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Spaces for Talk: Information and Communication Technologies (ICTs) and Genuine Dialogue in an International Advocacy Movement

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Abstract

Despite the digital divide that exists between the developed and developing world, communication technologies such as the Internet are providing new opportunities for transnational advocacy. This paper explores issues of identity and co-operation between actors participating in the Global Campaign for Agrarian Reform (GCAR), led by the peoples' movement La Via Campesina, focusing on the application of Internet-based services. While the movement has successfully reframed the land reform debate within the global public sphere, and makes use of the World Wide Web in its role as a strategic bridge-builder within the Campaign, digital connectivity does not necessarily overcome challenges of participation and representation.

Keywords: Communication, Social movements, The Internet, Advocacy, Civil society, Agrarian reform, Human rights

Introduction

When union leader and peasant farmer Henry Saragih was named one of the “50 People Who Could Save the Planet” by *The Guardian* this year, it may well have been the first time many readers had heard of La Via Campesina, the global movement Saragih heads as General Coordinator (Vidal 2008). Based in Indonesia, La Via Campesina is an international peasant movement comprised of over 130 organizations actively campaigning for land reform in 60 countries in Asia, Africa, Europe and the Americas (Menser 2008). This global alliance of peasant, family farm and landless peoples' movements continues to play a leading role in promoting agrarian reform at World Social Forums, Latin American Social Summits and anti-FTAA meetings. With the Food First Information and Action Network (FIAN), La Via Campesina initiated the Global Campaign for Agrarian Reform (GCAR) to unite local movements in promoting “food sovereignty” - the right for people and nations to define their own agricultural and food policies according to the needs and priorities of their own communities.

Digital networking is increasingly a feature of the organisation of social movements. Despite the long-standing “digital divide” (World Bank 1998) between the developed and developing world Information Communication Technologies (ICTs) are facilitating global connectedness, enabling the co-ordination of action, the extension and consolidation of networks and new forms of media activism. The Internet, and in particular the World Wide Web, has given social movements more power to shape a public image, altering “the landscape of protest” (Owens and Palmer 2003). However despite the “horizontal networking logic” (Juris 2007) of new digital technologies and their potential to engage local, resource-poor organisations and movements in global campaigns such as the GCAR it is actors at the “sending end” of the campaign (Hertel 2006) who determine how the issue is defined and framed. Driven by the need to complete in what Clifford Bob (2005) calls the “transnational support market” (Bob 2005), powerful actors or movement “brokers” (Anheier and Katz 2004) define standards for the campaign according to their perception of what will resonate with the media, donors and other global publics. Messages must appeal to the agendas of distant audiences to gain support (Warkentin 2001; De Chaine 2005) while the movement itself potentially alienates its base through promoting goals and targets that are incompatible with local initiatives.

Movement dynamics, particularly the connectivity and linkages of networks on local, national and global levels, has been neglected in studies of what Borrás (2008) calls “transnational advocacy movements” (TAMs). This paper aims

to identify and describe some of the key issues of identity, diversity and co-operation that face actors in TAMs, through the GCAR case study. An analysis of hyperlinks, web pages and online news updates suggests that while the movement has been successful in reframing and presenting the terms of the land reform debate around the concept of “food sovereignty” and the agency of peasants, local issues are not foregrounded sufficiently to fully reflect the diverse agendas of grassroots members. New digital technologies are incorporated into existing communication routines however the opportunities of these to “facilitate open participation and debate” (Juris 2007) are not yet exploited within the Campaign.

1. Methodology

This study applies a network approach in exploring issues of identity and co-operation between actors within transnational advocacy movements through a case study, the Global Campaign for Agrarian Reform. The case study method has been selected as a means to “investigate a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin 2003: 14). This acknowledges that contextual conditions are highly relevant to the phenomenon of study.

Movements can be defined as informal networks of actors – organisations, groups and individuals – “engaged in conflicts for the control of material or symbolic stakes, on the basis of shared identities” (Diani 2000). Manuel Castells argues that within our “network society”, enabled by advances in telecommunications, meta-networks are constructed at a transnational level, facilitating “decentralised concentration” where tasks are completed simultaneously at multiple sites (Castells 2000). Castells speaks of the “spaces of flows” where processes of communication occur. These spaces, comprised of manifold exchanges and interactions, have overcome the territorial barriers of state and neighbourhood through their flexibility and adaptiveness. Within the space of flows “nodes” and “hubs” form anchors for social organisation. Harasim (1993) refers to “networks” to describe the virtual “places” where networking occurs.

Social network analysis seeks to describe networks, trace information flows and reveal the effects of these on individuals and organisations (Wasserman and Galaskiewicz 1994). In doing so, it aims to reduce the complexity of social interactions. In Web-based social analysis the source of the networked information is commonly the World Wide Web, where hyperlinks, consciously created by site authors, represent a relationship between web sites. As such, hyperlinks represent social relationships (Jackson 1997). The hyperlink structure of the Web also influences its use as a news medium by dictating “which information is consumed and by whom” (Owens and Palmer 2003). Network analysis goes beyond the boundaries of the nation-state, overcoming what has been described as “methodological nationalism” (Anheier, Glasius et al. 2004). Unlimited by geographical or political units, network analysis is most concerned with the structure of relations between actors. Connectedness, rather than attributes, is the focus of network analysis. A “map” of a network on the World Wide Web can illustrate strategic alliances built around a worldwide movement. Accordingly, this analytical framework is well-suited to the study of actor interaction in relation to the Campaign. Chains of interaction link local, national and global bodies within the movement, within which La Via Campesina plays a key role as a central node and “movement broker” (Anheier, Glasius et al. 2004). This kind of network, where one actor is the focal node, is said to be “egocentric”. Egocentric network analysis is particularly useful in exploring relations within organisational task environments and in evaluating the social capital, or “connections”, possessed by individual actors (Anheier and Katz 2004).

This study focuses on the places or virtual spaces where communication occurs, the types of technology used to communicate and the directions of informational flows within the GCAR network. Data includes hyperlinks to members of La Via Campesina, pages dedicated to the GCAR on the World Wide Web, and electronic updates issued via the Campaign’s Internet-based distribution list between January 1 and May 28, 2008.

2. The Genesis of the Global Campaign for Agrarian Reform

Land reform has become an increasingly significant issue on the global agenda of civil society as issues of food availability, the genetic modification of crops and debates over biofuels have emerged. The initiatives of supranational institutions including the World Trade Organisation and the World Bank are considered by many civil society actors to have failed (Rosset 2004; Desmaris 2003; Woods 2001). Land occupations in Brazil, Mexico’s Zapatista Rebellion in 1993 and the Zimbabwe food riots of 1998 were key events signaling a new era of “Land Reform from Below” (Rosset, Patel et al. 2006). On October 12 1999, La Via Campesina joined with FIAN to launch the GCAR. United under the banner “Food, Land and Freedom” peasants joined human rights activists in Asia, the Americas and Europe in mobilisations, land occupations and other events to demand the right to land and security of land tenure as essential to the human right to food.

The Campaign aims to support peasant movements in their national struggles for agrarian reform and facilitates exchanges between these movements to examine the nature of struggle in various countries. Tactics include lobbying governments and international institutions and establishing emergency networks for international intervention in cases

of human rights abuses in conflicts over land. Historically, the criminalisation and persecution of peasants who exercise democratic rights to organise and express their views and self-determine has been ignored as a human rights issue (Desmaris 2002). According to the Human Right to Food, presented in Article 11 of the International Covenant on Economic, Social and Cultural Rights (UN 1966), peasants are entitled access to productive resources, specifically land. International human rights law sets standards and defies unjust frameworks that negate the necessity of instituting agrarian reform programs. In 2002 GCAR brought attention to gender inequalities in the management of rural land reform (Suarez 2005). Such strategic overlapping and broadening of frames enables Campaign actors to leverage internationally recognised social and economic rights and participate in “collaborative campaigning” with human rights NGOs (Nelson and Dorsey 2003).

Adopting a human rights-based approach to development, the GCAR encompasses a broad range of issues related to food sovereignty including global trade; the management of genetic resources and biodiversity; human rights, gender and rural development; sustainable peasant agricultural models; migration (urban/rural; international) and farm-workers’ labour rights. Rights-based approaches to development are challenging the market-dominated view of development that flourished in the 1980s, providing new sources of influence for advocacy and international standards of accountability (Nelson and Dorsey 2003). The broad, holistic concept of food “sovereignty” places the interests of peasants and small-scale farmers at the centre of the debate:

Food sovereignty is the RIGHT of peoples, countries, and state unions to define their agricultural and food policy without the “dumping” of agricultural commodities into foreign countries. Food sovereignty organises food production and consumption according to the needs of local communities, giving priority to production for local consumption. Food sovereignty includes the right to protect and regulate the national agricultural and livestock production and to shield the domestic market from the dumping of agricultural surpluses and low-price imports from other countries. (La Via Campesina 2008)

Unlike market-led agrarian reform, food sovereignty favours national agricultural production over imports and supports sustainable development. The right not only to food but to produce food clearly extends beyond the current definition of food “security”, which focuses on availability. The GCAR argues that genuine security equates to access to productive land and fair prices for crops to allow farmers to make a living. Priority of market access must be given to local producers, requiring supply management and regulation. La Via Campesina disagreed with the Global Forum on Agricultural Research (GFAR) Dresden Declaration (2001) that relied on science, biotechnology and genetic engineering as solutions to poverty, food insecurity, loss of biodiversity and environmental degradation, arguing that research should be farmer-driven and designed to meet the needs of small farmers, and be taken out of agribusiness control (Desmaris 2003).

Based on the platform of “the struggle for the right to feed oneself” (La Via Campesina, 2008), the GCAR is designed to articulate the movement’s direct reaction against market-led agrarian reform (Borras 2008). This strong expression of political will was expressed clearly through La Via Campesina’s rejection of the NGO declaration on the peoples’ right to food in Rome at the World Food Summit in 1996 (Mulvany 1997). The liberal-market perspective of the Summit’s Plan of Action was seen by the movement as a clear indication that NGOs with the same “market-access focus” can no longer speak on behalf of or be representatives of peasants and farmers. Accusations of paternalism, co-optation and the “dumping” of imported grain in the guise of “economic assistance” are among criticisms of the “aid industry” (Lewis and Wallace 2000).

According to Raj Patel (Rosset, Patel et al. 2006) the failure of neoliberalism has fuelled the repoliticisation of those excluded from debate. The only resources available to peasants are organisation, cooperation and community, exercised through political struggle, direct action and strategic linkages with other actors in global civil society (Desmarais 2007). Historically, land occupations are one of the most effective, proven methods of pressuring governments to act (Barraclough 1999). Largely non-violent poor people’s movements have mobilised in Brazil, Paraguay, Bolivia, Honduras, Nicaragua, South Africa, Zimbabwe, Indonesia, Thailand and India (Rosset, Patel et al. 2006). A key feature of successful reforms is the role of farm families as key actors mobilised in national development, framed as agents of change rather than indigents in need of charitable assistance.

3. Strategic Communication within the GCAR

Collective action, through its form and organisation, is a “message broadcast to the rest of society” (Melucci 1996). Campaigns such as the GCAR are processes of issue construction that provide a common frame of meaning. Deliberate attempts to co-ordinate movement activities around a specific issue or event, campaigns aim to communicate a message beyond the informed to reach general publics. Through campaigns networks of actors disseminate “movement frames” (Benford and Snow 2000) which define problems and solutions.

Organised protest requires mobilisation. In spearheading the GCAR, La Via Campesina has become a “movement broker”, driving the mobilisation of other actors within the diverse network (Anheier, Glasius et al. 2004). Networks

provide “political spaces” where the purpose and meaning of the actors’ “joint enterprise” is negotiated (Keck and Sikkink 1998). Routine contact between actors formalises transnational ties and facilitates the mobilisation of resources for collective action. Coalitions, described by Margaret Keck as “networks in action mode” (Fox 2005), coordinate shared strategies to publicly influence social change, often through protest or disruptive action. These strategies are manifested in “transnational campaigns” such as the GCAR. In this type of international campaign sets of actors with common purposes and solidarities, linked across state boundaries, generate coordinated and sustained social mobilisation along with more focused periods of activism in more than one country.

The GCAR implements strategies that work on both global and local levels. Internationally, formal alliances and collaborations are sought to secure concessions and expand “invited spaces” for civil society participation. La Via Campesina recognises that those accepting basic premise of neoliberal globalisation have greater access to institutions than grassroots organisations that are highly critical (Desmarais 2003), and hence strategically favours sector alliances with strong global players including the Land Research and Action Network (LRAN) and Food First and Information Network (FIAN). La Via Campesina has also established thematic alliances with related movements promoting organic food and those rejecting genetic modification (Borras 2008). On the ground, national volunteer organisations (VOs) lead in organising, advocacy and public education in their own countries, gaining support from international VOs in lobbying Northern governments and international assistance agencies (Korten 1990). La Via Campesina is considered an “influential” participant in the World Social Forums, notably in Porto Alegre, Brazil in 2001 and Mumbai, India in 2004 (Patomaki and Teivaninen 2004).

Aware of how participation can be used to “co-opt” a movement, “diluting or silencing opposition”, La Via Campesina is wary of international institutions that try to impose a “multistakeholder” approach, where the interests of NGOs, social movements and even agribusiness are aggregated into one political space (Desmarais 2007). The movement has refused to participate in fora that require compromising commitments to democratic representation, insisting on a thorough nomination process to identify the right spokesperson for a particular event. This is done through regional co-ordinators who nominate candidates based on their expertise on the theme of the forum and their need for experience or exposure in the international arena. Insistence on grassroots representation has helped to overcome prejudicial views that farm workers, the landless and peasants are not educated or sophisticated enough to speak for themselves. Reclaiming the word “peasant” and refusing to adopt the English translation of “farmer” in the nomenclature of the movement is testimony to this commitment (Desmarais 2007).

The increased professionalism and pro-activity of the movement has also been facilitated by collaborative efforts with other actors in coalitions such as “Our World is Not for Sale”. On November 6, 2001, the coalition launched the campaign “Priority to People’s Food Sovereignty- WTO out of Food and Agriculture”. This focus on a common target serves to create a sense of solidarity between movement actors even when their individual agendas may differ. This year La Via Campesina named “Agribusiness Transnational Corporations (TNCs) Create World Food Crisis, Peasant Seize Back Their Rights” as the theme for its April 17th International Day of Peasant Struggle:

The theme is taken as result of our reflection that most of the violations of peasant rights such as poverty, hunger, intimidations, physical violence to death, various calamity (sic) resulted (sic) from environment destruction is because of the greediness of agribusiness TNCs operation. The operation can be through the international financial institutions (IFIs), WTO, Free Trade Agreement/ FTAs, Economics Partnerships Agreements/ EPAs, but it is the agribusiness TNCs that take the profit on the suffer (sic) of majority world peasants and ordinary people. (Saragih 2008)

Delegitimising or shaming public institutions such as multinational corporations and institutions through systematic campaigns and direct action is a means of attracting media attention. In August 1999 in Millau, France, activists opposing the importation of hormone-fed beef dismantled a McDonald’s outlet in a non-violent protest. Spokesperson Jose Bove was subsequently interviewed with Mike Moore, former Director-General of the WTO, and Venezuela’s Hugo Chavez on international media. Bove’s trial attracted 100,000 spectators. La Via Campesina was among global movements that played a vital role in anti-globalisation protests in Seattle, a “prime-time media event” framed by newsmakers as the “Battle for Seattle” (Juris 2007).

In contrast with Seattle, much direct action is not broadcast widely and relies on the alternative media. Most recently, on May 22, 2008, activists “disrupted” the UN Convention on Biodiversity in Bonn in protest that “not one farmer, pastoralist, fisher, or Indigenous Peoples’ representative was invited to participate” in the event (Delforge May 27, 2008). Little mainstream media interest in protest was generated. However on the World Social Forum’s “television” site, www.wsf2008.net, La Via Campesina, in partnership with Babun Media, Metropoli Video Films and German activists, presented a 12 minute video focused on peasant viewpoints, addressing concerns that “the big agroindustrial multinationals as Monsanto, Dupont, Syngenta, Limagrain, Bayer and Pioneer are pushing for the wider introduction of transgenics (including the so-called Terminator Seeds) and the further industrialisation and commercialization of agriculture - as solutions to the so-called “food crisis” and climate change” (Ploger 2008).

Achieving foreign recognition via the media and other channels increases a movement’s legitimacy and provides an

important psychological boost to members (Bob 2005). Clifford Bob's marketing perspective of the dynamics of transnational support-seeking emphasises that successful movement framing highlights issues that resonate internationally, which has important implications for the selection of action frames for the GCAR:

"Global civil society" is an arena of sharp competition where myriad weak groups fight for recognition and aid. It is a sphere in which hard-nosed calculation of costs and benefits constantly competes with sympathy and emotion. And it is a place where the real needs of local people are one factor, not necessarily the most important, in sparking international activism. (Bob 2005: 195)

4. Identity, Diversity and Co-operation

Within the transnational public sphere created by movements engaged in a campaign participants experience a sense of membership or belonging (Fox 2005). The development of collective identity is the result of exchanges, negotiations, conflicts and decision-making. A campaign such as the GCAR provides a focal point that can unite diverse actors – to a degree.

Transnational advocacy movements (TAMs) constantly face the challenge of establishing a common frame of meaning for network actors or "nodes" – individuals and organisations in the framework (Anheier and Katz 2004). Challenged by the need to represent local movements with class, ideological and political differences along with diverse objectives, alliances and ways of working, TAMs are "arenas of interaction" rather than independent, unitary actors. Representation, globally, is inherently linked to agenda-setting and issue-framing within TAMs and is essential to any claims of validity they make (Borras 2008).

The diversity of La Via Campesina poses challenges. The movement represents tens of millions of small farmers, fishermen and women, rural workers and the landless. It is divided into seven regions: North and Southeast Asia, South Asia, North America, Central America, South America, the Caribbean, and Western/Eastern Europe. To facilitate the participation of its broad member base in gathering facts, debating policy and agreeing on strategy, regional assemblies meet and nominate delegates that convene every three years. Two members from each region become part of the Internal Coordinating Commission (ICC), the key decision-making body of La Via Campesina (Menser 2008). This horizontal structure is complicated by patriarchy and sexism, addressed in part by the formation of a Woman's Assembly (Desmarais 2006).

Class and ideological differences between national actors are an additional challenge to co-operation. For example, India's KRRS movement is primarily comprised of middle-class and rich farmers. Eager to avoid class issues, KRRS prefers to focus on anti-TNC (transnational corporation) and anti-GM campaigns. Their land reform platform extends to the ownership of urban industrial property but opposes legislative restrictions on the ownership of rural land (Borras 2008). Organisations clearly possess differing motivations for their cooperation in movements (Bandy and Smith 2005).

Regional tensions challenge other areas of the movement. "Gatekeepers and bottlenecks" are created when the membership process places responsibilities on national and regional levels (Desmarais 2007). La Via Campesina has a policy of not intervening in domestic issues however internal differences have spilled into the movement. The first example was occurred in the Philippines in 1993 when disagreements between local movements dKMP and KPM severely hampered preparation for an NGO Parallel Forum, necessitating a shift in venue to Mexico. Within Mexico poor communication between the five domestic members was attributed the lack of a common national project. "We do not have the perspective of working together even though, theoretically, we share the same orientations and agenda" (Desmarais 2007). The complexity of "working together" is truly demonstrated in the fact that one of those Mexican organisations, UNORCA, represents 2,700 domestic bodies with a total membership of 400,000 affiliates built up over 15 years (Desmarais 2007).

In some regions extending the network has been problematic for other reasons. Low levels of membership in the Southeast Asian region are attributed to internal divisions, leadership styles, political differences and language barriers (Desmarais 2008). Only nine Southeast Asian groups participate in comparison to 20 South Asian movements (La Via Campesina 2008). Sub-Saharan Africa, the Middle East and China remain poorly represented (Menser 2008), despite the importance of these highly populated and volatile regions in global land and food debates. To date only five groups represent the entire African continent (La Via Campesina 2008).

Resource-poor grassroots organisations, particularly those lacking clear leadership, can benefit from global partnerships within TAMs, using the influence of strong friends to confront regional competition, ideological differences and cooptation from governments or paternalistic NGOs. In accepting such benefits they sacrifice a degree of independence and agree, implicitly and otherwise, to a representation in global forums. Actors must assess the "transaction costs" they will incur, which involves balancing the realities of competition with the benefits of cooperation (Zald and McCarthy 1994). They experience collective identity formation, and in building an "action system" form expectations and assess the "possibilities and limits of their own action" (Melucci 1996). Identity "crystallises" into organisational forms, leadership structures and sets of rules or norms within which cognitive definition or "framing" takes place. These

frames must make community-oriented issues salient across international borders, while remaining grounded in the local - balancing the autonomy of members with international cooperation and collective action. Interaction poses unique challenges for local actors in retaining their identity while becoming part of a global movement. Weaker movement actors, including “late mobilisers” (Borras 2008) are in danger of their voices being drowned out at the expense of stronger, well-established actors (della Porta 2007), particularly if they do not possess the social and political resources to stage direct action that attracts media attention. Historically, La Via Campesina has been dominated by “founding organisations” in Central and South America, whose relationships extend back to the constitutive conference in 1993 and have been facilitated by commonalities in language and culture (Desmarais 2008). For many years the International Operative Secretariat was based in Honduras, Central America. South American members now number 29 and comprise over 20% of the total movement (La Via Campesina 2008).

As the movement has grown, centralisation of information, administration and power has posed a challenge for maintaining the “flat” structure of the network. Collective protest requires “deliberate organisational effort” (Rucht 1999). The process of organisation itself inevitably leads to the development of a hierarchical structure, according to Robert Michels’ (1962) “iron law of oligarchy”. This tendency to become more centralised-bureaucratic over time is attributed to the reality that “the sheer problem of administration necessitates bureaucracy...the price of which is the concentration of power at the top” (Michels 1962). Gamson (1975) argues that bureaucratic bodies achieve their objectives more readily than those that are horizontal in structure. “The quest for ‘effectiveness’ makes desirable and necessary the elaboration of vertical political structures” (Routledge, Cumbers et al. 2007). The inevitable, and essential, institutionalisation that is required to “get things done” administratively is exhibited in actions such as collating and distributing press releases and special reports, making calls to action and initiating online conversations – carried out largely by movement brokers such as La Via Campesina.

5. Localising the Global

The rapid development of information technologies has greatly enhanced the capacity of geographically dispersed civil society actors to build networks, coalitions and movements (Frederick 1993; Capra 2002; Langman 2005; Juris 2007). There is optimism this intensive interactivity leads to more democratic participation and cross-cultural understanding (Young 1992; Langman 2005), and that technology can help to overcome some of the well-documented challenges of incorporating “grassroots” input and participation into international development initiatives (Korten 1990; Boli and Thomas 1999; Eade and Pearce 2000). In theory, by bridging the digital divide - “connecting” and engaging the global poor - access to technology will aid development. This enthusiasm is driven by initiatives including the World Summit of the Information Society and a body of literature that promotes “ICT4D” or “Communication for Development” (Mansell 2006).

Access to online content and the ability to send and receive emails clearly makes real choices available to actors, and can be used to attract global attention, as demonstrated in the Zapatista uprising in Mexico in the early 1990s. Recognised as the first movement to employ “net warfare” (Garrido and Halavais 2003) the Zapatista’s skillfully used the World Wide Web to widen public discourse beyond mainstream media. In doing so they provided the inspiration for subsequent anti-globalisation activists. Platforms such as Econet, which links 10,000 activists and NGOs in 90 countries, demonstrate the role of new technologies in mobilising social capital by engaging influential social allies online (Ebo 2001).

As of May 2008, 128 member organisations, and seven “candidate” members were named on the La Via Campesina web site. Only 33 of all members offer hyperlinks, which are largely skewed toward the European region, which presents a total of 16 links, reflecting the North – South technological divide. The remaining 95 members nominate only 17 web sites, collectively. The absence of an online presence may reflect the size of these organisations and their access to technical resources and expertise. Links between ICT and poverty are well-established by the UN Human Development Index in terms of internet hosts, telephone lines and personal computers per 1000 people (UNDP 1999). ICTs are frequently poorly designed for users in developing nations, and packaged in Western values and preferences, presenting another barrier to adoption (Mansell 2006; Nielsen and Heffernan 2006). Connectivity; location; gender, race and class issues; organisational characteristics; geography; level of education and range of vision are some of the variables that may explain remaining unwired (Kole 2001). Once connected, it is only through learning “netiquette” – the languages, values and norms of the Internet - can one become an experienced user or “netizen” (Kole 2001). If hyperlinks do in fact represent social relationships (Jackson 1997) the absence of these may limit access to what Owens and Palmer (2003) call “in-group” communication – that which occurs among members of the same group and reinforces solidarity.

Two clusters of “nodes” or actors appear in the La Via Campesina network. Within these groups network density is at its highest; members are the most “densely-knit” and “tightly bounded” in the network. In comparison the rest of the GCAR network is sparsely-knit, with network members sharing only one link or “tie”. A tie connects a pair of actors by one link or relation (Garton, Haythornthwaite et al. 1997). For most actors in the network this tie is La Via

Campešina. Stanley Milgram's (1969) "small world theory" demonstrates that even large, sparse networks experience a high degree of clustering. Most nodes may have few links to others while a minority of well-connected "hubs" bridge the distances between other actors. Geography and political alliance play a role by providing pre-existing groupings and established relationships. This is the case where WINFA, the Association of Caribbean Farmers, Windward Islands, provides a bridging role for movements in Grenada, Dominica, St. Lucia, St. Vincent and Martinique. The second, larger cluster of GCAR actors is represented by the European Farmers' Co-ordination (CPE) which unites 32 farmers organisations in Germany, Italy, Belgium, Portugal, France, the United Kingdom, the Netherlands, Hungary, Sweden, Norway, Spain and Switzerland in a grouping loosely based on the European Union (EU).

The benefits of clusters or cliques include the convenience of existing connections and the capacity, and desire, to focus resources on regional initiatives. For example, the European Farmers' Co-ordination is united in rejecting the existing Common Agricultural Policy (CAP), established according to WTO criteria, on the basis that it is "not legitimate from either the international or social points of view and ruins the environment, health and product quality and turns farmers into people dependent on aid but without economic and social recognition" (CPE 2007). A further, higher level of co-operation is witnessed in the unity of African, Caribbean, Pacific and European actors in rejecting the Economic Partnership Agreement (CPE 2006). Hence many "sub-campaigns" are generated within the GCAR through the network that La Via Campešina facilitates.

In playing a central role in connecting actors or "nodes" throughout the GCAR network, La Via Campešina possesses greater access to and potential control over information within the communication network (Krackhardt and Brass 1994). It thereby controls informational resources, which increases the dependence of other actors. The degree of centrality measures one's power within the ego-network. While the Internet's "reticulate network structure" reinforces the horizontal logic of social movements (Juris 2007) it has been proposed that network centrality is equally or more important than hierarchical rank in predicting power, as measured by involvement in administrative activities (Krackhardt and Brass 1994). As an actor's importance increases and it facilitates flows of information between others it serves as a broker, enabling connections and fostering coalitions that previously did not exist.

Movement brokers are also described as "synapses" or "relays" (Fox 2005), terms that succinctly describe this key communication role as connector or bridge-builder. Paul Routledge, in his study of global justice networks, refers to key organisers as "imagineers" whose work in organising key events literally creates or produces the network itself (Routledge, Nativel et al. 2006). The principle means of materialising the GCAR network has been through the La Via Campešina and Food First Information and Action Network (FIAN) web sites and a yahoo email list (Newell 2008), performative events including conferences, and global days of action. La Via Campešina's International Operational Secretariat reports on local initiatives through electronic news updates. La Via Campešina's electronic news updates between January 1 and May 28, 2008, focus on a wide range of issues: biosecurity and biodiversity; the world food crisis; civil society; women, food and power; and biofuels. The updates include media releases, position papers, media advice, open letters, new publication alerts, "conversations" or interviews and calls to action. These communications frequently share links to other activist networks, including the World Social Forum (WSF) web site and Indymedia.com, an alternative media source that often receives several millions hits a day (Langman 2005).

In its news updates La Via Campešina promotes a global structure deeply rooted in local issues and the realities of regions. Regions are encouraged to mobilise and are free to choose the focus of collective action, which is then reported on. For example, an appeal to members for action on April 17 - 'The international day of peasant struggle', commemorating the murder of 19 MST activists in Eldorado do Carajás in Brazil in 1996 -was issued by Henry Saragih, General Coordinator of La Via Campešina. Members were encouraged to send the International Operative of La Via Campešina reports and information "on the impacts of agribusiness TNCs that create hunger, poverty for family farmers and peasants" and to organise "seminars, public discussions, actions, mobilisations, press conferences" to "expose the impacts of agribusiness TNCs and to delegitimise their role in the food sector" (Saragih 2008). Subsequent emails describe these activities, which include a general assembly held by the Indonesian Peasant Union in Jakarta, marches against soya producers in Argentina, exhibitions and rallies in Germany and a conference to discuss food policies in Cameroon (La Via Campešina 2008). Links to web pages provide further details on these and other events, as well as contact lists, policy papers and other documents. A new innovation is a picture gallery containing static photographs and video files.

Communications are mediated by the International Operational Secretariat (IOS). Informational resources about the Campaign are centralised the La Via Campešina web site, www.viacampesina.org, while relevant pages also appear on the FIAN web site, www.fian.org. There is no independent GCAR web site, which may be interpreted as attributing "ownership" of the campaign to the initiating organisations. In these modes of communication the distinction between source and receiver is a measure of prestige, marking the difference between "leaders and followers" (Krackhardt and Brass 1994).

Grassroots actors may accept this asymmetrical method of information sharing until the frames presented by the

campaign “shapers” do not fit with local objectives. “Receiving-end” activists commonly have fewer political and material resources than “senders”, and as a result opt for alternative ways of influencing the meanings or frames central to the campaign. Shareen Hertel (2006) has identified “blocking” and “backdoor moves”, played out within networks. In campaigns opposing child labour in Bangladesh and pregnancy screening in Mexico, Hertel identifies grassroots resistance to dominant frames through refusal to participate (“blocking”) or more subtle readjustment of campaign frames to fit local contexts (“back-door moves”). In both campaigns local activists emphasized a “different, or fuller, interpretation of those rights than the one put forward by advocates on the *sending end* of the campaigns” (Hertel 2006: 17).

Strengthening ties on national as well as international levels is vital to the success of La Via Campesina and effectiveness of the GCAR. However members have suggested that in focusing resources on campaigning to attain the international stage lack of attention to internal structuring within the movement has resulted in “less communication and fewer spaces for internal debate”. Member Pedro Magana believes La Via Campesina could provide better opportunities for leadership building and learning. Regional reporting “doesn’t facilitate real exchange” (Desmarais 2007: 159). In concentrating the information and decision-making the movement risks alienating its membership base.

Conclusion

The value of e-campaigns has been demonstrated, from the Zapatista’s ground-breaking “netwar” to online mobilisation against the Multilateral Agreement on Investment and the subsequent WTO protests in Seattle. Within many movements, however, Internet services are merely an innovation of traditional civil society tactics (Surman and Reilly 2003). Many NGOs and civil society movements have not found ICTs to be an adequate replacement for traditional methods of campaigning (Lebert 2003). In fact use of new technologies frequently involves “the adaptation of traditional tactics”, which Graham Meikle calls “backing into the future” (Surman and Reilly 2003). Internet use has been used to complement and facilitate face-to-face interaction rather than replace it. The “virtual public spaces” provided created by new technologies must be supported by social interaction through “solidarity-affirming collective gatherings” (Langman 2005).

The challenges for La Via Campesina in uniting the diverse actors participating in the GCAR include class differences, ideological differences and limited representation. Despite its claims, the movement is not truly global. Language issues prevail (Routledge 2000). Though Indymedia activists attest to the efficiency of global listservs in co-ordinating translations by fellow-activists (Juris 2007) the predominance of English on the World Wide Web is broadly criticised (Ayles 1999). Issues of power and influence within the GCAR network include early or late mobilisation, the quality of linkages, the capacity to launch dramatic actions against transnationals and existing tension between actors, some of whom are excluded from the network on class/ ideological grounds (Borras 2008).

As a “movement of movements” La Via Campesina faces great challenges in presenting relevant action frames that satisfy the needs of all actors while still resonating with broader global publics. Bennett (2003) argues that Internet-driven campaigns are “ideologically thin” to permit a diversity of political perspectives to co-exist. However campaigns still require compelling action frames that resonate with global audiences to be able to compete for scant resources and media attention (Bob 2005).

In representing the broader activities and achievements of the GCAR a “global lens” is required, one which acknowledges the different types of everyday unstructured action carried out by grassroots members. Borras suggests a “sandwich strategy”, combining global issue framing and initiatives with local and national campaigns that impact domestically (Borras 2008). The communication of shared experiences will motivate and inspire other movements (Routledge, Nativel et al. 2006), while providing multiple opportunities for genuine dialogue. Establishing enabling technologies in the form of dynamic communication hubs, where grassroots activists can generate their own content and capture their own activities in digital formats for uploading to the World Wide Web, will require investment and training. Juris (2007: 360) refers to the networking logics of movements such as MRG (The Catalan Movement for Global Resistance) and PGA (Peoples Global Action) where “network-based politics involve the creation of broad umbrella spaces, where diverse organisations, collectives and networks converge around common hallmarks while preserving their autonomy and specificity”. Real-time discussion forums, Internet relay chatrooms, open publishing and production projects that allow activists to write, post and distribute their own stories empower by “reversing the implicit hierarchy” (Juris 2007) dividing movement broker and grassroots actor.

New digital technologies can provide peasants with the agency to adapt campaign frames to fit local circumstances and the capacity to present these to the world, providing a multitude of new interpretations. The broad values of horizontal collaboration, open access and direct democracy can be embedded in network architecture through the use of such technology. Despite the inherent challenges to social movements, as they constantly “cleave and converge” (Diani 2000), the possibilities for genuine dialogue and participation abound.

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A Study on Applying the Variation Theory to Chinese Communicative Writing

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Abstract

This study attempted to apply the variation theory to teach Chinese communicative writing. The aim of the study was to exhibit the students' capability of experiencing the phenomena in different ways and so showed qualitative difference in their approach to writing. It was hoped that the result would shed a new light on reducing the problem of students' writing in monotonous ways and lack of focus in the future. 38 students in a Primary 5 class took part in the study. Three learning tasks were designed and systematically structured to help to facilitate students' discernment of the critical features of Chinese communicative writing, i.e., the communicative purpose, communicative targets and communicative messages. A comparison between students' writings before and after the study revealed qualitative difference in their writings. In the post-study writing, students showed clearer purpose of communication.

Keywords: Chinese communicative writing, Variation theory, Chinese subject teaching, Primary education

1. Background

The teaching of writing is one of the main concerns of teachers or educators. Being able to write proficiently seems to make evident of being having high language abilities. Indeed, writing has pragmatic value for people in their daily life. As Grabe and Kaplan (1996) pointed out, people engaged in different kinds of writing in the everyday world whereas these varieties "represent the ability to control the written medium of language to some extent" (p.3). Thus, it is the responsibility of teachers to help their students equipped with appropriate writing abilities for daily and future use.

Learning means to experience the phenomena and be able to discern its critical aspects (Marton & Booth, 2003). In addition to experiencing various use of language, students should be enabled to enrich their learning. As Marton, Runesson and Tsui (2004) said, "how the learning experience is being constituted by language is crucial to understanding how different ways of experiencing the object of learning are being brought about in the classroom" (p.25). Writing is a means for students to express what they see, hear, perceive, think, understand and conceptualize something in their experience in written form. Because they will experience the phenomena in different ways, what they write should also be different. However, the writings of Hong Kong students are always criticized as lacking of focus and expressing in monotonous ways. Something might be going wrong and it should be found out in order to solve the students' problem in writing.

Some teachers attributed the unsatisfactory performance to students' being unmotivated to write. Other teachers thought that the situation was due to students' being unable to grasp the writing strategies. As a result, various pedagogies have been used in the hope of improving students' motivation and writing skills. This seems to have effects on students' writing as motivation and writing strategies are essential for their learning to write. Writing motivation is important as we should have a fair understanding of what students "are expected to learn in particular situation" (Marton, Runesson & Tsui, 2004, p.3). However, it cannot ensure that the effects are stable or lasting. In other words, students who have learnt writing strategies might still be unable to transfer these skills in other situation. They may only mechanically display various skills in their writing. It is because they learn writing strategies without authentic experience as well as communicative targets and purposes. If students lack the opportunity of learning to experience the various phenomena,

they will be unable to discern the critical aspects which are essential for relating a learning experience to others (Marton & Booth, 1997). In other words, students need to experience diverse phenomena in order to discern the critical features of language usage. Consequently, they can use appropriate language to meet the demand of different contexts in their daily life. Furthermore, it cannot be claimed that various pedagogies are critical therapy for students' problem in writing. Pedagogy still signifies much stress on the teaching acts rather than the learning acts. With reference to these ideas, this study attempted to apply the variation theory to teach Chinese communicative writing.

2. Variation theory and Chinese communicative writing

2.1 Variation theory

The variation theory of learning was developed by Marton and Booth (1997). It "is not a theory of the mechanisms of learning but a theory of the relation between the object of learning and the learner" (Runesson (2006, p.406). The object of learning is broadly regarded as "the complex of different ways of experiencing the phenomenon to be learned about" (Marton & Booth, 1997, 162). Specifically, it may mean the capability of do something with something (Marton, Runesson, & Tsui, 2004). To learn means to experience while to experience means to be aware of certain aspects in a given context and relate them to this context. Discernment of these aspects varies and comes to the forefront of focus simultaneously as a result of different ways of experiencing by individuals. Moreover, only experiencing variation, which is a decisive condition for learning, can evoke discernment of these aspects. However, not all the aspects are significant for learning. A critical aspect of the object of learning contributes to a particular meaning in the learner's awareness. Only variation in the critical aspects is an essential condition for learning (Holmqvist, Gustavsson & Wernberg, 2007; Runesson, 2006; Wood, 2006).

There are four patterns of variation which can facilitate students' discernment of critical features or aspects of the object of learning. They are "contrast", "generalization", "separation" and "fusion" (Marton, Runesson & Tsui, 2004):

Contrast. Experience something else to compare it with.

Generalization. Experience varying appearance of an object.

Separation. Experience a certain aspect of something by means of varying it while other aspects remain invariant.

Fusion. Experience several critical aspects simultaneously.

In this study, the patterns of "separation" and "fusion" would be used.

2.2 Chinese communicative writing

When adopting a communicative approach to writing, an emphasis is placed on developing a sense of audience to whom the messages of writing are conveyed. Factors facilitating or blocking the delivery of messages in the writing will be identified in order to enable the writers to communicate their writing messages to their communicative targets in more effective ways. These factors should be considered before and during writing. They include the status of writer, the status of reader, communicative intonation, communicative structure, communicative format, communicative agreement, communicative medium, communicative purpose, communicative objective and communicative context. Being able to discern these factors and make use of them in the writing will be considered as acquiring communicative writing ability. This ability should be part of the writing abilities that children should develop (Tse, 2002).

Each communicative target or each group of communicative targets is unique. It is supposed that the communicative messages should be different in response to diverse demand or expectation of various communicative targets or groups of communicative targets. These ideas are in coincidence with some objectives of the National Assessment of Educational Progress (NAEP) that students should "write for a variety purposes", "write on a variety of tasks and for many different audiences", "display effective choices in the organization of their writing", and "value writing as a communicative activity" (the National Assessment Governing Board, 1998, p.5). The awareness of the writing purpose, the audience and the task itself are essential in writing assessment while the audience is particular central to the scoring of the NAEP (Wolcott & Legg, 1998). Theoretically, students' writing should not be expressed in monotonous ways and lacking of focus if they have developed the sense of communicative targets, i.e. the audience. In short, the capability in communicative writing should be regarded as a benchmark on writing ability. This study intended to apply this notion to Chinese writing together with the idea of variation theory.

2.3 Object of learning and critical features in this study

When applying the variation theory, the development of students' capability in Chinese communicative writing is the object of learning while all these elements or factors are critical features in the writing phenomena. An authentic learning context can be structured so that students are given opportunities to experience and discern these critical aspects. Various communicative elements or factors can be embedded in the same writing scenario or one of them can be placed in various writing scenarios. This can enable students to separate these critical features which are essential for their development of communicative writing abilities. A writing task can also be designed so that students have to

experience communicative elements or factors simultaneously. However, it is difficult for students to discern all the communicative elements at the beginning of learning. It would be a great burden on them. Indeed, “only a limited number of aspects can be discerned and focused on at the same time” (Holmqvist, Gustavsson & Wernberg, 2007, p.183). With reference to teaching experience, the teacher who participated in this study expressed that her students seemed to regard writing as a homework assigned by her. The purpose of writing was to fulfill her expectation and the communicative target was only her. Thus, her students’ writings always expressed in monotonous ways and were lacking of focus. The situation seems to be popular in Hong Kong. After discussion with the teacher, it came to an agreement that helping students to develop a sense of authentic communicative purpose, target and relevant messages in their writing was in an immediate need.

In this study, the development of students’ capability in Chinese communicative writing should become the objects of learning in the writing phenomena whereas the communicative purpose, communicative targets and communicative messages were the critical features. A pattern of variation and invariance that served the function of “separation” and “fusion” was developed to show students that different communicative approach and messages with clear and definite communicative purpose would be used for different communicative targets; first to have students discussed and defined the communicative purpose of tasks, and expressed the different lines of thinking in accordance with the difference in the communicative targets of communication; then to discuss the background information of different communicative targets and the importance of selecting communicative materials relevant for the communicative targets. In short, three critical features designed for students’ discernment in this study were listed as below:

Given the same communicative purpose, the content of communicative messages should be in match with the communicative target.

Given the same communicative target and the communicative purpose, the content of communicative messages should be in match with the communicative purpose.

The content of communicative messages was relative to the communicative purpose and the communicative target.

3. Research design and methods

The study adopted a phenomenographic approach “in which the focus is on describing the qualitatively different ways people approach and perceive particular tasks in relation to particular” (Prosser, 1994, p.31). 38 students in a Primary 5 class of a local school in Hong Kong took part in the study.

3.1 Design of lesson

In the study, the patterns of variation and invariance in the object of learning and its associated critical features were identified from students’ different ways of understanding of the object of learning. A teaching plan of a double lesson was designed to help to facilitate students’ discernment of the critical features of Chinese communicative writing, i.e., the communicative purpose, communicative targets and communicative messages. It was unrealistic to think that the students’ writing would be significantly improved after 2 lessons of learning. However, the study tried to exhibit the students’ capability of experiencing the phenomena in different ways and so showed qualitative difference in their approach to writing. As Bowden (1994) points out, “teaching should not be viewed simply as an activity by the teacher per se but rather as an activity focused on enabling learners to make changes in their own thinking” (p.43). The result of this study, in our hope, would shed a new light on reducing the problem of students’ writing in monotonous ways and lack of focus in the future.

A double lesson was planned for the implement of the intervention. Three learning tasks were designed and systematically structured to help to facilitate students’ discernment of the critical features. A particular context was introduced in each learning task as “our experiences of anything are always embedded in a context” (Marton & Booth, 1997, p.96). In each task, a pattern of variation and invariance that serves the function of “separation” or “fusion” was developed to show students that different communicative approaches and messages with clear and definite communicative purpose would be used for different communicative targets.

(1) Learning Task 1

Context: It is very hot. You have just done exercise in a playground and feel very thirsty. You want to buy a soft drink stored in an auto-selling machine. But you find that you have a ten dollar money note and do not have any coins. You have to ask someone to give you change.

Task: There are four cards represented different persons. They are a friendly classmate, a ferocious stranger, a severe teacher and a naïve child. A student is asked to take one of the cards randomly and find out whom he/she will ask for a change of coins. He/she should consider the background information of the person and use suitable oral language to persuade him/her to give change. After he/she has finished his/her task, another student will come out, take another card, and does the task. When the student does the task, other students should observe how he/she attempts to achieve his/her mission. Afterwards, the teacher conducts a discussion among the students.

Critical feature: Given the same communicative purpose, the content of communicative messages should be in match with the communicative target.

The pattern of variation and invariance: Separation

(2) Learning Task 2

Context: One day, you meet young Edison who is nine years old. You want him to be your friend.

Task: At the beginning, the students read the information about young Edison. Then they form a group in four and are given ten items of speech which will be used to talk to Edison. They should consider the background information of Edison. They have to discuss and choose 3 items of which they think the messages will arouse the interest of Edison and so he is willing to make friends with them. Then they will share their thinking with other groups. Afterwards, the teacher conducts a discussion among the students.

Critical feature: Given the same communicative target, the content of communicative messages should be in match with the communicative purpose.

The pattern of variation and invariance: Separation

(3) Learning Task 3

Context: There are a number of people who have made contribution to Hong Kong. You really admire one of them. You want to have a date with him/her so that you can be more acquainted with him/her. You also want to learn from him/her. There is also a little child who is so sweet that you want to have a date with him.

Task: At the beginning, the students read the information about the people. The people include the Prime Minister of China, the Chief Executive of Hong Kong, a famous athlete and a popular singer. Besides, there is a little child who is lovely and the students may also want to have a date with him. The students will form a group in four. They will discuss and decide with whom they want to have a date. The students will write a letter to invite one of them. They should consider the background information of the person and decide what the content of letter is about. Then they will share their thinking with other groups. Afterwards, the teacher conducts a discussion among the students.

Critical feature: The content of communicative messages is relative to the communicative purpose and the communicative target which should be in match with each other.

The pattern of variation and invariance: Fusion

3.2 Pre-writing and post-writing

A writing task was designed for pretest and posttest. In the writing task, the students were asked to play the role of a junior tour guide in an ocean aquarium. Their responsibility was to introduce marine animal to the tourists. As Barone and Taylor (2007) said, "forms of writing used in writing assessment often are based on the purpose of the writing prompt" which can be provided texts or informational texts in expository writing (p.25). The students were provided a list of information about the whale. The writing task required them to choose among the information and write a pamphlet. Four tourists represented different roles would visit to the aquarium. They were a Primary 2 student, a teacher who taught the subject of history, a biologist and a green sweater worker. The students, being in the role of a tour guide, could choose one of the tourists and introduced the whale with reference to what they have written in the pamphlet. If the tourist was satisfactory with their performance, they could promote to the post of senior tour guide. Thus, they had a clear and definite communicative purpose in their writing. Their main challenge was to write the pamphlet in which the information of the whale should be able to arouse the interest of their particular customer. In other words, the content of communicative messages was relative to the communicative target as well as the communicative purpose.

Both pretest and posttest writing were the same. The students had to finish their writing within 40 minutes in school. The same researchers would read the students' writing without any indication of their names in a separate setting. The procedures of encoding the writing were the same. They would summarize the messages in every paragraph of the students' writing and sorted them into categories. Then they would compare their messages and categories to see whether they were matched. If there was any disagreement, they would read the writing again and tried to reach a compromise. Afterwards, they would encode the messages and categories and try to find out whether there were patterns of variation appeared in the students' writing.

The study would try to find out whether there was qualitative difference in the students' approach to the writing task before and after the intervention. As the objectives of Chinese communicative writing were similar to those of NAEP's writing assessment, the analysis of this study was based on its ideas of primary trait scoring. Whereas the communicative purpose, communicative targets and communicative messages were the critical features in this study, the traits included "audience and purpose", "details", and "organization" would be taken into consideration in the analysis. Furthermore, the scoring rubrics for the 4th grade students would be the references to the analysis because the grade level was near the age of the students. The descriptions of the advanced achievement level of these three traits in the 4th

grade of the NAEP were as follows:

Audience and purpose: Demonstrates effective, well-developed response based on allowable time limits; shows clear understanding of the writing task and the expected audience;

Details: includes details and elaboration that support main idea;

Organization: Is clearly organized, using consistency of topic of theme, sequencing or clearly marked beginning and ending (Barone & Taylor, 2007, p.20).

With regards to the above trait scoring, the qualitative difference in the students' approach to the writing task could be shown in the following ways:

Audience and purpose: In relation to the communicative purpose and the communicative target;

Details: What communicative messages (information) they had chosen for the pamphlet;

Organization: What communicative messages they wanted to convey at the beginning and the end of the passage, and how the messages were structured.

4. Analysis and results

4.1 Qualitative difference in pre-writing and post-writing

At the pretest writing, 23 kinds of messages have been summarized and 8 categories were sorted. One of the students has not taken the posttest. Therefore, the researchers examined the writings of 37 students at last. Among the 23 kinds of messages of the pretest writing, 20 items of them could be found in the posttest writing. The students had not chosen messages of "H", "J" and "P". Except category IV, the same categories could be sorted in the posttest writing (see table 1). A number of phenomena could be observed in the analysis of the students' writings. The findings were summarized as follows:

On the whole, the students have constructed the communicative messages in different ways though they have chosen similar communicative messages for writing their pamphlets. For each student, difference of communicative messages being conveyed could be found between his/her pretest and posttest writing.

Around 69% of the students have chosen a Primary 2 student as their communicative target in both pretest and posttest writing. About 65% students have not changed their communicative target in the posttest. However, about 58% among them conveyed different communicative messages at the beginning of their posttest writing. About 67% conveyed various communicative messages at the last paragraph of their posttest. About 35% students have changed their communicative targets in the posttest. Among them, about 46% modified their communicative messages at the beginning and about 62% altered their communicative messages at the last of their posttest writing. Among all the students, about 54% modified their communicative messages at the beginning and about 65% altered their communicative messages at the last of their posttest writing (see table 2).

When the communicative messages of the students' writing were sorted, it was found that 38% among all of them modified the category of content at the beginning and about 49% changed the category of content at the last of their posttest writing. Regarding to the students who have the same communicative target in the posttest, about 42% changed the category at the beginning of their posttest writing. 50% had a different category at the last paragraph of their posttest. Regarding to the students who have changed their communicative targets in the posttest, about 31% altered the category at the beginning and about 46% had various categories at the last of their posttest writing (see table 3). In short, the students had shown qualitative difference in their post-writing after the intervention.

The above findings suggested that there was a qualitative difference in choosing communicative messages between the students' pretest and posttest writing. The difference showed evidence that they tended to change their approach to tackle the challenge stated in the writing task. After the intervention, every student added or deleted some communicative messages for the posttest writing. They also reconstructed the structure of the writing content whether they have chosen another communicative target. Around half of the students tried to convey various communicative messages at the beginning and the last of their writing in the posttest. When the communicative messages were sorted into different categories, it was found that around 30% and 50% of them changed the categories at the beginning and the last of their writing. This might indicate that the students perceived and understood the writing task in different ways after the intervention. Some of them might become aware of the objects of learning, i.e. different communicative approach and messages with clear and definite communicative purpose should be used for different targets. As the National Assessment Governing Board (1998) stated, awareness of the "purpose of a specific writing task affects the ideas that are included, the way in which they are organized, and the manner in which they are expressed" (pp.7-8). If time permitted, further study by other means such as interview should be conducted in order to find out why and how the students had this change.

4.2 Subjects' Chinese communicative writing performance with reference to NAEP's writing assessment

With reference to the primary trait scoring of NAEP's writing assessment, the students had shown improvement in the traits of "audience and purpose", "details", and "organization" with 39%, 22% and 16% gains respectively (see table 4).

4.2.1 Audience and purpose

With reference to the messages and categories shown in table 1, it was comparatively reasonable that the students would had a broad introduction of whale or a brief introduction of their role at the beginning of their writing in order to meet the demands of the writing task. It could draw the attention of the tourist, their communicative target, on what they were going to introduce. It met the demands of the advanced achievement level of the trait of "audience and purpose" in the 4th grade of the NAEP as it showed "clear understanding of the writing task and the expected audience" (Barone & Taylor, 2007, p.20).

At the end of their writing, it would also better to state their communicative purpose further by means of some kinds of interaction such as asking the communicative target to protect the whale or invite him/her to come again. It showed "evidence of ability to engage audience" which was considered as the advanced achievement level of the trait of "audience and purpose" in the 12th grade of the NAEP (Barone & Taylor, 2007, p.20). Comments on the whale would also be considered to be logical ending as it might arouse the communicative target's interest.

At the pretest writing, about 37% of the students had a holistic introduction of whale while about 23% of them had a self-introduction of their role at the beginning. It seemed that more than half of the students had a clear communicative purpose. At the posttest, about 57% of the students had a holistic introduction of whale while about 11% of them had a self-introduction of their role (see table 5). The total percentage might suggest that more students had a clear communicative purpose at the beginning of their posttest writing.

At the end of their pretest writing, about 40% of them focused again on their communicative purpose. About 32% of them conveyed the idea of respecting the subsistence of whale. 3% of them invited the communicative target to come again. About 5% of them made a comment on the whale. However, nearly 60% of them just continued to describe the different aspects of the whale without any indication of asking for the interaction with their communicative target. Moreover, the second frequent message expressed by the students (18% of them) was the description of the phenomenon of "whale's spouting "water" (air)" at the end of their writing. It seemed to be not made sense. At the posttest, about 81% of them focused again on their communicative purpose. The percentage was much higher than the one of the pretest writing. About 67% of them conveyed the idea of respecting the subsistence of whale. 3% of them invited the communicative target to come again. About 11% of them made a comment on the whale. The most frequent message expressed by the students (59% of them) was asking the communicative target to protect the whale (see table 6). The result might suggest that the students had understood the critical relationship between communicative purpose and communicative messages.

"Phenomenographic research seeks to describe the major features of the different ways a group of people relate to a phenomenon. This analysis necessarily includes some input from the researchers and is feasible only by examining data from a number of individuals, not just one" (Bowden, 1994, p.14). The pre-writing of each student would be further examined one by one in particular to explore whether they could show communicative purpose and sense of communicative target at both the beginning and the end of their writing. It was found that 27% of them were able to do so. However, 35% of them showed them at the beginning only while 14% showed them at the end only. Furthermore, 24% did not show clear communicative purpose and sense of communicative target at both the beginning and the end. The post-writing showed improvement in this aspect. It was found that about 57% of students were able to show communicative purpose and sense of communicative target at both the beginning and the end of their post-writing. It was 30% more than the pre-writing. Furthermore, about 11% of them could not show clear communicative purpose and sense of audience at both the beginning and the end. It was 13% less than the pre-writing (see table 4 & 7). Thus, the extent of enhancement in the students' awareness of communicative purpose relative to communicative target and communicative messages could be discerned.

4.2.2 Details

For the trait scoring of "details" of the NAEP, details and elaboration were examined to see whether they could support the main idea. Similarly, the communicative messages of the students' writing were explored to see whether they were developed around the theme. At the pre-test, most of the students had put a lot of information in their writing, i.e. the pamphlet. It might be owing to the fact that they had just copied the information given by the teacher. Thus, two criteria should be considered. First of all, they had shown the communicative purpose either at the beginning or the end of their writing. Secondly, the messages embedded in their writing could reinforce their communicative purpose. The finding suggested that about 51% of the students had given adequate details supporting the main idea in their pre-writing. However, the messages conveyed by the students seemed to have no relation to the communicative target that they had chosen. The analysis of the students' post-writing suggested that they became more aware of the critical features of

communicative purpose and communicative messages. About 73% of the students had shown the communicative purpose either at the beginning or the end in their post-writing. At the same time, they were able to use suitable communicative messages in the body of their writing in order to reinforce their communicative purpose. It was 22% more than their pre-writing (see table 4). The findings suggested that their discernment of the critical features, the content of communicative messages should be relative to the communicative purpose and communicative target, has been enhanced.

However, the communicative messages conveyed by the students still had no relation to the communicative target that they had chosen. The students seemed to be unable to discern the critical relationship between the communicative target and communicative messages. With reference to video-taping of the lessons, the discourse among the teacher and students was analyzed. It was found that the students' focal awareness was directed to the relationship between communicative purpose and communicative messages rather than among them and communicative target. Besides, their focal awareness of the critical features was sometimes distracted during the learning process. Thus, the critical feature of communicative target was not given adequate emphasis when the students were doing the learning tasks. In short, the reason might be that the students' focal awareness of the intended object of learning was distracted during the intervention. It might be one of the reasons that the students neglected the critical feature of communicative target in their post writing. The following scripts showed the examples that the teacher distracted the students' focal awareness of the intended object of learning.

Script (1)

[Disc 1/00:48-01:40/Introduction of learning objectives]

T: Can anyone explain to me what the "communicative writing" is?

S1: It can express the meaning of writing to the reader.

T: That is the meaning. Any other classmates?

S1: The writer can have more understanding of the meaning of his/her own writing.

T: Thanks! The most important thing is that you can convey your messages through your writing.

At the beginning of the lesson, the teachers asked the students to explain the meaning of "communicative writing". The student (S1) responded, "It can express the meaning of writing to the reader." She mentioned the critical features of "messages" and "reader". However, when the teacher tried to ask another student, the student (S1) revised her definition that "communicative writing" allowed the writer to further understand the meaning of his/her own writing. Her focal awareness was changed from "reader" to "writer". Finally, the teacher concluded, "The most important thing is that you can convey your messages through your writing". It seemed that the students' attention was directed to the critical feature of communicative messages whereas the communicative target (reader) and the communicative purpose might be overlooked. As Tsui (2003) said, discourse was a process in which meanings were negotiated and common grounds were established. The discourse between the teacher and the student (S1) seemed to establish a common ground that "communicative writing" was mainly concerned with the messages only. This became the shared meaning among the students and her. It might affect what and how the students learned in the following parts of the lessons.

Script (2)

[Disc 1/02:30-02:52/Introduction of Task 1]

T: Pay attention to the following point. When your classmate asks for a change of coins, you should pay attention to the content he/she say as well as his/her facial expression and the intonation."

(Students were going to complete the task)

[Disc 1/14:20-19:22/Conclusion of Task 1]

T: The purpose of the learning task was to help you to choose suitable content and intonation in match with the communicative target when writing and speaking. Why should we do so? How the learning task helps you in your writing?

(The teacher gave the students one minute for thinking.)

S2: I think we should choose different subject matters when we deal with different purpose and audience.

T: Different matters, i.e. when dealing with different audience, what should we do in choosing subject matters?

S2: Choose suitable vocabularies to describe.

T: "Choose suitable vocabularies to describe". What's the meaning?

S2: Just like molding a character.

T: Molding a character? But I would like to convey the message to the audience.

(S2 could not answer further.)

S3: The same answer to S2's.

T: I want to convey the message to a particular audience. If I can analysis the content I am going to speak to him/her, to which procedure will be helpful?

(The students had no response.)

T: Suppose I'm writing to S4, why should I pay attention to the content and ways of expression?

S4: Because it can give S4 a good impression.

T: Giving a good impression. Any more?

S5: The reader will understand the content.

T: Why will the reader understand the content?

S5: If we write the reasons clearly...like the former example. There might be no need to give reasons to the younger person. If the person is an adult, he/she may want to know the reasons so that they can find out whether we, primary students, use the money in a suitable way.

T: Because of different person...the speaking content...you know the particular audience...you understand him/her...if you choose suitable content, he/she read...he/she can receive your message easier. Just like you spoke to the child. You did not tell him the reason for asking a change of coins. You just spoke to him in gentle way. He would give you a change. When you asked a teacher or a ferocious stranger for a change of coins, they would ask you the reasons. Do you understand? Thus, if you choose different content in match with difference target, other can understand your writing easily. "Communicative writing" means to convey the communicative messages in more effective ways.

Regarding to the above script, the students were asked to pay attention to the content, facial expression and the intonation after understanding the communicative purpose. The emphasis on the content might help them realize the importance of communicative messages. However, the mention of "facial expression and the intonation" might distract the students' awareness of the intended object of learning at the same time. Furthermore, the students might tend to ignore the critical feature of the communicative target when they were doing the learning task. The importance of both content and intonation was restated in the conclusion of the learning objective as the teacher said "the purpose of the learning task was to help them to choose suitable content and intonation in match with the communicative target when writing and speaking." Nevertheless, it could be found that she had already tried to direct the students' focal awareness to communicative target. It might be further exemplified by the response of the student (S2). When she asked the students how the learning task 1 could help them in their writing, the student (S2) thought that they "should choose different subject matters" when they "deal with different purpose and audience." The student (S2) had already extracted the critical features of "different subject matters" as well as "different purpose and audience". However, when the teacher asked the student (S2) what they should do in choosing subject matters in accordance with different audience, she (S2) became hesitated. Then she gave the answer of "choosing suitable vocabularies to describe". The students seemed to be distracted from the object of learning again. Thus, the teacher tried very hard to redirect the students' attention to the object of learning. For example, she used the examples to illustrate that they should choose suitable content for a particular audience so that the latter could receive the communicative messages easily. Nevertheless, she ended the conversation by saying that "communicative writing means to convey the communicative messages in more effective ways". It was very much kept in the ground of the students' awareness again that "communicative writing" was mainly concerned with the communicative messages only.

Besides the distraction from the intended object of learning during the intervention, other reasons might be suggested for the students being unable to discern the critical relationship between the communicative target and communicative messages as follows:

With the influence of past learning experience of writing exposition, the students might think that their writing should include a brief introduction as well as detailed descriptions of appearance, biological structure and habitual behaviors of whale.

Owing to insufficient daily experience, the students might lack the knowledge of the background information of their communicative targets such as a teacher who taught the subject of history, a biologist and a green sweater worker. They might not have any ideas of what communicative messages were suitable for these communicative targets. This might be proved by the fact that about 69% of them chose a Primary 2 student as their communicative target in both pretest and posttest writing.

The provision of a large piece of information for the students to choose for their writing might not help them. Some of them might not have enough time to read all information. Some of them might just copy it directly without further thinking. Adverse effects might happen.

The writing of a pamphlet in the pretest and posttest might not induce a strong sense of communicative target to the subjects. Writing a letter without too much information provided might be more effective in urging their needs to consider and choose appropriate communicative messages in match with the communicative target.

4.2.3 Organization

With regards to the trait scoring of “organization” of the NAEP, the communicative messages in the students’ writing should be noticeably organized with clearly marked beginning and ending in accordance to the communicative purpose. When analyzing their writing, the priority would be that they had shown their awareness of the “audience and purpose” at both the beginning and the ending of their writing as well as given “evidence of ability to engage audience”. Afterwards, the communicative messages in the body of their writing should be constructed in a logical sequence. At the pretest, about 11% of the students could achieve the desired level of “organization”. Most of them were unable to show clearly marked beginning and ending in their writing. Some of them repeated the same category of content in a discrete order. Some had “a holistic introduction of whale” in the middle of their writing. At the posttest, about 27% of them clearly organized the communicative messages with noticeably marked beginning and ending in match with the communicative purpose. It was 16% more than the pre-writing (see table 4). It seemed that they had more focus of their writing. In the pretest writing, comparatively various kinds of communicative messages offered by different students. However, in the posttest, more students tended to stated “whale is a mammal” at the beginning of their writing and ended their passages with the communicative message of protecting the whale. It seemed that they would like to have a broad introduction of the main role, the whale, at the beginning. Then they provided considerable information such as biological structure and habitual characters of the whale in order to portray its unique and valuable features. Thus, it was reasonable that they asked the readers to protect the whale at the end of their writing. The students tended to give a number of information about the whale only in the pretest while they had clearer purpose of writing in the posttest. The theme of their posttest writing seemed to be “the whale is precious and so we have to protect them”. The communicative messages were organized in consistency of the theme. In other words, they have discerned the critical features of communicate messages relative to communicative purpose and communicative target.

Regarding to the structure of content, the pattern of categories displayed in the students’ pre-writing could not be observed as the communicative messages were conveyed in various orders. It seemed that the students tended to give a number of information about the whale only. However, the pattern of categories displayed in the students’ post-writing showed their capability of Chinese communicative writing by discerning critical features of the communicative purpose, communicative targets and communicative messages. Regarding to the structure of content, four noteworthy patterns could be found in the students’ posttest writing as below:

Pattern 1: Holistic introduction of whale (I) →

Appearance & biological structure of whale (II) →

Habitual behavior of whale (III) →

Whale’s subsistence (V)

Pattern 2: Appearance & biological structure of whale (II) →

Habitual behavior of whale (III) →

Whale’s subsistence (V)

Pattern 3: Whale’s subsistence (V) →

Holistic introduction of whale (I) or/and Appearance & biological structure of whale (II) or/and Habitual behavior of whale (III) →

Whale’s subsistence (V)

Pattern 4: Writer’s self-introduction (VI) →

Holistic introduction of whale (I) or/and Appearance & biological structure of whale (II)

→ Whale’s subsistence (V)

Compared to the structures displayed in the pretest writing, the patterns of categories being constructed in the students’ posttest writing seemed to have clearer purpose. In their posttest writing, increased numbers of students tended to construct their passage with the pattern of “other categories” introducing the information of the whale plus Category V (“Whale’s subsistence). No matter what pattern they used, most of them choose Category V for the ending of their writing. It seemed that they wanted to arouse the communicative target’ concern of the whale’s right of subsistence. It seemed that the development of structure in the students’ posttest writing was more logical with a clear communicative purpose. Among the above patterns, Pattern 1 (about 24%) was the most frequently displayed in the students’ posttest writing. The result might further conclude that the students had discerned the relation of two critical features, i.e.

“communicative purpose” and “communicative messages” of writing. In other words, their capability of Chinese communicative writing had enhanced.

5. Discussion and suggestions

This empirical study demonstrated a valuable experience of applying the variation theory to teach Chinese communicative writing. The introduction of the patterns of variation and invariance in the object of learning did influence how the students understand it. Qualitative change could be observed after the intervention. Though being within such a short period (a double lesson) of intervention, the students showed their awareness of the critical features of the object of learning. When noticing communicative purpose, communicative target and communicative messages simultaneously, the students experienced the relation between them in a new way and acted accordingly. As Runesson (2006) said, “taking the object of learning into consideration is important from the point of view of pedagogy and for enhancing student learning” (p.406). The result of this study shed a new light on reducing the problem of students’ writing in monotonous ways and lack of focus in the future.

Exploring the lived experience of students in this study opened up questions about the pedagogy of writing and about the desirable outcomes of such teaching from the perspective of students. It reiterated the importance of regarding students as a “true writer”. Teachers should not be the only audience of their writing. Various learning context and tasks with diverse purposes or audiences should be provided in students’ writing training so that their communicative awareness can be fostered. Chinese communicative writing should be explicitly taught to students. As there are a number of critical components of Chinese communicative writing, many dimensions of variation can be opened for students to experience and understand. The question is which components of Chinese communicative writing should be opened as the dimensions of the object of learning in accordance with students’ age or their writing development. To solve this problem, variation theory can be applied in order to investigate the significance of variation for possibilities of learning through ‘learning study’, as suggested by Runesson (2006). A group of teacher can work together to solve a well known problem of a teaching topic by means of an action research. Students will be tested after each lesson in order to find out their achieved level of the topic. With reference to these data, teachers can discuss and plan their lessons with a focus of expected learning outcome. Moreover, each lesson will be video recorded for the teachers to study and discuss immediately. Together with the test results, they can plan or revise another lesson in a more effective way (Lo, Marton, Pang & Pong, 2004; Runesson, 2006). As Holmqvist, Gustavsson and Wernberg (2007) stated, it was difficult for teachers to see how their teaching affected students’ future learning though their interests in learning was obvious. The “learning study” might be helpful.

The study demonstrated the mismatch between the intended outcome (intended object of learning) and observed outcome (lived object of learning). Students were expected to convey different communicative messages in accordance to various communicative targets. However, their post-writing showed that they were not aware of this relation. The previous analysis of the lesson enactment suggested the reasons. The teacher unconsciously distracted the students’ focal awareness of the intended object of learning or placed too much emphasis on communicative messages during the lesson. The result restated the impact of teacher’s questioning and feedback on students’ learning. As Godinho and Wilson (2006) pointed out, “questions should always be purpose driven” (p.4). Whatever types the questions are, they should always be used for directed students’ focal awareness of the intended object of learning. According to the variation theory, to learn means to experience. Questions play a critical role in students’ learning as they help them make sense of the world (Godinho & Wilson, 2006). However, questions cannot function without constructive feedback. Effective questioning followed by constructive feedback can facilitate and enhance students’ learning. Questioning and feedback are popular technique in each classroom teaching everyday but their effective use is still under questions. In short, teachers need to pay more concerns to equip themselves with these skills.

Finally, this is a preliminary study and the program needs to be tailored for future use. As this study is school-based with a limited number of research subjects, the results will be valid for the target group only. Moreover, students’ performance might be different from the way they usually act if they are treated as “research subjects” (Bogdan & Biklen, 1998). Further research is needed using other research methods to clarify students’ ideas.

6. Conclusion

This study attempted to apply the variation theory to teach Chinese communicative writing. It aimed at exhibiting the students’ capability of experiencing the phenomena in different ways and so showed qualitative difference in their approach to writing. 38 students in a Primary 5 class took part in the study. A double-lesson was used to implement the intervention. Three learning tasks were designed and systematically structured to help to facilitate students’ discernment of the critical features of Chinese communicative writing, i.e., the communicative purpose, communicative targets and communicative messages. A pattern of variation and invariance that serves the function of “separation” or “fusion” was developed to show students that different communicative approach and messages with clear and definite purpose will be used for different communicative targets; first to have students discuss and define the communicative purpose of tasks, and express the different lines of thinking in accordance with the difference in the communicative targets of

communication; then to discuss the background information of different communicative targets and the importance of selecting communicative messages relevant for them. A comparison between students' writings before and after the study revealed qualitative difference in their writings. In the post-study writing, students showed clearer communicative purpose. The pattern of variation and invariance that functioned as "separation" and "fusion" was thus shown to be highly invaluable to the teaching of Chinese communicative writing. In conclusion, this study supports theoretical research on employing the variation theory to teach Chinese communicative writing.

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Table 1. Coding of messages and sorted categories in the students' writing

Code	Categories	Code	Messages
I	Holistic introduction of whale	A	Whale is a mammal
		B	Types of whale/the biggest & smallest whale
		C	Whale is an ancient animal
II	Appearance & biological structure of whale	D	Appearance & size of whale
		E	Description of whale's brain
		F	Description of whale's eyes
		G	Description of whale's communication organs
		H	Description of whale's teeth
		I	Description of whale's stomachs
III	Habitual behavior of whale	J	Whale's collective nature in daily living
		K	Food of whale
		L	Whale's periodical long journey between the south latitude and the north latitude
		M	Whale's diving
		N	Whale's spouting "water" (air)
		O	Spread of whale
IV	Whale's character	P	Whale's character
V	Whale's subsistence	Q	Whale's "suicide"
		R	Whale's being hunt/death/right of existence
		S	Organization working for protecting whale
		T	Asking the readers to protect the whale
VI	Writer's self-introduction	U	Writer's self-introduction
VII	Inviting customers to come again	V	Inviting customers to come again
VIII	Comments on whale	W	Whale being lovely/being worth studying/having a lot of characteristics

Table 2. Percentage of the students who had chosen to write for the same or a different message for the same or a different target in the post-writing

	Total students (n = 37; 100%)	The same writing target (n=24; 65%)	Different writing target (n=13; 35%)
Same message at the beginning	About 46%	About 42%	About 54%
Different message at the beginning	About 54%	About 58%	About 46%
Total:	100%	100%	100%
Same message at the last	About 35%	About 33%	About 38%
Different message at the last	About 65%	About 67%	About 62%
Total:	100%	100%	100%

Table 3. Percentage of the students who had chosen to write for the same or a different category for the same or a different target in the post-writing

	Total students (n = 37; 100%)	The same writing target (n=24; 65%)	Different writing target (n=13; 35%)
Same category at the beginning	About 62%	About 58%	About 69%
Different category at the beginning	About 38%	About 42%	About 31%
Total:	100%	100%	100%
Same category at the last	About 51%	About 50%	About 54%
Different category at the last	About 49%	About 50%	About 46%
Total:	100%	100%	100%

Table 4. Percentages of the students who had shown improvement in their Post-writing

Traits	Achievement	Pre-writing (n=37)	Post-writing (n=37)	Gains
Audience and purpose	Showing communicative purpose and sense of communicative target at both beginning and ending	About 27%	About 57%	39%
Details	Showing communicative purpose either at beginning or ending with the support of embedded messages in the body	About 51%	About 73%	22%
Organization	Showing noticeable organization of communicative messages with clearly marked beginning and ending relative to communicative purpose	About 11%	About 27%	16%

Table 5. Messages and categories conveyed at the beginning of the students' pre-writing and post-writing

Code	Categories	Code	Messages	Pretest (n = 38)	Posttest (n = 37)
I	Holistic introduction of whale	A	Whale is a mammal	About 26%	About 49%
		B	Types of whale/the biggest & smallest whale	About 8%	About 8%
		C	Whale is an ancient animal	About 3%	0%
II	Appearance & biological structure of whale	D	Appearance & size of whale	0%	About 3%
		E	Description of whale's brain	About 13%	About 13%
		F	Description of whale's eyes	About 3%	0%
V	Whale's subsistence	R	Whale's being hunt/death/right of existence	About 18%	About 16%
		S	Organization working for protecting whale	About 3%	0%
		T	Asking the readers to protect the whale	About 3%	0%
VI	Writer's self-introduction	U	Writer's self-introduction	About 23%	About 11%

Table 6. Messages and categories conveyed at the end of the students' pre-writing and post-writing

Code	Categories	Code	Messages	Pretest (n = 38)	Posttest (n = 37)
II	Appearance & biological structure of whale	F	Description of whale's eyes	About 8%	0%
		I	Description of whale's stomachs	About 3%	About 3%
III	Habitual behavior of whale	K	Food of whale	About 13%	About 3%
		L	Whale's periodical long journey between the south latitude and the north latitude	About 13%	About 5%
		N	Whale's spouting "water" (air)	About 18%	About 8%
		O	Spread of whale	About 5%	0%
V	Whale's subsistence	Q	Whale's "suicide"	About 5%	About 3%
		R	Whale's being hunt/death/right of existence	About 3%	About 5%
		T	Asking the readers to protect the whale	About 24%	About 59%
VII	Inviting customers to come again	V	Inviting customers to come again	About 3%	About 3%
VIII	Comments on whale	W	Whale being lovely/being worth studying/having a lot of characteristics	About 5%	About 11%

Table 7. Percentages of the students who had shown communicative purpose and sense of audience in their writing

	Total students (n = 37)	
	Pre-writing	Post-writing
Showing communicative purpose and sense of audience at both the beginning and the end	About 27%	About 57%
Showing communicative purpose and sense of audience at the beginning only	About 35%	About 11%
Showing communicative purpose and sense of audience at the end only	About 14%	About 21%
Not showing clear communicative purpose and sense of audience at both the beginning and the end	About 24%	About 11%
Total	100%	100%



Understanding the Risk of Futures

Exchange: Evidence from SHFE

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Abstract

Based on the descriptive analysis of China futures trading mechanism and the structure of China futures exchange, this paper defines the risk of futures exchange as uncertainties in the futures market that cause the futures exchange to suffer loss due to the default of its members. Several risk factors such as price fluctuations, market monopoly, capital sufficiency and market manipulation can be identified when the development of China futures market is more closely observed. By setting up a risk-warning model for China futures exchange through multivariate analysis using data from SHFE, an empirical study indicates that as the most important risk factor the price fluctuation has a great influence on China futures exchange. The effectiveness of the risk-warning model is supported by the analysis results from the latest data.

Keywords: China futures exchange, Risk, Price fluctuation

1. Definition and Identification of the Risk of China Futures Exchange

1.1 Overview of China futures market

The history of China futures market began at the very beginning of 1990s, when Zhengzhou wholesale grain market, the first merchandise futures market, was approved on October 12th, 1990 by the State Council to introduce futures trading mechanism on the basis of spot market. After that China futures market has been on its way towards a standard as well as efficient one despite the trials and errors during the following decade. At present, China futures market has preliminarily established a relatively standard exchange-centered market system (Note 1).

In view of organization structure, China futures market carries out a three- leveled-management system (Note 2), i.e. government-association-exchange management system. The Department of Futures Supervision of China Securities Regulatory Commission (CSRC) (Note 3) is responsible for the overall government supervision of China futures market. Association indicates the China Futures Association (Note 4) (CFA), a non-profit self-regulatory organization founded on December 29th, 2000. Association management supplements government management and exchange management greatly for being more flexible than government management, and more powerful than exchange management.

Futures exchange is regarded as the elementary administrator (Note 5) and the specific trade organizer. At present, China has three futures exchanges, i.e. Shanghai Futures Exchange (SHFE), Zhengzhou Commodity Exchange (ZCE) and Dalian Commodity Exchange (DCE), all of which operate in the framework of membership system. The three standard contracts listed at SHFE are copper, aluminum and natural rubber contracts; the two listed at DCE are soybean contract and soybean meal contracts and wheat and mung bean contracts are being traded at ZCE (Note 6).

China futures exchange (Note 7) provides relevant service like the electronic trading system (Note 8), to facilitate futures trade instead of involved themselves in the trade, as well as the futures price formation. The margin account is settled up on a daily basis by the clearing department of the exchange rather than a clearinghouse. Only members (Note 9) of the futures exchanges are admitted to trade on the trading of futures exchanges and get their accounts settled.

1.2 Definition and Risk Identification

According to the present futures trading mechanism of China, the role futures exchange and its clearing department play is to ensure the fulfillment of its members' obligations, thus with all the responsibilities specified in the contract and performed during trading process, the futures exchange could be under sound operation. Therefore, the risk of China

futures exchange is defined as a kind of uncertainty that causes China futures exchange to suffer loss due to the default of its members.

Futures exchange has to utilize risk reserve to cover the loss caused by the investors whose trading partner defaults in performing the entailed obligation due to various uncertainties on the futures market, including price movements, market expectations (Note 10) and other factors such as macro economic conditions and government policy changes that are reflected in form of price fluctuation, market monopoly level, capital sufficiency and market liquidity.

As another important factor that deserves special attention here is the specialty of China futures market to be mentioned. With a history of only little more than 10 years, China futures market is still under development (Note 11) and inefficient in realizing the important economic functions (Note 12) as price discovery (Note 13) and risk transfer. According to the research performed by CHU (Note 14) (2001), the major problems of China futures market lies in the following aspects:

Firstly, the unreasonable risk-return distribution mechanism leads to a tendency of excessive speculation on China futures market. Secondly, the immature and underdeveloped information disclosure mechanism not only prevents the market from functioning efficiently, but also causes market manipulation by those who take advantage of inside information.

The third point lies in the incomplete market structure and the regulation system of China futures market. Among various market participants, hedgers, arbitragers and speculators are out of proportion; besides, futures exchange has too few listed contracts and the types of underlying assets are also far from diversified. This phenomenon has something to do with the inefficient new-contracts approving procedures, which should make adjustments in the trading contracts in time by eliminating the out-of-time contracts and introducing new ones in accordance with market demand.

China futures market is still in the initial stage of development (Note 15) with many defects in trade mechanism, contract design, market liquidity, trading structure, and market manipulation, which have led to incidents (Note 16) that caused great loss during the ten-year development. Taking the rice contract incident occurred in 1994 Shanghai as an example, with great difference from the market prospects, several influential members manipulated the market by forming a huge gap between the opposite positions. Their behavior caused the week party unable to perform its obligation and placing the exchange in a risk state.

Generally, this unpleasant experience illustrates problems from different aspects of China futures market, including both trading issues like market manipulation, market liquidity, price fluctuation, trading structure, and regulation issues such as government intervention, unexpected changes in policies and regulations, and information disclosure process. According to JI (1997)'s research, the risk of China futures market mainly stemmed from market manipulation and improper regulation made by the exchange.

Considering the important position of futures market in the economy, and the high level of leverage of futures trade, failures in futures market may cause subsequent chain effect and therefore threaten the stability of the entire economic operation. Since China futures exchange operates as the core of China futures market, the study of its risk is of vital importance, which is relevant to the whole welfare of economic development. This essay intends to establish a risk-warning model for China futures exchange via multivariate analysis. The following sections of this essay focus on an empirical study from SHFE (Note 17).

2. Ideologies and Methodology of the Empirical Study

In the form of twelve risk indexes from a risk surveillance system (Note 18) designed by CSRC, the data collected from SHFE represents three different aspects of the futures market, namely capital, price and positions. We first analyzed the indexes through factor analysis to identify and interpret the key risk factors, and then classified the data into two states, one for normal situation and the other for risk-warning situation, using the effective factors. Next, a risk-warning function could be established to discriminate the different states of the futures exchange with the help of discriminant analysis. The three specific analysis techniques involved in the study are listed as follows (Note 19).

2.1 Factor analysis technique

The information provided by the indexes describes different market situation, but only such information that implies abnormal market fluctuations can give us signals of potential risks. Therefore, indexes with larger variances contain more effective information about different market states. Factor analysis concentrates on abstracting potential risk factors with the largest variances from the original indexes and forming linear functions for each risk factor using the original indexes, which will be helpful to interpret the risk factors into economic phenomenon. Factor analysis could greatly enhance the efficiency of analysis at lowest cost of information loss.

2.2 Cluster analysis technique

To identify the risk-warning state from the safety state of the exchange, it is necessary to specify different market states first. Cluster analysis aims at classifying samples properly according to their similarity. We applied cluster analysis to

the identified factors guided by the principle of minimizing within-group differences while maximizing between-group differences, thus we can put similar samples together and find the characteristics of both normal and abnormal groups.

2.3 Discriminant analysis technique (Note 20)

Discriminant analysis shows which of the existing groups a sample belongs to according to certain standard. We perform stepwise (Note 21) discriminant analysis to build Fisher linear discriminating equations for both the safety and risk-warning states using the original indexes, which condenses indexes into a single discriminant score that represents the sample characteristics. To evaluate a new sample, we only need to compute its discriminant scores using the original indexes and then simply assign it to the group with higher score because of their higher similarity.

3. Results and Interpretation to the Empirical Study (Note 22)

3.1 Data Description

The analyzed indexes derive from the index surveillance system (Note 23) specially designed by CSRC for China futures exchanges, concerning the capital, price and position aspects of the futures market respectively. The nine copper contracts listed at SHFE from the Dec 18th, 2001 to Sep 16th, 2002 are chosen as our sample. The standard copper contract traded at SHFE lasts for six months while new contracts are released and old contracts delivered monthly. As one of the most mature and stable contracts on China futures market at present, the copper contract of SHFE is well acknowledged considering its price-discover function (Note 24). According to LUAN's (2002) report (Note 25), during the period from the end of 2001 to September 2002, the operation environment of SHFE remained stable with no great changes in regulation and law, and macroeconomic environment. Therefore, the results from data of this period can be regarded as the normal operation state of SHFE without unusual impacts.

3.2 Data Process and Results Interpretation

Factor analysis was conducted first to identify influential risk factors of China futures exchange. To maximize the factors' variances and ensure their independence, orthogonal rotation was employed via varimax procedure. According to the results (Note 26), five factors account for 83.8% of the information. The first two factors represent the effect of short-term and long-term price fluctuation respectively, the third factor is a combination of market monopoly and liquidity level, the fourth about the market position structure and the last about market trading pattern. The five factors clarify five different aspects that have notable influence on the risk of futures exchange, and the results are acceptable both statistically and economically.

To distinguish the risk warning state from the safety state, cluster analysis was performed to divide the operation situation into two states, the safety one and the risk-warning one, using the identified risk factors. The result (Note 27) indicates that six of the samples can be put into one bracket as the others belong to the other. Comparing the two groups, we find that the first group with only six samples representing an unstable market situation with high monopoly level, huge gaps between the long and short positions, greater members loss, poorer liquidity and larger price fluctuation. Therefore, we regard the first group as a risk-warning state of the futures exchange and the other a normal state.

Two linear Fisher discriminant equations were built up for each state through stepwise discriminant analysis to realize risk warning as well as effective indexes selection.

Fisher discriminant equation for risk warning state:

$$\text{Score} = 1134.956 * \text{price fluctuation index} - 25.378$$

Fisher discriminant equation for safety state:

$$\text{Score} = 288.455 * \text{price fluctuation index} - 2.288.$$

Only the price fluctuation index was left in the discriminant equations, showing that price movement is the most important factor of the risk of China futures exchange. Positive coefficient shows that the greater the price fluctuates, the higher possibility of a risk incidence happens.

3.3 Empirical Test to the Results

Another set of data was tested to verify the effectiveness of the risk-warning model and the applicability of our analysis method. The new data consists also of the risk indexes of copper contract from SHFE but during another period from Nov 1st 2002 to Oct 30th 2003. We computed the two discriminant scores using index values and the collected risk warning points which agree with the real trading situation and figures from the history trade records (Note 28).

These warning points can be grouped into two remarkable signals: one signal came between Oct 13th and 24th 2003, and the other from May 13th to 16th 2003. During the two periods, the copper future market was greatly impacted, including funds transaction and other abnormal market behaviors, which affected nearly all copper contracts traded at the market. Therefore, the risk-warning model can give risk-warning signals and be suited to the real trading situation well. Our research method is in this way regarded as scientific and effective.

4. Conclusions and Prospects

In this essay we define the risk of China futures exchange as uncertainty in the futures market that causes the futures exchange to suffer loss due to the default of its members. From different aspects of China futures market this essay analyzes the risk including the underdeveloped transaction mechanism, market liquidity and monopoly, contract diversity and substandard regulation.

In view of the specialty of China futures market, the paper then made an empirical study to the risk surveillance indexes from SHFE. The five identified influential factors of the risk of the futures exchange are both short-term and long-term price fluctuations, market liquidity and monopoly, market position structure and the trading pattern. Cluster analysis separated the two states that were used in the following discriminant analysis. The unfavorable market state can thus be defined as with high level of monopoly, poor liquidity, greater position gaps and larger price movement. The stepwise discriminant analysis clarifies that price fluctuation is the most important factor affecting the risk of the futures exchange. The greater the price fluctuates, the more risk the exchange has.

In addition, the effectiveness of the risk-warning model obtains much support from results of an empirical test using the latest data from SHFE. The model successfully gives risk-warning signals when abnormal large movements existed in the market threatening the safety of the futures exchange.

Last but not least, effective information cannot be fully reflected through the price movement, and many subtle and indirect factors like policy changes and investor behaviors have difficulties in being quantified. For this reason fuzzy mathematics tools (Note 29) for analysis is worth being introduced and a framework for further research focusing on the risk of the futures exchange will be at the same time set up.

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Notes

- Note 1. See the authoritative website of China Securities Regulatory Commission ([http:// www.csrc.gov.cn](http://www.csrc.gov.cn))
- Note 2. See: Special topics for China futures market, Dept. of Futures Supervision of China Securities Regulatory Commission, China financial & Economic press, 2000.11
- Note 3. See the authoritative website of China Securities Regulatory Commission (<http:// www.csrc.gov.cn>)
- Note 4. China futures association devotes itself to the security of the investors' benefit, the coordination of institutions in the futures industry and the cooperation between the futures industry and the government. For detailed information about CFA, visit its authoritative website, <http://www.cfachina.org>
- Note 5. See YANG Yuchuan, Innovations and risk management to modern futures and options, Economics and management Press, 2002.1; Daniel R Siegel and Diane F Siegel, Futures markets, 1989
- Note 6. See the authoritative websites of SHFE (www.shfe.com.cn), DCE (www.dce.com.cn), and CZCE (www.czce.com.cn) respectively.
- Note 7. See: China Securities Regulatory Commission, Regulations of futures exchange management, term 8

Note 8. In China, the two parties participate in the trade according to price-prior and time-prior principles using the electronic trading system.

Note 9. See: China Securities Regulatory Commission, Rules (provisional) of futures exchange management, term 8, term14, term39 and40. "The only trading members in China futures exchanges consist of both institutional members like futures brokerage companies and non-institutional members. According to present regulation, the brokerage companies are restricted to execute orders on behalf of their clients rather than trade for their own capital accounts or other futures brokerage companies, while the other members, on the contrary, can only trade for their own account."

Note 10. See: Innovations and risk management to modern futures and options, Yang Yuchuan, Economics and management Press, 2002.1

Note 11. See: Special topics for China futures market, Dept. of Futures Supervision of China Securities Regulatory Commission, China financial &Economic press, 2000.11

Note 12. See Daniel R Siegel and Diane F Siegel, Futures markets, 1989,p28 for a detailed explanation.

Note 13. See: HUA Renhai and ZHONG Weijun, Empirical test to the price efficiency of Shanghai futures exchange, Journal of Quantitative and technical economics, 2003.1

Note 14. See: A Study to the Risk of China Futures Market, CHU Juehai, China financial and Economic press, 2001

Note 15. See: Risk Control of Futures Market, JI Guangpo, China financial &Economic press, 1997.6

Note 16. See: A Study to the Risk of China Futures Market (CHU Juehai,2001) for detail description. Such incidences include the polished rice contract in 1994 listed at the former Shanghai grain and oil Commodity Exchange, the Palm oil contract (M506) in 1995,coffee contract (F703) in 1995,and the natural rubber contract (R708) in 1997 listed at the former Hainan China Commodity Exchange and so on.

Note 17. Data is collected from SHFE, the sponsor and partner of our research.

Note 18. See Special topics for China futures market, Dept. of Futures Supervision of China Securities Regulatory Commission, China financial &Economic press, 2000.11

Note 19. See 'Applied Statistical Methods', by MEI Changlin and ZHOU Jialiang(Xi'an Communication University Press), for specific explanation and detailed theory.

Note 20. Although linear Discriminant Analysis requires normal distributed data, it does enjoy the advantage of being easily translated into the real economic phenomenon. Therefore we did not give up it due to the vital role economic interpretation play in the statistical analysis like this. According to the finding of LU (2000) that it is likely that the assumption of normal data be rejected when the data is tested. When data is in large amount, it is not necessary to emphasize too much on normal distribution. See page108, 'SPSS for Windows' (2nd edition), by LU Wendai, Electronic industry press, and 2000. This paper does not put strict requirement of normal distribution on the data collected, but the acceptance of analysis result will depend on their economic meanings and their accuracy in reflecting the real world.

Note 21. Since the indexes are of different importance, stepwise discriminant analysis is employed to establish discriminant equations with only effective indexes.

Note 22. Analysis was conducted using the software SPSS (short for Statistical Package for the Social Sciences)

Note 23. See: Special topics for China futures market, Dept. of Futures Supervision of China Securities Regulatory Commission, China financial &Economic press, 2000.11

Note 24. The copper price from SHFE has become an authoritative price for China domestic copper market and one of the three reference prices in the international copper markets. See the authoritative website of SHFE (<http://www.shfe.com.cn>)

Note 25. See 'A review of the 2002 copper market as well as the prospect of 2003', LUAN Ziqiang, Research Dept of Jinrui Futures Brokerage Firm, December 2002

Note 26. See 'Factor Analysis to the factors of the Risk of China's Futures Exchange', by TIAN Shu, WANG Xuyi and CHEN Shaojun, 2003, a research report for SHFE in the cooperative program with SHFE.

Note 27. See' Discriminant Analysis Model to the Risk of China's Futures Exchange', by WANG Xuyi, TIAN Shu and CHEN Shaojun, 2003, a research report for SHFE in the cooperative program with SHFE

Note 28. All trade records are from the history trade record of SHFE.

Note 29. See: WANG Xuyi, A Fuzzy Discriminate Credit-Rating Model with Sensibility Analysis and Applications in Commercial Banks.



Media Salience and the Process of Framing: Coverage of the Professor Prostitution

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Abstract

This study examines how the media can build a news event's salience by emphasizing different aspect of the event during its life span. A content analysis examines the coverage of the prostitution of one professor from FUDAN University in the Beijing News and the BUNDPic.documents, the use of multiple frames on space dimension. It visualizes framing as a process over time, and identifies certain frame-changing patterns in the coverage of this highly salience news event, which has inspected that the media how to use of the way to emphasize the difference of attribute. This analysis could resolve three problems as follow: 1.The media how to adopt attribute agenda setting to emphasize the difference of attribute property of one event to construct news framework. 2. How is the subversion and regression about the influencing of agenda setting. 3. What is the relationship between the media affection and the specific details of media. Another one is the relationship between the narrative plot of media and the influence they have give to audiences.

Keywords: Attribute, Salience, Framework

The agenda-setting researcher pays close attention to the salience of events and regards it as focal point. One of the underlying assumptions about the agenda-setting theory is that once an event had appeared in agenda setting, the increasing percentage of this news event would also increase the importance and salience of it. For a time, all of the media agenda-setting research have concentrated in the mutually affection between the percentage of the report about a news event and its salient level. However, they have ignored the dynamical process, which have had been constructed by media. This kind of dynamical process has already taken important affection to help the agenda setting to salience the importance of event. News media stress the different aspect of the details in the events intentionally or unintentionally to construct the salience. This is the so-called attribute agenda setting theory.

And the research of attribute agenda-setting article get through the discourse analysis about the especial report of the prostitution event of one professor from FUDAN university, to inspect the importance of agenda-setting and investigate the particularity of its attribute, that how to raise the salience of itself by means of media agenda construction.

A news event narrowly circumscribed in time, the professor prostitution, was selected as the object for study in this initial exploration of frame changing rather than a broad public issue to facilitate a comprehensive but manageable examination of its life span. This is not the first time that agenda setting researchers have turned their attention to a news event rather than public issues, among many others, have noted that agenda-setting theory is relevant to any set of objects -or even a single object -competing for attention.

1. Literature Review

Attribute Agenda Setting .Since the Chapel Hill study by McCombs and Shaw, more than 350 empirical studies have had been conducted to examine the agenda-setting influence of the news media. In recent years, the theory has expanded to include the second level of agenda setting, where the unit of analysis shifts from an object, for example, an issue to aspects or attributes of the object. Second -level agenda-setting research examines how media organizations select and present certain characteristics and properties of an object and how that selection and presentation influence the public's perception of an object and its attributes. While the first level focuses on the transfer of object salience from the media agenda to the public agenda, the second level deals with attribute salience among the public. By examining shifting patterns of attribute salience in the media over time, this study analyzes how a specific news event gained salience on the media agenda through its cumulative coverage. While the selection of attributes by the news media is identified as a powerful agenda-setting role: the media agenda with details how to influence the public agenda , the in-depth study of the second-level agenda setting shows that: the view of media could not decide the audiences how to think but would be successful in deciding what to think (Cohen,1963) ,at least is incomplete, so that media could not

only what to think ,but also what to think about the event which stressed the aspect of attributes.

2. Research Approach: Content Analysis

According to the substance of report about the affair of FUDAN professor prostitute, which published in newspapers and magazines, we could analyze and have tried to determine to make sure that media agenda has salient report what characters and details of event. Certain kind of characteristics have been selected or been abandoned by media. Journalists would incline to hand the utterance rights to the right person. Where the media agenda intend to direct the audience thoughts mode flow? Whether or not there is a positive correlation between the cumulative coverage and the percentage of audience attention, what kind of influence has had been made by characteristic of the news on the audience's thoughts and remarks?

The theme of news discourse borrow the theory of semantic which means the outline, the main idea and main point or the most important information of news article, that is a kind of research on discourse in global and macroscopic level. Article theme is base on the worldwide common sense knowledge and individual belief and interest that pass though the macro processes which means regulation and strategy, and strategically derives a macro proposition from the sequences of propositions. This kind of macro proposition as a part of framework of article theme, could be expressed by a summary, and subjectively definite the most important information, main idea and main point.

According to the derivation theory about the theme of news discourse, we analyze the first report about the professor prostitution event that published in the Beijing News, November 1, 2004:

Institute of Economics Dean resigned due to whoring

A few days ago, the famous economist, Institute of Economics Dean of FUDAN University, Lu Deming resigned.

In October 28, reporter telephoned the party branch secretary of Institute of Economics, FUDAN University. A woman officer expressed that, Dean Lu Deming have resigned due to prostitution activity. Incumbent acting Dean Yuan Zhigang has assumption of duty about early September. And this officer stated that, she dose not know the inside information about what time Lu had prostituted, what processing opinion the academe had had, and the outcome after Lu had resigned.

In addition, before, Wu Zhaolu, vice-secretary of Propaganda Department of Party Committee, FUDAN University confirmed this in October. During the interview, Discipline Inspection Commission and Institute of Economics of FUDAN University both point out that the whoring activity of Lu Deming is verity

DIC disclosed the truth to the press; Lu Deming had been hunt down at the scene while he was whoring by local police station, Yangpu Direct, Shanghai city. In addition, he had had been detained by operation of law.

The whoring activity of Lu is execrably, which have bad influence upon the image of FUDAN University. Therefore, University seriously punished Lu: He could not be the Institute of Economics Dean; also, he could not be allowed to teaching, but he can continue his researching; and his professor qualification would be written off for three years. After then, Lu resigned the position of Institute of Economics Dean.

While the reporter telephoned the Wu Zhaolu for a interview in October 27th, Wu said, there was not any further punishment in view of Lu had voluntarily resigned and left.

As the first report about the professor whoring affair, this article turn the folk rumor into a social issue rapidly. The article gains a vivid theme and expresses it in the title through a macro propositional type. What worth while to be mentioned is that an important feature of news discourse is article theme always be conveyed and hinted in the title, which gets a characteristic that typify in message—briefing summarize. Deducing the macro proposition from the text, that is according to the abridged message, which would not hinder the audiences from understanding the rest messages in the way of Deletion, Generalization, and Construction. Then the writer would like to set this report as an example to deduce the macro proposition from the text. First, we would conclude every macro proposition from each passage to gain the initial macrostructure (M1).

M1.1. Institute of Economics Dean of FUDAN University resigned.

M1.2. One of the Institute of Economics officers confirmed it.

M1.3. In Propaganda Department, the person in charge confirmed it.

M1.4. Local police station confirmed that Lu Deming has whoring activity, and FUDAN University seriously punished him.

M1.5. Wu Zhaolu said no any further punishment because Lu had voluntarily resigned and left.

Macro abridgement would include details of time, place, event, irrelevant background, and features of other people. According to the analysis of initial macrostructure, spectators might get the point that the message abridgement principle of macro regulation is not to prune the text to the highest-level of macro theme directly; instead, macro theme

expression is obtained from deep-rooted abridgement of macrostructure:

M2.1. The resignation of Institute of Economics Dean of FUDAN University has been confirmed.

M2.2. The whoring activity of Lu Deming is verity.

Nevertheless, it could be abridged further that the highest-level of macrostructure, M3, comes out. The most refined theoretically summary of this report is: M3 Institute of Economics Dean of FUDAN University resigned due to whoring. In this structure level, the information, which has been saved, is relevant news main role, macro event (resign), and relevant detailed issue (whoring). After describing the discourse structure of each level in this article, to inspect that description, there is need to combine the visual angle of language situation and the visual acknowledge procession, reproduction, and social culture. From escort service of woman college student, to whopping price of college enrollment, public opinion is sensitive for those keywords, such as professor, common college student. Sexual implication directly leads to sexual excitation. Press has provide plenty of imaginations and associations, and acutely, the mass easily to be excited by a non-obvious expressional news report rather than the obvious one (Bancroft & Mathews,1971). The spectators imagine and associate those messages, which have been abridged from news report, then to construct a more provocative fact, to instead reading a pre-given ending. The spectator could imagines that the family life of this professor does not harmony, the personal appearance of him, and details when the professor and whore having sex, even though the power struggle behind erotica.

Achieving the theme of news discourse by means of converted usage of macro regulation, Owing to specification of the whole event, abstract information has been detailed express out. In addition, Five W, the news basic elements, merely summarized the abbreviated feature about the news report. Coding categories for space variable (McCombs,2004)are (1) individual level: if the story focuses on individuals ,the interaction among them, or descriptions of their acts, reactions, or background information, editorial pieces telling personal stories also are in this category. (2) Community level: the story focuses on certain single community. (3) Regional level: the story on the state or region. (4) Societal: the story focuses on concerns, event, or the discussions with nation-wide interests. (5) International level: the story focuses on related phenomena or social problems seen in the other countries, or the interaction between multiple countries. For example, another report about FUDAN professor’s whoring affair is on the BUNDPic, November 9. We would like to dwell on semantics detail of the news article, and analyze the details type of each article theme passage to passage.

The whole story about a whoring affair of famous economist Lu Deming, a FUDAN University professor.

- (1) Passage of news lead explains the main body, time, event, attitude, arrangement, and the attitude of person involved.
- (2) The second part is variety of the popular folk rumors about the affair.
- (3) The third part explain definitely arrangement, attitude of client, and the attitude of DIC
- (4) The fourth part explain the background of client
- (5) The fifth part report the view of students about the client
- (6) The last part presents the current condition of client

The detailed analysis of this news report could make out a quantifiable analysis of this news report for its property selection. In denomination of semantic, this kind of divided property arrangement acutely is one sentence a unit. If there has been a semantic gene, it could be dividing into one unit. As the picture follow:

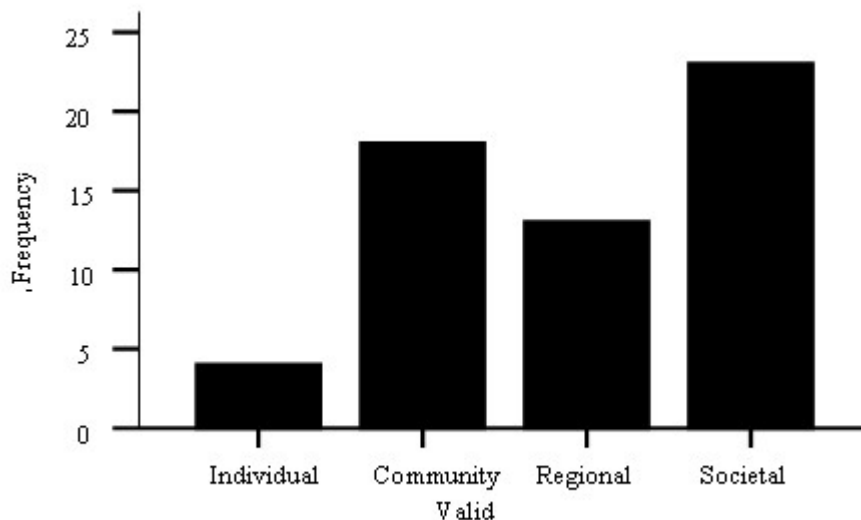


Figure 1. Frame changing on the space dimension

Table 1. Frame changing on the space dimension

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
individual	4	6.9	6.9	6.9
community	18	31.0	31.0	37.9
regional	13	22.4	22.4	60.3
societal	23	39.7	39.7	100.0
Total	58	100.0	100.0	

In quantifiable analyze of the property of this news report, the spectator might acknowledge individual level report about this affair is weak. There are only four sentences about Lu Deming whored in whole text, and all of the four are merely reporting what Lu has confessed and declared that hardly to find out the judicial case report. Critical details of a news report always stressed that: (1) Community level, 30%. Particular community (students of FUDAN University and other professor) have some attitude to the news event (resigned due to whoring). (2) Societal level, 39.7%. Significance of news event is about society and nation (widely dissemination of newspaper and network). (3) Regional level, 22.4%. The attitude of common group (leadership of FUDAN University)

The property salience by reporter is that: the attitude towards the whoring affair of Institute of Economics Dean, which led to his resign among the students and professors of FUDAN University and the huge influence that caused by this affair, however, except for definitely procession. That aspect of fact has been salient in the dissemination text and has been especially dealing with in the report. Through out this way, significance expression, analog of cause and affect, morality evaluate, and countermeasure suggestion, have been reflected. For reporter's special dealing, it could be read: Lu Deming had been punished by both spirit and social moral. For a famous scholar who has great deal of contribution for economical field, publish opinion should better to sympathize and feel sorry for him rather than to take mean advantage of him when he is down. Reporter has successfully leading spectators to be appeased.

3. Discussion and conclusion

In this case, if the "core" frame that made this a news event is the individual level, all the other dimensions then constitute "extended" frames, which the story is base on the background of the professor wore to introduce the happening time, the location, the case itself. Why did reporters convert the core framework to community - societal dimensions in the coverage of the Professor Prostitution? Whether the security cases itself or the selective reporting news affect audience thought. In other words, do the media agenda have influenced the public agenda?

According to the Analysis of that, the coverage of the dean resignation due to whoring clearly highlighted the societal dimension of attributes. Media agenda emphasized the societal level of the event, and led the audience concerns and thoughts toward to the societal dimension in the means of attribute agenda setting which successfully gave rise to the discussion of the event. As follow, there has been sympathy, sorrow, heartache, regret, unfortunate, such opinion of compromise. The core frame geared individual to societal, does not lie in the social influence owing the event self, but is to depend on the social influence intermediary adds the person involved in the event constructed by dignity and position. This kind of media affection, say, the selection and salience for the detailed content, achieve the expected influence on the thoughts trend of audience

The primary purpose of this study is not to describe the specific details of the working coverage, but to apply to the dimensional measurement to examine framing as a process in journalistic practice. After all, the specific details of news story obviously change from day to day and from event to event, but the narrative strategies employed in journalistic storytelling are enduring. Overall, a major contribution of agenda-setting theory is to link media effects with specific content in the media. However, agenda-setting effects also are the result of media emphasis on specific attributes of the objects in the news. Mapping the narrative strategies and their impact on the public is an important goal for continuing research to enhance our understanding of journalism and of agenda setting.

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Urban Sprawl and Its Financial Cost: - A Conceptual Framework

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Abstract

Urban sprawl has been recognized as an urban expansion which leads to undesirable impacts in terms of sacrifice of farmland and loss of amenity benefits from open space on the urban fringe. Integral to the negative impacts of sprawl is the higher financial costs that have to be incurred mainly through expenses related to the physical development in an unplanned manner. A framework of understanding sprawl and its financial cost in a developing country's context namely Malaysia is proposed based on four (4) strategic steps namely, sprawl identification, measurement, decision and financial analysis utilizing the differential costs approach by comparing financial costs of development under unplanned sprawl and a planned strategy. The framework would provide a structured insight into quantifying the financial costs of sprawl to guide economists and urban planners in making a decision pertaining to urban development.

Keywords: Sprawl, Financial cost, Conceptual framework

1. Introduction

The phenomenon of urban sprawl has received extensive attention in the literature for the past fifty years. Empirical and geographical studies for over a decade have shown that sprawl development has detrimental effects on society and is costly. Factors influencing the development of sprawl are multifaceted and include rapid urbanization, agricultural, industrialization, migration, economic development, income growth, development policy, market failures and population growth. Concept of smart growth, balanced growth management, compact growth and sustainability all reflected the desire to balance between urban growth and protection of the environment. Thus the issue of sprawl is an issue of preference rather than an issue of necessity today. This is because three billion people live in cities and it is projected that by 2030, nearly sixty percent of the world population will be urban (Burchell, 2000). Classically, urban sprawl is a US phenomenon associated with the rapid low-density outward expansion of US cities, steaming back to the early part of the 20th century. It was fuelled by the rapid growth of private car ownership and the preference for detached houses with gardens. It is clear that sprawl is associated with urbanization whether it takes place in developed or developing countries. Studies have shown that sprawl is more expensive than alternative patterns of development. The following costs are the direct result of sprawl, which include costs to taxpayers, social problems, high labor costs, new infrastructure, agriculture, car use and environment. In Malaysia, there is relatively low visibility of urban issues and there seemed to be many lingering problems which were the outcome of the urbanization process for the past thirty years. Thus, the first step in discussing the pertinent issue is to develop a framework for understanding the dimensions in financial cost of sprawl. This paper focuses on the conceptual framework on the financial costs of sprawl in Malaysia.

Urban growth follows a pattern of urban transition. The first phase is of fastest growth in the core of the city. The second phase is suburbanization with the fastest growth just outside the city core followed by the third phase that is

counter urbanization, with population in the core and suburb moving out to more rural areas. The fourth phase is re-urbanization with an increase in population in the core of the city (Berry and Plaut, 1976). According to this model, the phenomenon of sprawl would fall into the third phase of urban growth. Studies have shown that sprawl is more expensive than alternative patterns of development. The following costs are the direct result of sprawl, which include costs to taxpayers, social problems, high labor costs, new infrastructure, agriculture, car use and environment.

Sprawl had varying definitions, and the central component of most definitions is low density, pattern of land use conversion which exceeds the population growth rate over a specified time period and the changes of the rural landscape of farmlands, parks and other natural areas into human-made environments. According to Beck and Kolankiewicz (2001), sprawl is a low density, large-lot residential and commercial development that is scattered across a large land area. This land area is separated into distinct zones requiring regular inter-zone travel. Burchell (1998) defines sprawl as a low density residential and non-residential intrusions into rural and developed areas and with less certainty such as leapfrog, segregated and land consuming in its typical form. Galster et al. (2000) define sprawl as a pattern of land use that exhibits some combination of dimensions including low density, discontinuity of development and little open space within the urban area. Residents of sprawling neighborhoods tend to live in single-family homes and commute by automobile to work. The context include human settlements spreading out in poorly planned patterns, occur in respond to population growth average number of residential units of developable land and land is developed at a faster rate than the population rate.

The most fundamental characteristic of sprawl is that it includes two sets of infrastructure being created that are underused. One is the cities and older developed suburbs (oldtown) and the other the new sprawling development (newtown). The following traits make it costly, low-density, automobile dependence, leapfrog development, street segregation of housing, loss of farmland, commercial development and fragmented planning and governance (Burchell, 1998). Its effects are impacting the quality of life in every large and small cities. Sprawl leaves behind boarded up houses, vacant storefronts, closed business, abandoned, contaminated industrial sites and traffic congestion. Sprawl also creates cost such as the hidden debt of unfounded infrastructure and services, social dysfunction, urban decay and environmental degradation. The list of costs is endless so there is a need for consistent methodology to quantify the total cost of sprawl development. Sprawling developments should reflect the true costs and impacts associated with those developments. There are a remarkable number of causes of sprawl which include demographic changes, growing affluence, rent gradient, transportation, land regulation and federal tax policy (Frank, 1989). Chesapeake Bay and Mid-Atlantic (2001) recognize sprawl development consist of three basic spatial characteristic such as low-density sprawl, ribbon and leapfrog development. Low-density sprawl is the consumptive use of land for urban purposes along the margins of existing metropolitan areas. This type of sprawl is supported by piecemeal extensions of basic urban infrastructures such as water, sewer, power, and roads. Ribbon sprawl is development that follows major transportation corridors outward from urban cores. Lands adjacent to corridors are developed, but those without direct access remain in rural uses. Over time these nearby "raw" lands maybe be converted to urban uses as land values increase and infrastructure is extended perpendicularly from the major roads and lines. Leapfrog development is a discontinuous pattern of urbanization, with patches of developed lands that are widely separated from each other and from the boundaries, albeit blurred in cases, of recognized urbanized areas. This form of development is the most costly with respect to providing urban services such as water and sewerage.

The following discussion is about the factors that lead to sprawl development process. Industrial Revolution is a process of social and economic change whereby a human group is transformed from a pre-industrial society (an economy where the amount of capital accumulated per capita is low) to an industrial one (a fully developed capitalist economy). In recent years, other countries like Mexico, Brazil or Turkey have experienced a moderate industrial growth, fuelled by exportations to bigger economies like United States, China or the European Union respectively. They are sometimes called newly-industrialised countries. In 2005, the USA was the largest producer of industrial output followed by Japan and China. With industrialization, there is social and economic change which is closely related to technological innovation development in production. Industrialisation also introduces some form of philosophical change, or to a different attitude in the perception of nature as well as jobs for more people.

Urbanization is a process where cities grow as people move from the countryside in search of better jobs and living conditions. The world's cities are growing because people are moving from rural areas in search of jobs, opportunities to improve their lives and create a better future for their children. . This trend of movement will continue for the next 30 years. Also, the ever increasing number of factories created an intense need for labor, convincing people in rural areas to move to the city, and drawing immigrants from Europe to the United States. As a result, the United States transformed from an agrarian to an urban nation, and the demographics of the country shifted dramatically. Malaysia was transformed from an agricultural country to manufacturing and industrial country by the 1980's.

Migration is already contributing to sprawl (Garling, 1999). Cromartie et al (1997) define migration as the displacement of a person who leaves their place of birth or of residence for another place. It is most often internal, with migrants

remaining in their country. The migrant often leaves a rural area to live in an urban area, which fuels urbanization. International migrations are rare, with only three percent of humans living in a country other than the country in which they were born. As migration pour into already crowded urban areas, native Americans are pushed out into expanding exurbs and suburbs.

Economic well-being and quality of life for a community by creating and retaining jobs and supporting or growing incomes and the tax base when there is economic development. Burchfield et al (2006) also define economic development as a sustainable increase in living standards. It implies increased per capita income, better education and health as well as environmental protection. Economic development has evolved into a professional industry of highly specialized practitioners normally working in public-private partnerships that are sanctioned and many times at least partially funded by local, regional and state/provincial tax dollars. These economic development corporations function as individual entities and in some cases as departments of local governments. Their role is to seek out new economic opportunities and retain their existing business wealth. The measurement of success within this industry is normally job creation, economic growth and increased or retained tax base.

Income growth is a growth or increased of total amount of goods and services that a person receives, and thus there is not necessarily money or cash involved (TDM Encyclopedia, 2007). This may reveal the existence of politically unacceptable inequality of income. There may be strong political pressure to adopt policies of income redistribution by taxing the richer people at a higher rate than the middle class and giving subsidies or income-support to the very poor in a variety of ways. Political economy tends to be highly controversial because people have conflicting opinion regarding income redistribution. National income, measured by statistics such as the Net National Income (NNI), measures the total income of individuals, corporations, and government in the economy. The theoretical generalization to more than one period is a multi-period wealth and income constraint. Changing measured income and its relation to consumption over time might be modeled accordingly, such as in the permanent income hypothesis

Population growth is the main driving force of adverse impacts on the environment. Increase in the number of people in an area leads to higher pressures on the environment. More people need more space, require more energy, water, and natural resources, which inevitably leads to higher pressure on land, air, water, and natural resources. They also produce more waste, which again has an impact on land, waters, and air. Rising economy and industry also contribute to generating more pressure on the environment.

2. Measurements for Sprawl

It is necessary to have accurate and practical performance indicators for sprawl in monitoring the progress and costs of sprawl in order to achieve sustainable cities. These indicators are tools for identifying existence of sprawl in a locality. The widely used indicator is density which is expressed as the total number of population to its total land areas. Sprawl exists in low density development which is the consumptive use of land for urban purposes along the margins of existing metropolitan areas. This type of sprawl is supported by piecemeal extensions of basic urban infrastructures such as water, sewer, power and roads. The second indicator is land use change, which is leapfrog development. It is a discontinuous pattern of urbanization with patches of developed lands that are widely separated from each other and from the boundaries. This form of development is most costly in terms of providing urban services such as water and sewage. Other indicators include loss of farmland, population growth, housing affordability, crime rates, employment and travel time. Indicators help to make adjustments and to adapt actions to rapid change, to fine tune policies to fit local conditions, to identify opportunities, to become creative about new possibilities.

Density is the most important dimension of sprawl. It is expressed as the total number of population to its total land areas (Black, 1996; Alberti, 1991 and Burchell et.al, 2005). Density is seen as both the average number of residential units per square mile of developable land in an urban area and the average number of people per square mile (Wendell and Utt, 2004). A metropolitan area that has more of its population that is concentrated appears less sprawled than one with a population that is evenly distributed across its region. RERC (1974) found that capital costs per unit were higher in the low-diversity sprawl and sprawl mix neighborhood prototypes than they were in the planned mix or high density planned mix prototypes. Burchell et al. (2005) found infrastructure costs were highest in situations of low density and for development located a considerable distance from centralized public services (conditions of sprawl). Thus, density of development was found to be inversely related to lane miles of local and state roads and their attendant infrastructure costs. Infrastructure costs were lowest in situations of higher density and for development that are centrally and or contiguously located (conditions of compact development). Duncan and Associates (1989) analyzed the infrastructure costs of multiple Florida residential and nonresidential developments with varying patterns of development. Costs were higher for those with sprawl characteristics than they were for those with compact development characteristic.

Sprawl is also known as a process in which the spread of development across the landscape far out-space population growth that create a population that is widely dispersed in low-density development, rigidly separated homes, shops and workplace, a network of roads marked by huge blocks and poor access and lack of well-defined, thriving activity centers such as downtowns and town centers (Knapp et al, 1999). Population growth is the most significant factor

effecting urban sprawl in the Mid-Atlantic region. As population size increases, so does the amount of land required for residential and commercial needs. In the Chesapeake Basin alone, between the years 1950-1980, the percent of land used for residential and commercial purposes increased nearly 80 percent while population about 50 percent. Population growth are costly because it tend to providing infrastructure and municipal services in sprawl area. Studies in California and Florida have shown these extra costs to be on the order of \$20,000 per residential unit (Wassmer and Baass, 2004). Costs of services to different areas of a municipality are also influenced by location whether new development occurs in areas where existing facilities, namely schools, libraries, parks and police stations. Cities witnessing both rapid population growth and urban disinvestment at the same time can have situations where taxpayers are paying for new facilities while other facilities are being underutilized. Between 1970 and 1995, the number of public school students in Maine declined by 27,000, yet the state spent more than \$338 million building new schools in fast growing population (Longman et al, 1998).

Sprawled land use patterns increase the amount of land developed per capita, which reduce the land left as greenspace (biologically active land such as farms, forest and wetlands near urban centres. Kusher (2001) using a land use activity at rural land to define sprawl as the spreading out of a city and its suburbs over more and more rural land at the periphery of an urban area involves the conversation of open space (rural land) into built-up and developed land over time. Sprawl uses land and public financial resources. Consumers become restricted in where and how to live as sprawl develops in an area. It is clear that sprawl is associated with urbanization whether it takes place in developed or developing countries. With decentralization and sprawl development, farmland is rapidly disappearing. A study by the American Farmland Trust (1992) has estimated that the U.S. is losing about 50 acres an hour to sprawling developments. If this trend continues, the Trust estimates that 13 percent of prime U.S. farmland could be redeveloped by 2050 (Longman et al, 1998).

Housing is another indicator to measure sprawl development. Normally, sprawl will makes consumers or people reduce their consumption of housing space, making new homes smaller and the variety of housing types. For example, according to Bolioli (2001) who refers to the Grow Smart Rhode Island 2000 report, with regards to residential housing and its effect on land use and the environment, 71 percent of all housing in Rhode Island was located in urban areas. Sprawl also increase in the housing construction outside of the urban areas. For example, in Rhode Island, data from the state, most of the construction took place in the non-urban areas or sprawling areas (Bolioli, 2001). In general, increases in single-family units are considered less desirable since multi-family units are economically more cost effective and conceivably utilize less space per person for housing (Sussman, 1977). The vast majority of people are not moving into the urban areas but instead moving into the non-urban areas that finally cause a sprawl development. Despite being almost fully developed, the urban areas have land that is capable of housing more people than current numbers. For example, in 1998, within the urban areas, there were 8,723 vacant residential lots and 2,065 vacant commercial/industrial lots (Knapp et al, 1999). At a rate of four people per house that would over 34,000 more people in the cities and lessened demand for new construction in the outlying areas. Synder and Bird (1998) estimate that each \$1,000 of impact fees adds \$315 to the annual income household will need to purchase a home. This is because, market based strategies discourage sprawl development and encourage new downtown development to exacerbate housing affordability.

Much of the research on the sprawl at the metropolitan level has focused on transportation behavior, researcher have developed several other metropolitan measures that potentially influence travel behavior. Sprawl leads to increase in vehicle dependence, which has both social and private cost. In the U.S., with the decline in density, has come a greater reliance on automobile (Burchell, 1998). From 1970 to 1996, the mileage people drive has grown four times as fast as the population, and twice as fast as licensed drivers. The number of cars has also outgrown the population. The cost of owning a car can be a financial burden on families. Owning car and operating a car costs about \$3600 a year which translates to about 16 to 20 percent of total household expenditure (Young, 1995). Driving also has cost associated with lost of habitat, congestion, resources consumption and decline in air quality. The costs of the increased reliance on the automobile in the U.S. have been estimated to be as much as \$184 billion a year (Cobb, 1998), which does not even productivity losses from congestion or tax revenue losses from the land used for roads. Traffic congestion is also costly in terms of fuel loss and time loss. The average worker now spends about nine hours per week, or more than full working day, traveling in a car due to increased commuting times and congestion.

As some areas face a structural change from agricultural and industrialization and generally from the urbanization, it can develop the sprawl area. It is also when population size increases, the amount of land required for residential and commercial needs also increased. Migration, economic development and development of policy are other causes for sprawl. Sprawl is said to occur when the rate of land conversion and consumption for urban uses exceeds the rate of population growth area over a period of time. Frank et al (2000) identifies a combination of economic forces, social and technological change that have interacted to produce sprawl. Sprawl occurs in urban areas and it indicates pattern of land development in which the rate of land consumed far exceed the rate of population growth which results in an inefficient use of its associated resources.

3. The Financial Cost of Sprawl

The term “cost” is defined as the resources expended relative to a type, density and location of development. It includes physical, monetary, temporal, social and psychological resources (Burchell, 1998). They involve costs to the individual, community, society and the government and are documented overseas but none in Malaysia. Empirical data have shown that sprawl consumes thousands of acres of forest, farmland and wetland. It requires the government to spend millions extra to build new schools, streets, water and sewer lines. At the same time, sprawl leaves boarded up houses, vacant store-fronts, closed businesses, abandoned and often contaminated industrial sites and traffic congestion stretching miles from urban centers. As a result of sprawl, people suffer from increased traffic congestion, longer commutes, increased dependence on fossil fuels, crowded schools, worsening air, water pollution, increased floodings, destroyed wildlife habitat, higher taxes, loss of open space and dying city centers. It also creates a hidden debt of unfunded infrastructure and services. The list of costs is endless so there is a need for consistent methodology to quantify the total cost of sprawl development.

Extensive research over the past decades worldwide has shown that sprawl comes with a heavy price tag. Sprawl creates a never ending upward spiral costs. The most prominent researcher regarding sprawl is Burchell (1998), who provided quantitative data supporting the strong relationship between sprawl and increased private and public expenses. He published a comprehensive review, synthesis and its impact on two developments that is sprawl and controlled development. The analysis found that sprawl would result in \$227 billion in additional costs for sprawl versus controlled growth. Burchell (1998) found that US citizen in Los Angeles area pays \$535 billion to live in sprawl areas that is \$430,465 per person. Hence, sprawl is costly in terms of providing public infrastructure and services such as roads, garbage collection, and public transportation. Burchell et al (2005) found that sprawl increases local road lanes-miles by 10% annual public services and housing cost about 8%. Burchell (1992) analysed the effect of implementing a managed growth strategy in the State of New Jersey in the form of a State Plan. Two alternative futures are modelled, one with development (TREND) and another with development according to the proposed State Development and Redevelopment Plan (PLAN). The study showed that the state could save \$1.4 billion in infrastructure funding over 20 years for roads, utilities and schools if it followed the PLAN versus the TREND scheme. The PLAN approach directed new growth to where excess capacity existed, rather than to virgin territories. On the other hand, PLAN more compact than the TREND, therefore requiring less distance to be covered when linking developments by local and country roads. Burchell (1998) using the same methodology found that population, jobs and households were increased both TREND and PLAN. It was found that PLAN would save cost. For example, the cost of \$699 million in roads can make a 24 percent saving.

Table 1 includes some of the findings of his study:

Besides the social costs associated with sprawl such as health (Cox and Utt, 2004), uncomfortable living conditions associated with global warming (TDM Encyclopedia, 2007), pollutant emissions from traffic jams (Burchfield et al, 2006), physical costs namely increased infrastructure costs associated with sprawling development compared to compact development has also been emphasized (Burchell et al, 2005, Wassmer and Bass, 2004). The largest single sector of the literature on costs and benefit of current development of sprawl is capital and operating costs, both public and private. Some of the studies had variability due to the nature, that is some studied existing development, others used the hypothetical, some studied specific geographical areas while others analyzed the country as a whole. Many of the studies measure a certain aspect of development costs, capital costs, operating costs and maintenance costs but no study can measure all the potential added costs of sprawl. There were studies that measure the costs to government and ignore the cost of privately provided services (Cox and Utt, 2004). One common ground on the studies on the cost of sprawl is that it is costly than smart growth. Studies consistently found that lower densities increase public and private sector costs. A fundamental characteristic of sprawl is that there are two sets of infrastructure. The dual cost is one providing new infrastructure for those moving outward and the second is maintaining the old infrastructure for the population and economic entities left behind. These costs include roads, sewage, water, garbage collection and maintenance.

Another issue is the additional cost to the local government which has an impact on the local economy, given the interdependency between the fiscal health of a community and its economic health (Ladd, 1998). Based on the logic of capital investment (Lyne, 2002), the degree to which business are attracted to a locality depends on the ability of the local authorities to offer an optimal tax/service level that is lower taxes or, alternatively, better services for higher taxes. The presence of business in a locality generates growth cycle resulting in their contribution to the local tax-base. Increasing fiscal capacity helps localities reduce overall taxes, increase services or subsidize new businesses. If this is true, then the reverse is also true: sprawl can spur a cycle of economic decline and the “crowding out” of businesses. This occurs if sprawl produces a net-loss for the local government which, consequently, is forced to increase taxes in order to maintain the existing level of services.

Stephenson et al (2001) measures the cost of sprawl by looking at the total local government cost. The total government costs can be calculated by multiplying population served by the per capita costs to serve the population. The per capita

cost of providing services can then be effected by the spatial attributes of development (as defined above), demographics and service standards. The local governments commonly provide a variety of services such as education, police protection, water, sewer, parks, roads and recreation. The diagram below (Figure 1), basically shows the relationship between local government costs and spatial arrangement of development.

A review on the cost of sprawl appears to warrant that sprawl is costly financially (Altshuler, 1977). The municipalities in United States can no longer pay for the infrastructure necessary to develop farther and farther out in metropolitan areas. The benefits of smarter growth, but the actual cost of sprawl needs to be quantified. In discussing cost of sprawl, the benefits are also considered in terms of savings when comparison between two types of development is being carried out. So, before the financial cost of sprawl is being identified, measurement of current development patterns and the degree of sprawl is required using appropriate indicators.

4. Urban Sprawl in Malaysia

Malaysia is experiencing rapid urbanization which is a result of natural population growth and rural urban migration due to push and pull factors of social and economic conditions (Abdullah, 2003). In addition, sprawl is also the result of the moving of urban populations from major city centres to urban fringe areas due to changing lifestyle which emphasized on spacious and more comfortable and environmentally friendly living environment. With this trend continuing to happen; towns and cities in Malaysia will continue to grow and expand to accommodate the growing and complex demand of the people. Experiences have shown that rapid and uncontrolled expansion of towns and cities has led to amongst others the deterioration in the quality of urban environment and sprawling of urban development onto prime agricultural and forest areas as well as cities starting to lose their identity. In order to avoid such phenomena continuing to happen, particularly in the Kuala Lumpur Conurbation Area, towns and cities need to be properly planned and managed so that their growth or expansion can be controlled and managed in a sustainable manner. This will then hinder the land and property values and environmental quality to further decline and deteriorate. One of the strategies adopted to curb sprawling development is through the delineation of urban growth or development limits. This means that the limit of towns and cities need to be studied and identified, so that urban development can be directed to areas which are identified and specified suitable for such development (Shamsuddin and Yaakup, 2008). In such a manner, prime agricultural and forest areas as well as other environmentally sensitive area can be protected. It is hoped that such management tool can spur moderately to higher densities, eventually achieving a more efficient and livable communities. In order to justify the control of unplanned growth or sprawl, it is important to develop a conceptual framework of financial cost of sprawl in Malaysia to analyze the financial implications of sprawl compared to a more planned growth. The previous review of literature provides the foundation for a conceptual framework of sprawl and its financial cost. This will be discussed in the following sections.

5. Conceptual Framework of Sprawl and its Financial Cost

The conceptual framework of sprawl and its financial cost presented here includes four stages which lead to the determination of the financial cost of sprawl (Figure 2). The first stage is the identification of sprawl stage based on the definitions of sprawl as well as the cost of sprawl via literature reviews. The second stage focuses on the measurement indicators for sprawl which include density, land use, population growth, built-up area, housing and volume of traffic flow. Sprawl indicators are tools to measure urban conditions, changes and form the basic data for this research. The third and fourth stages concentrate on making decision whether to allow sprawl or to concentrate on planned development based on financial analysis in terms of differential costs between sprawl development and planned development. Urban physical services that form the basis of the costs analysis will be identified such as infrastructure which is the key to urban development. Among them are roads/highway, water, waste treatment, schools and residential use. The current as well as new infrastructure will be evaluated. The existing infrastructure affect current and future requirements through the repayment of existing principal and interest on any financing that was used to acquire the infrastructure. There are also cost associated with the use of the infrastructure such as power and labor. Other consideration is the ongoing maintenance and replacement costs. As for the new infrastructure, revenue requirement will include increase debt charges in future years to repay any financing, raising current revenues to finance the acquisition, incremental operating costs and maintenance costs. Assessment on the cost of providing the services will be included on-site, off-site, capital costs, development costs, operating cost, sunk cost and working capital. These analyses address the costs to be incurred by both the public and private sectors in terms of monetary costs. The measurement of cost is computed on a per capita, per housing unit and per land area basis. The financial analysis which includes the determination of the potential cost savings of planned development as compared to unplanned sprawl shall determine the financial viability of the projects. The major analytical tool of financial analysis of projects is the Discounted Cash Flow (DFC) technique. This technique translates the cash-flows extending into the future in terms of their present values. This method involves three steps which include preparation of the project cash-flow; discounting the net cash-flow and derivation of Net Present Value and Internal Rate of Return.

Financial costs are the value of all the net resources used or consumed to achieve specific organizational objectives.

Economist sees costs as consequences of choices. But this paper will view the financial cost that is relevant to the development of sprawl, where a time period for analysis needs to be assumed. The financial cost is the differential costs which are sometime known as incremental cost. These costs are the dollar differences between the costs of alternative future actions that can be taken by the project program. A project is considered efficient when the maximum amount of output is produced from the given level of inputs. For example, a case for a decision on a project to build an apartment in a sprawl area compared to a single home residential project in a planned area using the discounted cash-flow analysis. A pilot case study using an apartment project in sprawl area in Penang, Malaysia is as follows.

Residential housing Project

Site area : 3.75 acres

Density : 86.3 per s.m.

Total No of Units: 480 units

<u>Type of Unit</u>	<u>No of Units</u>	<u>Percentage</u>
15-storey apartment		
(1 apartment obtain 120 units)	4	100%
Total no of units (120 x 4)	480	100%
<u>1. Predevelopment Cost</u>		RM
Land cost @ 125,000 p.a x 3.75 acres		469,750.00
Conversion – Done		-
Land Survey 3.75 acres @ RM480		1,800.00
Soil Investigation		7,950.00
Plan fee 480 units @ RM330		158,400.00
Title survey 480 units @ RM300		144,000.00
Contribution to local authorities 480 units @ RM800	384,000.00	
Total		<u>1,164,900.00</u>
<u>2. Site Preparation and Infrastructure Works</u>		
3.75 acres x RM80, 000		<u>300,000.00</u>
<u>3. Building Cost</u>		
Apartment 480 units @ RM52, 000		24,960,000.00
Add 5% contingencies		<u>1,248,000.00</u>
Total		<u>26,208,025.00</u>
<u>4. Consultation Charges</u>		
Layout plan 3.75 acres @ RM380		1,425.00
Professional fees @ 8% of 2 + 3 (RM28, 020,000)		2,241,600.00
Project Management Cost @ RM4,500 x 18 months		81,000.00
Reimbursable + out of pocket expenses		<u>120,000.00</u>
Total		<u>2,244,025.00</u>
<u>5. Other Expenses</u>		
Landscaping 3.75 acres @ RM1, 300		4,875.00
Sales Administration Advertisement		27,625.00
Interest charges, say 25% of RM31, 000, 00 at 9% p.a for 1		
Year		<u>697,500.00</u>
Total		<u>730,000.00</u>
<u>6. Project Cost</u>		
Predevelopment cost		1,164,900.00
Site preparation and infrastructure works		300,000.00

Consultant charges	2,444,025.00
Building cost	26,208,000.00
Other expenses	730,000.00
Total	<u>30,646,950.00</u>

7. Estimated Sales Income

Apartment 480 units @ RM85,900	<u>41,232,000.00</u>
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8. Return on Capital (Overall)

Profit = RM41,232,000 – RM30,847,300
= <u>RM10,384,700</u>
Return on Capital = $\frac{\text{RM10,384,700}}{\text{RM30,847,300}}$
= 0.3366
= <u>33.66%</u>

Assumption on Financing of the Development

- (1) 70% cost of the project cost is finance by the loan from financial institution and the rest of 30% is finance by own company's capital.
- (2) Cost of the financing from financial institution is 9% p.a.
- (3) Assume that we receive the loan in one lump sum at $T = 0$ and invest in saving deposit to gain a return of 8% p.a.
- (4) Corporate tax is 27%
- (5) Cash from sales are receive 40% at $T = 3$, and 30% at $T = 9$ and $T = 15$.
- (6) Administrative cost at 0.5% of sales and legal cost at 1% cost.
- (7) Corporate required rate of return is 12% p.a. (1% per month).

Differential cost analysis is being applied in comparing the financial costs of the project in the sprawl area and a residential project in a planned and this is shown in Table 2. The total development costs for the apartment project is RM 30,646,950 and initially it may appear that this is the amount if the project is carried out. However, in order to determine the actual amount of savings that will occur if an alternative planned development project is carried out, a comparison needs to be carried out for another planned residential project outside the sprawl area. The cost savings for the development of the planned residential project is RM 5,772,990 (RM 30,646,950 less RM 24,873,960).

The analysis will be applied to the various development projects' capital improvement resources such as infrastructure, transportation, capital, operating (assets) and also resource depletion cost.

6. Conclusion

This paper provides a conceptual framework for the evaluation of the financial cost of sprawl. It starts out from literature related the development of sprawl in a region and using tools for the measurement of sprawl. Measuring current development patterns and the degree of sprawl is the first challenge due to the varying definitions. But there are three principal characteristics, which include low density, leapfrog development and unlimited outward extension (Burchell, 1998). Sprawl is a type of growth where the future costs of sprawled area versus pursuing a more compact form of future growth. The financial costs are crucial issues because of the fact that such cost is often permanent, as the layout of infrastructure may inhibit infill development in the future. This is because the spatial dimensions of land-related services constitute an independent variable. The density of a development and its location, often lying outside the jurisdictional borders of a local policymaker, produce a financial impact. Once a subdivision is developed, the need for annual operating costs is irreversible. Moreover, these annual costs accumulate in tandem with the continuing development. As land is a nonrenewable resource, a bad land-use decision carries a double loss; the direct negative fiscal impact of a particular development, as well as the decreasing space for more beneficial development which could balance off such losses.

One of the most important mechanism used by local government to address the cost of sprawl are the application of impact fees to cover infrastructure and public services. Other tools being used are the smart growth program, urban growth boundary, zoning and excise taxes. The financial tools being used are site-value taxation, land value incremental taxes, tax increment financing districts, municipal fuel taxes. These mechanisms have both positive and negative implications, which affect a region's quality of life, lowered infrastructure costs, economic competitiveness, the state of the environment and sustainability.

Rapid urbanization in Malaysia since independence fifty years ago, points to the need for urban growth management in order to achieve sustainability (Omar, 2003). The literature review confirmed that the context where sprawl exist is different and so are the patterns and if not check will lead to consequences socially, economically, environmentally and financially. It will also slow down the city development that will in turn slow other development pursuits. The ability to assess, measure and monitor sprawl depend on the availability of relevant, accurate reliable data. Much research needs to be carried out especially the financial cost of sprawl which had limited scholarly coverage till today. The potential application of financial costs of sprawl is the costs needed to be measured in terms of capital improvement but also resource depletion. According to urban theorists, there are two important prerequisites for continued city growth that is a solid economic base and density. So, if sprawl occur the result is that the core city area will lose out both their economic base and density. As a conclusion, sprawl is a man-made urban form that is costly to manage. Hence, a framework for managing sprawl in terms of understanding the associated financial costs is needed to enhance the decision making process in urban development projects.

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Table 1. Savings from planned and compact growth

Area of Impact	Savings:Lexington,KY,Delaware	Savings: State of Michigan
Developable land	24.5%	15.5%
Agriculture land	29%	17.4%
Fragile land	27%	13.1%
Infrastructure- roads	19.7%	12.4%
Utilities-water/sewege	8.2%	13.7%
Housing costs	8.2%	13.7%
Fiscal Impacts	6.95%	3.5%

Source : Burchell (1998)

Table 2. Cost comparison for two types of housing projects

Cost item	Apartment Under sprawl (RM)	Single family home Planned project (RM)	Differential costs (RM)
Predevelopment Cost	1,164,900	1,050,400	114,500
Site Preparation and Infrastructure Works	300,000	150,000	150,000
Building Cost	26,208,025	22,113,560	4,094,465
Consultation Charges	2,244,025	1,010,000	1,234,025
Other Expenses	730,000	550,000	180,000
Total Costs	30,646,950,000	24,873,960	5,772,990

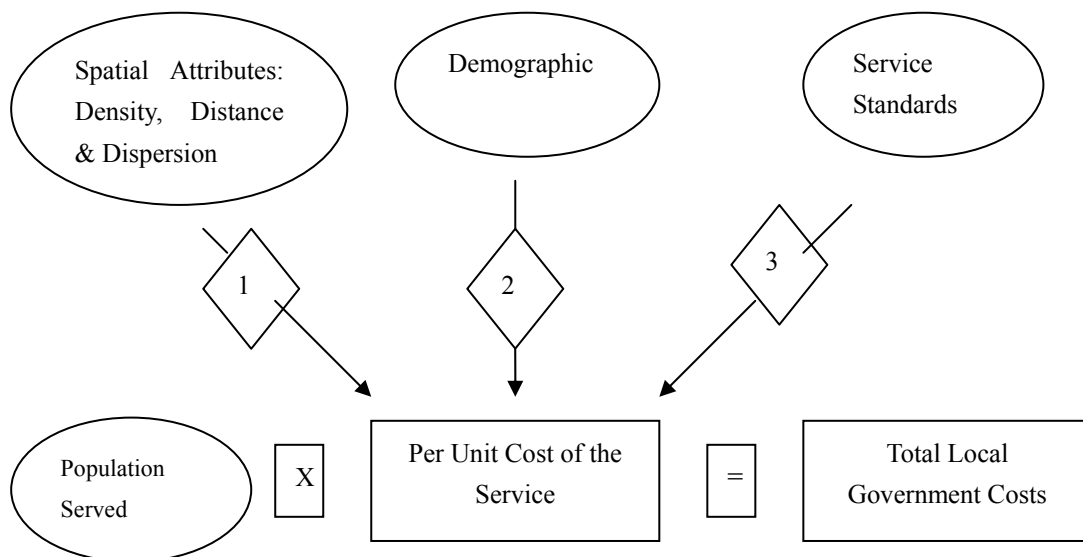


Figure 1. Direct Relationships between Local Government costs and Spatial Arrangement of Development.
Adopted from Stephenson et al (2001)

**Stage 1
Identification**

**Stage 2
Measurement**

**Stage 3
Decision
efficiency**

**Stage 4
Financial-
analysis**

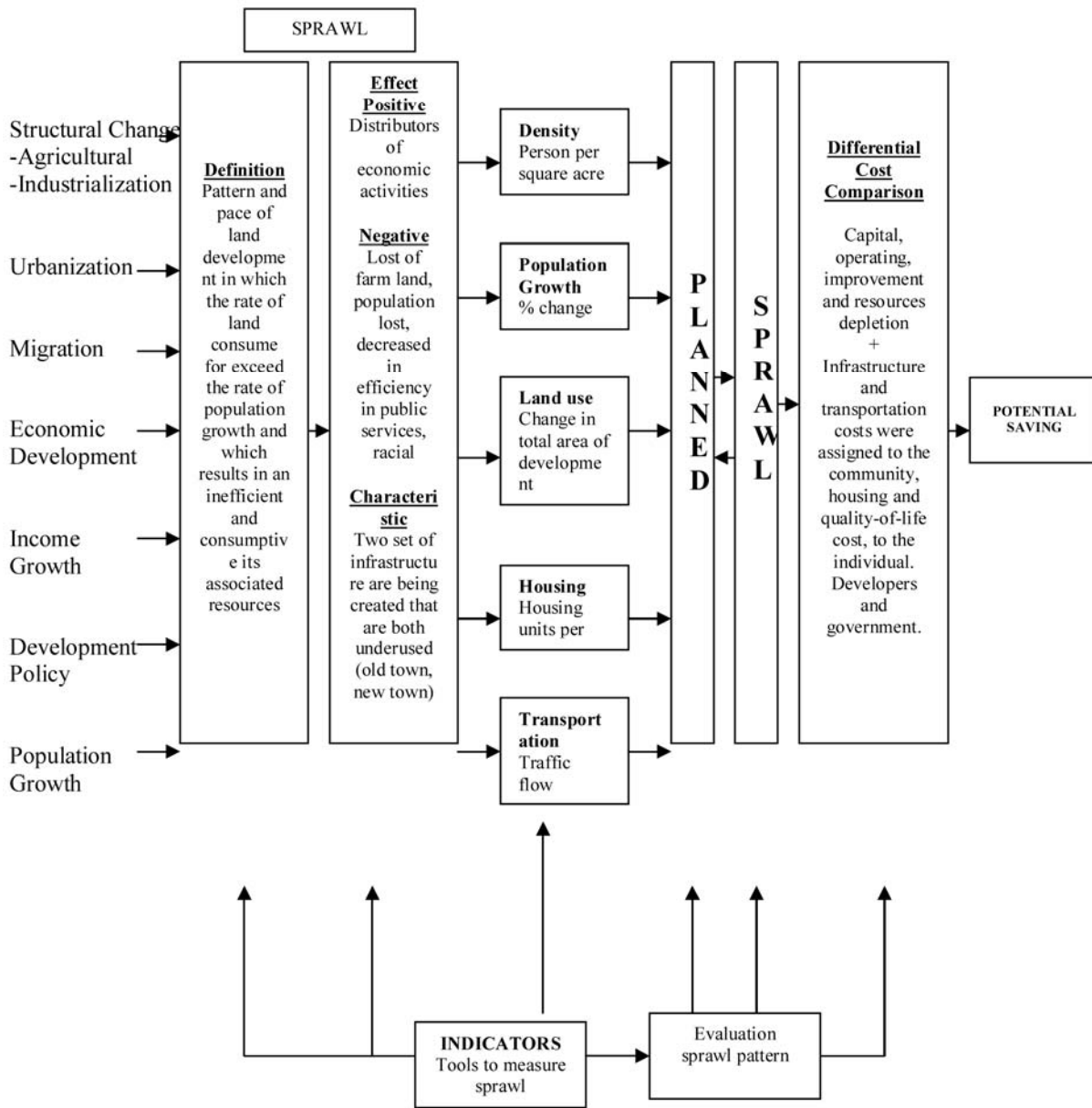


Figure 2. A Conceptual Framework of Financial Cost of Sprawl



The Media and Our Understanding of World: From Toronto School to Situationism

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Abstract

This essay aims to explore the ways in which our understanding of the social world is shaped by the media with main references to the 'Toronto School' communication theorists and also Baudrillard, the influential French scholar who is known as 'Situationist'. Marshall McLuhan, the most well known Toronto School author, argues that the media function as the environment in affecting the patterns of people's perception and understanding. For McLuhan, the form of medium itself can be equated to the message, or arguably more important than its content, for it is the form of media, more precisely, the technology underneath the media, that decides the 'human sense ratio'. However, McLuhan's overlooking of the impact of the content conveyed by media, which makes the fatal handicap of his theory, has been supplemented by the works of other scholars. The message delivered by media could be never neutral, but rather subject to diverse factors. Baudrillard offers another version of media determinism by declaring the 'death of reality' and the overwhelming occupation of hyper-reality fabricated by media in social life.

Keywords: Media determinism, Toronto School, Situationism

Introduction

It is rare that a new medium or technology is designed with an ambition to cause a transition in the world. The invention of the phonograph was for recording the last words of dying people. Telephone was a contrivance of Bell to contact with his brother should he die first, and vice versa. At any rate, our understanding of the world is shaped and reshaped by these media, especially during the era called 'mass-age'. Most ideas cited in this essay are from the works of Marshall McLuhan, which are employed to illustrate the impact of technology and the form of media in our understanding of the world by shifting the human sense ratio. I turn to situationism to search for different voices concerning mass media and its function in capitalist society. The works of situationist authors support the main point throughout this essay, by stating that our understanding of the social world is not only influenced by the form of media, but by its contents as well.

Within the realm of media study, social-scientific analysis tends to cluster around two poles of analysis (Boyer, 2006). One identifies media as instruments of the human representational and epistemic capacities. The other set of voices claim the human's capacities to represent and understand which are profoundly subjected to the technology applied in media, or media itself. Communication theorists of the Toronto School of Communication are undoubtedly the heralds of the latter.

As stating the bias of communication has its effect on the regime of empires (Innis, 1951), Harold Innis's contribution to this theory was acknowledged by McLuhan. The reason why McLuhan pays so much attention to the forms of media is that, for him, the content of the media is merely a distraction from the important issue -- the technology underneath the media and its influence in changing the sense ratios of human beings (McLuhan, 1964, 18). The media function as the environment in affecting people's understanding, emotions, and values based on the alteration of the patterns of perception. In this respect, we are not merely looking 'at the present through a rear-view mirror' of past perspective (McLuhan & Fiore, 1967), instead, we are understanding the world in a media-made manner.

His periodisation of the four epochs of communication is based on their differences of dominant medium. Oral speech, phonetic alphabet and script text, printing press, and post-print electronic media, each of them focuses on extending certain human senses. It transcends the boundaries of experience reached by earlier media and contributes to further change' (McQuail, 2006). It therefore shapes the distinct corresponding culture and understanding of the world at its time. For example, visual sense, whose rise and decline, plays an essential role in the four-stage evolution McLuhan viewed the development of visuality and culture dominated by visual media to be the main source of the 'linear continuity, uniformity, abstraction and individualization'. Ong shared a similar viewpoint by his explanation wherein he

deems writing communication (corresponding to visual culture), makes personal disengagement in communication, and distances between the knower and known as well. This was done to 'set up conditions for "objectivity"', which is contrary to the communal reaction and homeostasis in the oral society (Ong, 2000, 46). The invention of the press can be perceived as another example. The Gutenberg's invention not only deified the printed Bible, but all the written words. The national language replaced the regional dialect or tongues. Thus, the homogenization started. As printing media is regarded as the typographic extension of man, it brought 'nationalism, industrialism and mass market, and universal literacy and education' (McLuhan, 1964) into a series. Consequently, a rising number of people gained education, and for McLuhan, became the 'natural suckers' of propaganda in the interim. When approaching the electronic era, linear logic was worthless due to various experiences, which reach us at once by our extended nervous system--the media. All senses work in equitable relationship with one another. Likewise, the disequilibrium and fragmentation of the senses has been placed by the 'wholeness' (McLuhan, 1970, 16). The human awareness can be optimized, therefore communication became inherently transparent, direct, full, and immediate (Horrocks, 2000, 41). Hence, media was unlikely to fail in living up to reality. It is the techno-romantic dimension of McLuhan's theory.

After the preceding discussions, the aphorism 'The medium is the message' may become not so opaque. The medium itself can be equated to the message, or is further important than its content, medium is not content, hence, it cannot be text analyzed for denotation and connotation, nor searched for its bias or invalid premise. The immersion of media allows no outside standpoint. In so doing, it convinces people regarding the path we have chosen to observe and understand the present world as it is, which is actually determined by the dominant media technology, without ever considering other possibilities.

After McLuhan and Ong, the theory concerning media, its content, and their impact on people's understanding of the world has been advanced. Neil Postman (1985) contributed the idea that 'medium shapes the message', stating the content of the media is regulated or even dictated by the form of medium. The television, he argues, which is geared towards entertainment rather than representative (which explains the lack of fit between the electoral preferences of the press and public), demands everything to be amusing, and excludes any serious public discourse, which in consequence, makes everything trivial.

Several of McLuhan's assertion has turned out to be incorrect, especially his unbounded optimistic vision concerning the electronic media era. On the contrary, Innis became increasingly pessimistic in his later life. He argues that the bias of communication remains in any form of communication, and is now proficient in reducing time and controlling space (Carey, 1967), rather than 'time has ceased, and "space" has vanished' (McLuhan & Fiore, 1967). In so doing, it strengthens collective memory and consciousness. When certain groups acquire control of the media system, whose interests, economic, political or priestly, are to be attached with superiority or dominance, then the corollary is the monopoly of information and message. Standing opposite to McLuhan again, Innis claims the consequences of electronic media is possibilities of centralization and imperialism of culture and politics, not the return to what is 'primitive', reunification, global instantaneity or decentralization.

Extensively important, mass media reshapes our understanding of the world in various ways, further than shifting our sense ratios only. As been criticized, McLuhan focuses on the method in which we experience the world, not on what we experience (McQuail, 2006). In other words, his emphasis is on the form but not the content, which makes analyzing the text carried by any medium irrelevant (Berger, 2005). His positive idealistic vision of the electronic media epoch is bounded with his refusal to consider its content and serves as his blind spot of engagement with the mass media realm in the political and economic dynamics. Frequently, mass media tries to conceal the truth from its readers, audiences and viewers, or distort it, rather than fail to represent or reflect a coherent reality. If the message we receive from the media is not produced with intention to lead us to the real society or world, how can we have a proper perception of it? As such, in order to understand the way mass media functions, implementation is demanded for the theory of McLuhan.

The environment within which mass media or any other industry exposes can be state control or free market, or most commonly, a mixture of both. Alternately, either of them may hinder people from understanding the world via mass media. State control denotes surveillance and censorship of the content, the information and the messages conveyed by all media, even assuming different forms, are unified, or narrowed in range, status quo oriented. Within the free market system, the increasingly concentrated ownership makes a 'private ministry of information' (Bagdikian, 1990), which means, few dominant giant media corporations who command the nature of media industry disseminate increasing amount of similar output. Meanwhile, the refusal of large corporate advertisers to sponsor media content with low purchasing power targets audiences which are not helpful to sustain popularity. This forces the profit-fixated media enterprises to make 'common' text or programme as a commodity to attract audiences who are sold to advertisers. Castells stated that, 'message is the medium'. Medium is tailored in its entirety to its targeted audience, or further, to its advertising sponsors (Horrocks, 2000, 22). In short, as mass media propagates message, image or information selectively, our knowledge on which our understanding is constructed appears neither neutral nor comprehensive. The most well-known theory covering this scheme is the propaganda model proposed by Herman and Chomsky (1988).

However, the subsequent discussion below is the viewpoint known as situationism.

Guy Debord views mass media to be one of the main spectacles. Together with other ideas, it constitutes a society of spectacles within which social relation between people is mediated by images. Mass media, for Debord (1967, #24), is a technical apparatus developed in accordance with the internal dynamics of the spectacle to enable the dominator of the existing system to continue and pursue their domination on public discourse. It is a podium where the ruling order bestows its monologue of self-praise. Moreover, it is the 'unilateral communication' which has the effect of alienating its consumers from reality. As media is concentrated in the hands of the administrator, it can by no means be neutral, rather a main dynamic in the migration of alienation from the production and labour realm to consumption and everyday life. Despite regarding McLuhan as the 'first apologist' of the society of spectacle (1990, 33-34), due to his excessive optimism for the electronic media era and his neutralization of mass media, Debord noted McLuhan's change in his later life, admitting the negative effect of mass media which can lead to irrationality.

Jean Baudrillard developed this thesis by his theory of simulation and declaring of 'death of the real'. According to Baudrillard's theory, wherein the impact of McLuhan can be reflected as well, the spectacle made by the mass media trumps the direct experiences of the world. Simulation of reality has become more real than reality to the consumers who regard the significance of the sign over what it signified, or to say, the copies of reality go beyond reality. The distinction between them is blurred in the white noise of media. Hence, the concept 'hyperreal' is created. He argues that the evolution of simulation has been experienced in three stages since the Renaissance. The current and final stage we are in, where the reality is not being represented, copied, or reflected, has been created by the post modern culture, which is shaped by the electronic technology (Baudrillard, 1988, 119-48). At this point, the familiar media-determinism is again evident. In the abyss of the postmodern theory, the belief is that we are living in a society where there is nothing 'real' left that is not being mediated. Baudrillard asserts that economy is nothing more than circuits of the imaginary, politics has become a 'pure game', and even the war can be regarded as merely a media event. It is already a radical post modern view with the post-1960's despair and media cynicism. Furthermore, it is an extension of McLuhan's theory as well, suggesting that mass media, through which we understand the world, has now become the unique and omnipotent sense faculty that we can rely on. Outside of it, there is nothing.

Conclusion

In spite of the revival of McLuhan in the current digital media, linking him to the virtuality, and gaining the title as the 'patron saint' of the Wired magazine, it would be difficult to discover anyone who accepts McLuhan's all, or even most of his ideas at present. After him, various theories have been brought into play. Several of them are successive to McLuhan in numerous ways. As an example, Baudrillard asserts 'medium is the message' as the underlying axiom of his entire theory; the second generation of media ecologists attempt to apply McLuhan's model to further specific social practices and upgrade it to acquire factors (social, economical, political etc.) into their consideration of media's effect on the people and society. Meanwhile, critical voices came from other scholars against his technological reductionism and determinism. On the other hand, Castells identified McLuhan as obsolete, for his disregard of the diversification of media followed by interactivity (Castells, 341). All the critiques encouraged people to reconsider and re-estimate McLuhan from brand new perspectives. The questions remain; how are these voices heard and how could we successfully study McLuhan and his theory? How is our understanding of McLuhan refreshed time and again? The answer is the media. How can we deny the contention that media is shaping our understanding of the society and the world? Even the figure of McLuhan himself is moulded by media. Hence, Marshall McLuhan asks, 'You mean my whole fallacy is wrong?' (*Annie Hall*, 1977)

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Essentials for Information Coordination in Supply Chain Systems

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Abstract

The supply chain plays an essential role for modern companies to retain their competitive advantages in today's business environments. As supply chain members are often separate and independent economic entities, a key issue in supply chain management is to develop mechanisms that can align their objectives and coordinate their activities so as to optimize system performance. Information is a keyword in the coordination. In this paper, we provide a review of coordination of operational information in supply chain which is classified into information types, their impact on supply chain performance, and the policy of information sharing. Then the essentials for information coordination are indicated. In the end, future research direction is pointed out.

Keywords: Coordination, Supply chain management, Operational information, Production planning and inventory control

1. Introduction

Supply chain management (SCM) has become an important management paradigm. It is to apply a total systems approach to managing the entire flow of information, materials, and services in fulfilling a customer demand (Chase and Richard, 1998). Several seminal studies have identified the problems caused by a lack of coordination, and to what extent competitive advantage can be gained from a seamless supply chain (Forrester, 1961; Lee et al., 1997, pp.546-558; Chen et al., 2000, pp.436-443). Supply chain coordination leads to increased information flows, reduced uncertainty, and a more profitable supply chain. It has become a critical success factor for SCM and effectively improving the performance of organizations in various industries.

From an operational perspective, SCM is to effectively integrate suppliers, manufacturers, warehouses, and stores, so that merchandise is produced and distributed at the right quantities, to the right locations, and at the right time, in order to minimize system wide cost while satisfying service requirements (Simchi-Levi et al., 2000). In this sense, a supply chain coordination mechanism is an operational plan to coordinate the operations of individual supply chain members and improve system profit. When supply chain members are separate and independent economic entities, this action plan has to include an incentive scheme to allocate the benefits from coordination among them so as to entice their cooperation (Li Xiuhui and Wang Qinan, 2007, pp.1-16).

Information sharing between the buyer and vendor in the supply chain has been considered as useful strategies to remedy the so-called bullwhip effect (namely the fluctuation and amplification of demand from downstream to upstream of the supply chain) and to improve supply chain performance (Lee et al., 1997, pp.546-558; Metters, 1997, pp. 89-100). Information exchange is a very important issue for coordinating actions of units. There has been a great deal written on SCM (Li Xiuhui and Wang Qinan, 2007, pp.1-16; Tsay et al., 1998, pp. 299-336; Ganeshan et al., 1998, pp. 839-879; Tan, 2001, pp. 39-48; Sahin and Robinson, 2002, pp.505-535). We focus on coordination from the perspective of information flow that can align the objectives of individual supply chain members.

The paper is arranged as follows: section 2 presents the literature review and the classification regarding operational information in supply chain; section 3 points out the essential elements for coordination of supply chain operational information; section 4 makes some concluding remarks and suggests future research directions.

2. Review and classification

2.1 Information types

Information involved in literature regarding production planning and inventory control is mostly order and inventory (Lee and Whang, 1999, pp.633-640; Lee and Tang, 2000, pp.626-643; Strace et al., 1998, pp.197-230). Maloni and Beton (1997, pp.419-429) indicated that information about the state of order and the point of Sale are also should be shared. Some researches focus on the information on distributing project scheduling. The distributed project scheduling problem (DPSP) is concerned with configuration and scheduling of multiple projects in a network of enterprises which

consist of project managers and contractors. Lau et al. (2005, pp.4813-4838) emphasized how to improve the convergence and quality of the solution by taking advantage of inter-enterprise information sharing especially the sharing of schedule flexibility information.

Huang et al. (2003, pp.1483-1517) presented a model of production information, including six categories of production information that are often encountered in the analysis of information sharing. The six categories are product, process, resource, inventory, order and planning.

2.2 Impact on supply chain performance

When businesses in a supply chain focus upon the end-user there are many metrics that can be considered. However, they may be aggregated as Service, Quality, Cost and Lead-time (Naylor et al., 1999, pp. 61-73).

There has been a considerable amount of literature on information's impact on cost and service. Angulo et al. (2004, pp.101-120) indicated that forecasting information sharing between retailer and supplier can notably increase the ratio of order-fulfillment in the situation of non-stable demand. Gerard and Marshall (2000, pp.1032-1048) studied the value of sharing demand and inventory data in a model with one supplier, N identical retailer, and stationary stochastic consumer demand. They found that implementing information sharing can reduce cost (consisting of inventory holding cost and back-order penalty cost) up to 13.8%.

Since Forrester discovered the fluctuation and amplification of demand from downstream to upstream of the supply chain, a large amount of literature analyzed this phenomenon. This phenomenon is also well known as bullwhip effect. Several causes have been proposed to explain the appearance of the bullwhip effect, such as demand signal processing which uses forecasting methods not perfectly accurate, gaming among companies when demand exceeds supply, order batching which discretizes orders, and price variations which incite clients to over-order when price is low (Lee et al., 1997, pp.546-558). The consequences of bullwhip effect include higher inventory levels, supply chain agility reduction, decrease of customer service levels, ineffective transportation and missed production schedules. Lee et al. (1999, pp.633-640; 2000, pp.626-643) pointed out that sharing sale data and inventory information can reduce this effect. Chen et al. (2000, pp.436-443) quantified this effect for simple, two-stage supply chains consisting of a single retailer and a single manufacturer. They extended the results to multiple-stage supply chains with and without centralized customer demand information and demonstrated that the bullwhip effect can be reduced, but not completely eliminated, by centralizing demand information.

2.3 Policy of information sharing

The policy of information sharing includes essentially information centralization, Vendor Managed Inventory (VMI), and Collaborative Planning Forecasting and Replenishment (CPFR) (Thierry Moyaux et al., 2007). The content of information and the way to share them in the policy is different. Information centralization is the most basic policy of information sharing in which retailers broadcast the market consumption (approximated as their sales) to the rest of the supply chain to reduce bullwhip effect. VMI means that upstream suppliers manage and control downstream inventories based on their production and inventory information. CPFR shares more information (e.g. history sales data and forecast information) than only demand information. This allows the participants to coordinate joint forecasts by focusing on differences in forecasts. They also jointly define plans to follow when specific contingencies occur.

3. Essentials for information coordination

3.1 Identifying the effect of operational information

It is a key issue to make sure what the accurate information that should be exchanged is when coordination took place. The implementation of information sharing among enterprises needs cost. Tradeoff must be made between cost and obtained benefit. To do this, the effect of operational information must be identified.

The object of information exchange among enterprises is to acquire balance and stabilization of supply chain. From the view of system control, a stable system can be defined like this: a real system in a state of balance could go back to this state after a self-adjust course when it is influenced by external force. Otherwise it is not stable. The balance state of a supply chain is a state in which downstream and upstream enterprises join tightness, production process is persistent, requirements can be fulfilled in time, and the indexes of supply chain performance are fixed in a certain time. This state could be denoted by such indexes as cost of inventory, fulfillment rate of order, and lead time, et al. Combining qualitative analysis and quantitative research is useful to identifying the effect of operational information.

3.2 Compartmentalization of operational information coordination

Operational information coordination can be compartmentalized in three ways. Firstly, operational information coordination in supply chain experiences internal coordination and external coordination. Enterprises (especially the manufacturer) should implement internal coordination first. Internal coordination aims to send accurate information in exact form to people who need them for production and management at the right time. Then the supply chain arrives at a new level, and a new instability point would take place. In this point, different modes of information exchange

between this enterprise and the others in the supply chain might lead the system to various states, presenting inventory cost high or low, response to customer quickly or slowly. To select one of them, supply chain system needs extra information, which provided by other partners.

Secondly, operational information coordination can be compartmentalized according to the span and the depth of information flow. Monolayer information flow is between retailer and distributor, or between distributor and manufacturer, or between manufacturer and supplier. Multilayer information flow enables any enterprises getting the information as needed (refer Fig. 1).

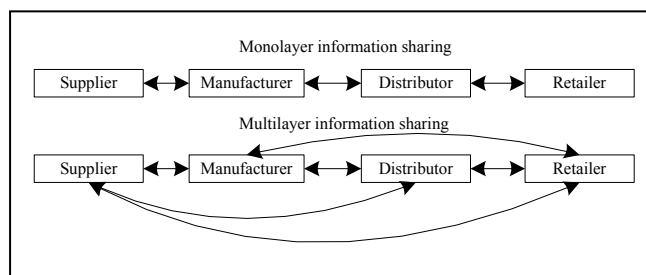


Figure 1. Span of information flow

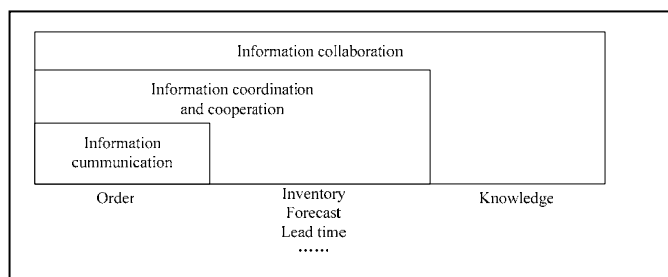


Figure 2. Depth of information flow

The depth of information flow refers to the vertical dimensions in which different information are exchanged (refer Fig. 2). It may consist:

- Information communication. This is the original state of information exchange in supply chain among enterprises. The content of exchanged information is none but order to enable the production activity developed to fulfill demands of customer.
- Information coordination and cooperation. In a volatile market place, competitive advantage needs to be gained from a seamless supply chain. Coordination and cooperation in general have a common goal: to create a transparent, visible information flow through the entire supply chain. So, much more information (e.g. inventory information, lead time information and forecast information) should be shared besides order to acquire mutual benefit, save money and cost, and improve the efficiency of operation.
- Information collaboration. With the increasing of uncertainty, supply chain collaboration has been strongly advocated since the mid 1990's under the banner of concepts such as VMI, CPFR, and Continuous Replenishment (CR) (Matthias Holweg et al., 2005, pp. 170-181). Collaboration is the process of shared creation: two or more individuals with complementary skills interacting to create a shared understanding that none had previously possessed or could have come to on their own (Swaminathan et al., 1998, pp.607-632). Collaboration creates a shared meaning about a process, a product, or an event. In this sense, there is nothing routine about it. Something is there that wasn't there before. Information collaboration drives at knowledge creation in supply chain. When collaboration, enterprises in supply chain use information to create something new: new perspectives and new products.

4. Risks and inspiration of information sharing

Information exchange in supply chain cannot be carried out freely because enterprises are independent economic entities. From the point of economics view, risks in information sharing are original from the enterprise's behavior of opportunism. From the point of management view, that the desire conflict, hard supervising and possible leakiness of secret information blocks the enterprise's enthusiasm to share information. So the implementation of information sharing needs keeping away risks and inspiration. The measures for former include selecting appropriate partners, discriminating the information from partners, establishing mechanism of risk alert and coordination. The measures for latter include discount policies, inspiring with price and mode of return.

5. Conclusion

Information coordination is a key approach to achieve supply chain coordination. Information types, their impact on supply chain performance, and the policy of information sharing are significant content in the research of supply chain coordination.

To implement operational information coordination in supply chain, defining the effect of operational information is where the shoe pinches. Combining qualitative analysis and quantitative research is very useful to do this. With the development of artificial intelligence, agent-based modeling method becomes a noticeable way in the research of supply chain coordination (Swaminathan et al., 1998, pp.607–632; Fox et al., 2000, pp.165-188; Allwood and Lee, 2004, pp.101-120). Multi-agent computational environments are suitable for studying classes of coordination issues involving multiple autonomous or semi-autonomous optimizing agents where knowledge is distributed and agents communicate through messages. Since supply chain management is fundamentally concerned with coherence among multiple decision makers, a multi-agent modeling framework based on explicit communication between constituent agents (such as manufacturers, suppliers, distributors) is a natural choice. For future research, we will use this method to modeling information coordination in the supply chain.

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Generic Skills to Reduce Failure Rates in an Undergraduate Accounting Information System Course

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Abstract

This paper reports on an initiative to reduce the failure rate in an undergraduate accounting information systems course without compromising academic standards. The initiative relied on the development of generic skills in the major assessment tasks. The result was to significantly improve the amount of effort students applied to their internal assessment tasks and also to reduce the overall failure rate. Recommendations are made for practice and linked to the literature on failure in academia.

Keywords: Generic skills, Academic failure, Accounting education, Accounting information systems

1. Introduction – the neglected issue of failure within academia

There are surprisingly few publications addressing failure rates within academia. It is an important issue with economic and social consequences for both the failing students and the academic institutions. It is a particularly important issue within Australia because of the decreasing levels of public funding and the heavy dependence on international students to keep the education sector viable (Harman, 2004).

High failure rates deters students from enrolling and reduced enrolments affects the short-term viability of an institution. An obvious temptation is to improve pass rates by lowering standards, but the reputation of the institution would eventually be tarnished and if it became a widespread practice the viability of the whole educational sector would be affected. Within Australia this would be unacceptable because the higher education sector is the third highest export and contributes to around 5% of GDP.

Most academic institutions will try to resist lowering academic standards to maintain the pass rate. However many do not have the option to turn away the lower ability students if they are to remain financially viable. Pedagogical solutions therefore need to be found that reduce failure rates without compromising academic standards. This paper explores this issue through the lens of the high failure rates in an undergraduate accounting information systems course.

1.1 A course with a high failure rate

University X is an example of an academic institution having to resolve these tensions. It has over 30,000 students with one third being international students. The business faculty is the largest within the university and more than half of their students are international students. A significant proportion of the business faculty students major in either Accounting or Finance.

Accounting and Information Systems is a compulsory second year undergraduate course in the Accounting major with an unusually high failure rate at University X. This high failure rate has been tolerated because it only applied to this one course and the Accounting Department felt strongly that high standards had to be maintained. Colleagues from other academic institutions have commented with respect on the policy not to pass the weaker students and they commented that other institutions have not resisted the pressure as well as University X. However, the high failure rate sat uncomfortably with the author and provided the motivation to develop interventions to both improve quality and reduce the failure rate.

1.2 Hypotheses to explain high failure rates

Informal discussions with staff involved in Accounting Information Systems (AIS) units have identified what they believe are the issues that are leading to the high failure rates. The issues include: international students, late transition,

unit content, weak students, poor generic skills, student perception, and low levels of student commitment among failing students. These issues will be used as the frames or lenses through which this study will be analysed.

The paper will explore the issue of academic failure by firstly reviewing the literature for each frame. It will then describe an intervention that was taken to try to reduce failure rates. It will then present the results of the intervention and discuss them in the context of the literature. It will finally conclude with recommendations for further research and practice.

2. Literature Review

2.1 International Students

“Australia has become the third largest exporter of higher education, mainly to a limited number of South East Asian countries” (Harman 2004, p101). International students face several unique difficulties. At one level they may experience more serious alienation than local students because of difficulties in assimilating with university campus life (Klomegah, 2006). The other major difficulty relates to styles of education.

The Chinese and the western styles of education are very different. The Chinese system perceives the teacher as the ultimate authority and discourages disagreement (Ladd and Ruby 1999). The western style accepts and often encourages debate. Huang (2005) reports many variances between Chinese students’ perceptions of a good lecture and the way western lectures are conducted.

This creates an uncertain and sometimes stressful environment for international students of South East Asian origin, particularly in subject areas where judgement is required and where there are no predefined right answers. Ladd and Ruby (1999) recommend that instructors investigate international students’ learning styles and gradually adjust and introduce western styles to the classroom. Kember (2000) recommends a strategy that focuses on deep learning and group work because Asian students favour collective achievement. He adds that such strategies are also beneficial for a mixed classroom, because they follow good practice guidelines that are of benefit to all students. With group work, Strauss and U. A. (2007) advise that students should be introduced to strategies for dealing with such group conflicts, especially when conflicts could be exacerbated by cultural and linguistic differences.

2.2 Late Transition

Many AIS students at University X are late transition students. They complete their first year accounting studies in a college affiliated with the university and enrol in AIS in their first or second semester of joining the university. This imposes a demand on them to adjust to larger class sizes and a higher degree of independent learning. This is a significant challenge because students nowadays are less prepared for university work, and tend to spend less hours studying than their predecessors (Nonis and Hudson, 2006).

During the transition, students may have problems in adopting the cognitive behavioural modifications required at university. They need to “look at themselves as learners, to think about how they learn, to set goals, to actively apply strategies, and to monitor themselves as they advance towards a goal” (Thompson and Geren, 2002, p. 402).

2.3 Unit Content

The adjustment is particularly difficult because of the nature of the subject. Accounting Information Systems is a new and developing topic with minimal authoritative guidance from international accounting bodies (Chayeb and Best 2005). It is not a typical accountancy unit, but has a more managerial, decision making, and information systems focus. Within Australia accreditation requirements specify three major topics: Controls, Ethics, Systems Development. Each topic has some key concepts but their application requires considerable judgement. AIS questions seldom have one right answer and students need to interpret ambiguous situations and make and justify recommendations. This clearly sets AIS apart from most accounting and other mathematical units that the students may have completed, as they are often much more structured.

This creates real difficulties for students who expect to rote learn without the intention to understand the underlying context and apply knowledge in different contexts (Kember, 2000).

2.4 Weak Students

Most failing students have very low Grade Point Averages (GPAs), indicating a poor performance in their non-AIS units. The intellectual hurdles are compounded by the quality of students undertaking business courses. An anonymous professor lamented that “many have the aspiration but not the ability”.

Peer leaning and peer assessment has been recommended and is gaining favour as a learning technique (Topping 2005). Using this approach, students learn from peers by collaboratively studying and assessing other students’ work, and evidence suggests that this learning is particularly improved when the assessment method includes feedback about products and processes (Van Den Berg et al, 2006; Bloxham and West, 2004). Benefits include: “Increased student responsibility and autonomy, evaluative skill development, insight into assessment procedures and expectations for high

quality work, students work harder with the knowledge that they will be assessed by their peers, potential for providing increased levels of feedback without increased demands on tutors, and encourages deep rather than surface learning.” Cassidy (2006, p. 511)

Others recommend online facilities to support learning (Kippen, 2003). Flynn, Concannon and Ni Bheachain (2005) argue that such blended learning is of particular importance in accountancy education especially because of the large class sizes. Virtual forums provide opportunities for students to give and receive feedback.

2.5 Generic Skills

In addition to any general weaknesses, undergraduate accounting students do not fully understand the importance of generic skills in the accounting profession. They have a tendency to underestimate the importance placed by employers and educators on non-technical skills (such as communication skills) and rank technical accountancy skills much higher (Usoff and Feldmann 1998).

Generic skills include “effective reading, writing, analytical, conceptual thinking and critical thinking skills, an ability to solve problems in an unstructured setting, an understanding of organisations, international and multicultural knowledge and the ability to resolve ethical dilemmas” (Nathan and Dunn, 1997, p189). These skills are almost essential to do well in AIS because a large component of the final exam is usually based on case studies, and students are expected to apply their knowledge of the unit’s theoretical concepts. International students face the additional hurdle of having to develop their generic skills in a second language.

Research by Alfian and Othman (2005) on Business and Accounting students in a non English speaking country (Malaysia) found that Chinese students often excel and surpass their peers. This study did not relate to AIS specifically but it suggests that the different styles of teaching and/or language proficiency could be the major barrier faced by similar students in a Western context.

The views on how to rectify this problem range from improving students’ generic skills to the introduction of multilingual modules and facilities. This latter suggestion is highly unlikely and impractical in the current context of students with a wide array of diverse linguistic backgrounds but it is mentioned because there is a concern that the current system could lead to discriminatory standards and inherent inequalities (Freidenberg, 2002). A focus on generic skills seems more reasonable and Nathan and Dunn (1997) recommend the use of business press articles to get students to reflect on and debate real life scenarios. When generic skills development involves group work tasks, Woszczynski, Myers, and Moody (2006) advise Information Systems (IS) educators to take into account sensitive ethnic and gender issues, due to the proven differences in values, perceptions, and sensitivities arising from students’ cultural backgrounds.

2.6 Students’ Perception

There is much anecdotal evidence to suggest most students consider AIS to be relatively unimportant. The extent to which this perception is held has never been quantified, but students, especially those with little or no industry experience, find it hard to appreciate the central role of information technology within the accounting profession.

This perceptual problem may arise because “...students’ needs and the course’s needs sometimes do not match. This can sometimes result in uncertainty and unpredictability for students, which can lead to frustration” (Rodrigues 2004, p. 179)

2.7 Students’ Commitment

The mistaken student perception manifests itself through poor attendance at lectures, poor preparation for tutorial group discussions, a failure to take advantage of support services, and poor performance with internal assessment tasks.

Students with an Asian background tend to be motivated by their future career focus (Kember, 2000), and their level of commitment to the subject may be adversely affected by their incorrect perception of its importance.

At a more fundamental level, there is strong anecdotal evidence that many students have no interest in accounting what-so-ever and choose to pursue accounting studies due to external factors such as favourable Australian immigration policies towards accountancy graduates (Biggs, 2003). Many students have openly confessed that the only reason they are studying accounting are the favourable immigration policies to meet the high demand for accountants in Australia.

This raises fundamental questions about student motivation and their commitment to study and achieve. The earlier recommendation for group work offers little advice on dealing with group conflicts that arise because of lack of commitment. It was noted earlier, that most students do not take much advantage of the supporting services available to assist them in improving their knowledge and ability in the subject.

Taken as a whole, this consideration of the potential issues suggests that the challenge of reducing the failure rate in AIS is a non-trivial task.

3. The intervention

The Lecturer-in-Charge of AIS in 2007 semester 1 without the benefit of this literature review, felt that generic skills were the key to improving the situation. He applied for and received a Learning Excellence and Development grant to modify the curriculum to include the development of generic skills. His logic was that students were not adequately prepared during the semester and did badly in the subject as a result. His intervention required students to work both individually and as a group to prepare weekly answers to tutorial exercises and make presentations of their answers during the semester. Generic skills were to be developed through weekly discussions with peers, preparation of the group assignment and presentation of the group answers by individuals.

He believed that students would be inclined to work harder if they had to make a presentation. He constructively aligned the student and course objectives by creating tutorial exercises to match the case study style of exam question in the final exam and in many cases used previous exam questions as the tutorial assignment. He went further and weighted the internal assessment marks to heavily emphasise the group assignments and the individual presentation. A comparison of the changes to the previous semester is tabled below:

Insert table 1 here

In addition to this several new support services were put in place to assist weaker students. These included the provision of Peer Assisted Learning, free voluntary discussion sessions lead by student leaders who have completed the unit with impressive results. Online innovations included a discussion forum and online access to the most recent marks and attendance data.

The normal support services were maintained. These included face-to-face consultation times with lecturers, recording of lectures and making them available online, university study support (how to study, write, reference, and research) and availability of all lecture and tutorial materials online.

4. Results

The results of the intervention are reported below. Demographic statistics where they are available are reported first to understand the context of the results and confirm earlier hypotheses.

The cohort of AIS students in semester 1 of 2007 was typical of earlier semesters. Table 1 shows that only 14% of the students were local. The remaining 86% were international students with 70% from China or Hong Kong.

Insert table 2 here

Table 2 presents evidence to suggest that the 2007 semester 1 cohort were very weak. At University X students are grouped according to their past results into 5 bands: Band 1 to Band 5. The Band 1 and Band 2 bands represent students that on average have failing grades with Band 1 being the lowest band. There were relatively few students in 2007 semester 1 that had this historical data because the majority were late transition students (see Table 3), but those that did were very weak academically. 48% of the students with historical data were in the lowest band and 71% of students had a failing Grade Point Average.

Insert table 3 here

Table 3 summarises how students gained entry into the programme of study. Only those students with a GPA score (6%) were likely to have had prior experience of a large university environment. Only those students with a UAI score (34%) were likely to have had experience of the Australian education system. 85% of the students had gained entry to University X through an affiliated college which provided much higher levels of support. The total in table 3 exceeds 100% because students may have multiple qualifications/entry points.

Insert table 4 here

4.1 Results of intervention

The internal assessment tasks in 2007 semester 1 were quite different from 2007 semester 2 so the results cannot be directly compared. The 3% improvement in average internal assessment results should therefore not be overemphasised. However, difference in the shape of the distribution curves is very meaningful because both the topics covered and the lecturers of each topic were very similar.

The skew in 2007 semester 2 is -0.38 or close to normal, but the skew in 2007 semester 1 is -1.88 because the majority of students performed very well and left a long thin tail of low performers. It suggests the majority of students worked much harder than in the previous semester and only the very uncommitted students received poor grades in their internal assessment. It is possible the better students will have pulled up the weaker students through the group work, but the group work only accounted for 20% of the internal assessment. The remaining 30% (total of 50%) is the result of individual effort.

Insert figure 1 here

The unscaled raw results of the final exam in 2007 semester 1 are directly comparable to the unscaled raw scores in 2006 semester 2 (Figure 2). The weighting of the topics covered in different sections of the exam case studies were almost identical and the style of question in each section was also the same (e.g. questions mainly based on cases studies to examine interpretative judgement). It is worth noting that the exam structure and nature of questions in the previous semester (2006 semester 1) was also largely the same and there was no unfair advantage for repeating students in the period being studied.

Insert Figure 2 here

There was a 3.4% improvement from in the final exam results (Actual averages will not be disclosed to protect privacy). The sample size in 2007-1 was sample size was 507 and the standard deviation was 12.2% (based on students that sat the exam rather than total enrolments). The sample size in 2006-2 was 308 and the standard deviation 12.4%. Assuming a normal t distribution, the probability that the intervention did not made a difference = 0.007% which is highly significant (because it is 4.28 standard deviations away). It is even more significant when we consider that the 2007-1 students appeared to be a weaker cohort than in 2006-2.

It is notable that the improvement was not characterised by a strong skew to the right as with the internal assessment results. This suggests the benefit of working harder for the internal assessment tasks did not carry through in most cases to the final exam. A detailed analysis revealed that the quality of the exam answers was much lower than in the group assignments. It was found that most students answered all the major questions in 2007 semester 1 without scoring zero. This was quite different to 2006-2 where two of the major questions (>10marks) had greater than 30% of students either not answering or scoring zero for the question. In 2007-1 only the last question had higher percentages of students not answering or scoring zero (20%) and many students complained on the online forum that there was not enough time to complete the final exam. The suspicion is that weaker students had been helped by the generic skills assignments to understand the key concepts but did not have the time and sufficient command of English to find the words to adequately express themselves. This suspicion is currently being investigated through a more rigorous quantitative analysis.

Despite these comments, the improvement is still very meaningful. It is a prerequisite of the course to perform satisfactorily in all assessment tasks to pass the course. Students normally perform better in the internal assessment tasks than in the final exam. This means that if they fail, it is usually because they have not performed satisfactorily in their final exam. At University X, individual examiners have the discretion to determine what will be accepted as a satisfactory performance. Figure 3 illustrates several variations. If an examiner had determined that the cut-off for a satisfactory grade was at the first red line in Figure 3, then 8% more students would have passed in 2007-1 than in 2006-2. If an examiner had determined that the cut-off for a satisfactory grade was at the second red line in Figure 3, then 9% more students would have passed in 2007-1 than in 2006-2. If an examiner had determined that the cut-off for a satisfactory grade was at a position between the two red lines in Figure 3, then 6% more students would have passed in 2007-1 than in 2006-2.

The reported failure rates are therefore not directly comparable because the examiners have set different cut-off points for satisfactory performance. If they had exactly the same the improvement in failure rates would have been 8%. However because they were not the same it seems more valid to report a 6-9% improvement based on the raw scores. This improvement is noteworthy, but much more improvement is necessary. Ideally the failure rate should be less than 20%, and even stricter criteria for satisfactory performance need to be targeted.

Insert figure 3 here

For completeness the overall results are shown in Figure 3. The overall average improved by 4.2%. However the results are not directly comparable because the weighting for the internal assessment was higher in 2007-1 than in 2006-2. The failure rate was influenced more by the final exam in the majority of cases, and the overall grade is only relevant in determining which passing grade was awarded.

Insert figure 4 here

4.2 PAL & other support services

The above discussion strongly suggests the intervention improved the results. We now need to consider whether the improvement was mainly a result of the generic skills intervention or whether the other initiatives such as the introduction of PAL had a significant impact.

It turns out that the majority of students did not attend PAL sessions (309 /524). The 225 students that attended one or more PAL sessions tended to earn better marks than those who did not, particularly as it related to the accounting software assignments (QB1 & QB2) and group assignments. This is surprising because the PAL session did not focus on the accounting software to any degree.

There did not appear to be a correlation between the numbers of PAL sessions attended and the improvement in results although students that attended all 11 PAL sessions had significantly better results than the others. This suggests that PAL attracts the more committed students and their commitment accounts for their improvement in results rather than their attendance at the PAL.

Insert table 5 here

No statistical information was collected to assess student uptake of services to support study. Face-to-face staff consultation times were available to students on every day of the week and students were encouraged to use them to raise issues of concern. The experience of the authors is that few students took advantage of this opportunity.

Students, especially internationals, were also encouraged to take advantage of university support services to improve their writing and other lower level generic skills. However the perception of several teaching staff is that not many students took advantage of these services. Anecdotal evidence suggest that the efforts to promote these services were not effective because many students seemed unaware they were available. This is an area in need of attention because it seems that the weaker students did not gain enough benefit from the group work and need additional assistance to improve their writing skills.

4.3 Student Feedback

Student feedback was sought through a standard survey evaluating their experience of the unit. The results are summarised in Table 6 where the score is based on a five point scale corresponding to 5 – strongly agree to 1 – strongly disagree.

The results confirm students clearly understood what was expected of them. Students recognised the learning activities to be both useful and helpful for their understanding and felt that the organisation and teaching staff were of a high quality. It is disturbing that students did not feel the assessment criteria were clearly defined because they were given marking guides every week, and the marking guides were almost exactly what the examiners used to mark the final exam papers in 2006-2.

The main student issues related to workload and the way tutorials were organised. There is no question that there is room for improvement and this will be discussed below.

Insert table 6 here

5. Discussion

The generic skills intervention and PAL were the two main changes introduced in 2007 semester 1. Most other aspects of the course were unchanged, and the final exam in particular was directly comparable to the previous semester. The result of the interventions was to significantly increase the level of preparation for tutorials during the semester and to reduce the failure rate by 6-9% based on final exam raw scores. It is a particularly significant result because the 2007 semester 1 cohort of students appeared to be weaker than any previous semester.

The evidence suggests the generic skills intervention was responsible for the majority of the improvement. PAL may have contributed in some degree.

The literature suggests why the generic skills intervention was effective. It addressed the issue of student perception by heavily weighting the internal assessment to encourage students to focus on the generic skills assessment tasks. Few students will deliberately set out to fail and it was made clear to them that not only were the generic skills assessment tasks worth 30% of the overall course, they were also strongly aligned to the final exam. Students had a clear understanding that the skills to be mastered in the generic assessment tasks related to 80% of the overall course (internal assessment plus final exam).

The generic skills intervention made extensive use of group work which is recommended in the literature. However the design of the intervention was not informed by the literature and students were not introduced to strategies to deal with group conflicts. This oversight contributed to a number of incidents between students. The issue of free-riding team members was expected but it was not adequately resolved because, on balance, it was decided the pros outweighed the cons in this matter. On reflection one suspects the issue might have been reduced significantly if the issue of group conflicts and their resolution had been introduced during the discussion of ethics, which is a main topic in this unit.

6. Recommendations for Improvement

The discussion leads to a consideration of what could have been done better. The intervention was successful to a degree, but the failure rate remained unacceptably high. It is suggested that another attempt should be undertaken with an additional lower level generic skills intervention to help the international students with their written English. This however would add even more to the workload and the intervention would have to be redesigned to overcome this issue.

With respect to the workload, it is a big burden to ask students to meet every week (online if necessary) to discuss their answers. The results justify the intervention, but consideration needs to be given to ways of reducing the workload without reducing the benefits. The advantage of reducing the number of group assignments is to also reduce the cost of implementing such an initiative. It was found that the marking of the group assignments took too long for the individual tutors and caused a great deal of resistance to the initiative. The solution was to relieve tutors of this responsibility by appointing a marker to mark all the group assignments each week. It was fortunate a research grant of \$3,000 was available to cover this overhead. It is suggested a slightly smaller but similar sum needs to be available to cover contingencies of this sort for future initiatives.

Finally the tutorials can be improved with a minor change. It seems important to give each student two opportunities to improve their presentation skills but when students are organised into groups of four, it is necessary to have all the students from three different groups present at the beginning of each tutorial. This leaves insufficient time for the students to ask questions and for the tutor to add value. It is a small matter to organise students into groups of five instead of four. If tutorial classes are no more than 25 students, there is no need for more than one group of five students presenting at the start of each tutorial and still give each group a chance to present twice in a semester.

There is also the option of only adding an intervention to improve the lower level generic skills and dropping the group assignments and individual presentation. However, this seems very timid given that the intervention has been tried once with some success. Teachers are encouraged to try variations and report back on their results. The issue seems too important to ignore.

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Table 1. Summary of changes to assessment weightings

	2007 semester 1	2006 semester 2
<u>0. Review Tests</u>		10 marks
<u>1. Accounting Software Assignment</u>	20 marks	20 marks
<u>2. Tutorial Preparation & Participation</u>		10 marks
Four random collections		
Best 5 weekly team submissions	20 marks	
Individual Presentation	10 marks	
<u>3. Final Examination</u>	50 marks	60 marks
<i>Total</i>	100 marks	100 marks

Table 2. International Students

Permanent Address country	%
China	61%
Australia	14%
Hong Kong	9%
Korea	7%
Bangladesh	1%
India	1%
Other	6%
	100%

Table 3. Weak Students

	2007 semester 1	2006 semester 2
Band 2	23%	26%
Band 1	48%	44%

Table 4. Late transition

	% of all students*
GPA	6%
UAI/TER	34%
Affiliated College	85%

Table 5. Average Results vs. PAL attendance

PAL sessions attended	# students	QB1	QB2	Individ. presentation	groupwork	coursework	exam	overall
0	309	60%	65%	60%	57%	60%	44%	51%
1	26	67%	69%	60%	62%	64%	45%	54%
2	16	75%	75%	61%	61%	67%	47%	57%
3	17	67%	66%	60%	61%	63%	41%	52%
4	17	68%	69%	63%	63%	65%	45%	54%
5	15	63%	72%	61%	61%	64%	46%	55%
6	17	65%	75%	64%	62%	65%	43%	53%
7	20	69%	73%	66%	63%	66%	49%	58%
8	18	64%	74%	56%	63%	64%	46%	55%
9	21	68%	69%	68%	62%	66%	48%	57%
10	25	68%	68%	63%	62%	65%	46%	55%
11	23	76%	77%	71%	65%	71%	52%	59%

Table 6. Student Experience of the Unit

Assessment Criteria	Ranking
Clear Goals and Standards	4.05
Learning Support	3.95
Organisation	3.90
Teaching staff	3.90
Intellectual challenge	3.85
Appropriate assessment	3.76
Feedback	3.69
Appropriate workload	3.68
Tutorial quality	3.60

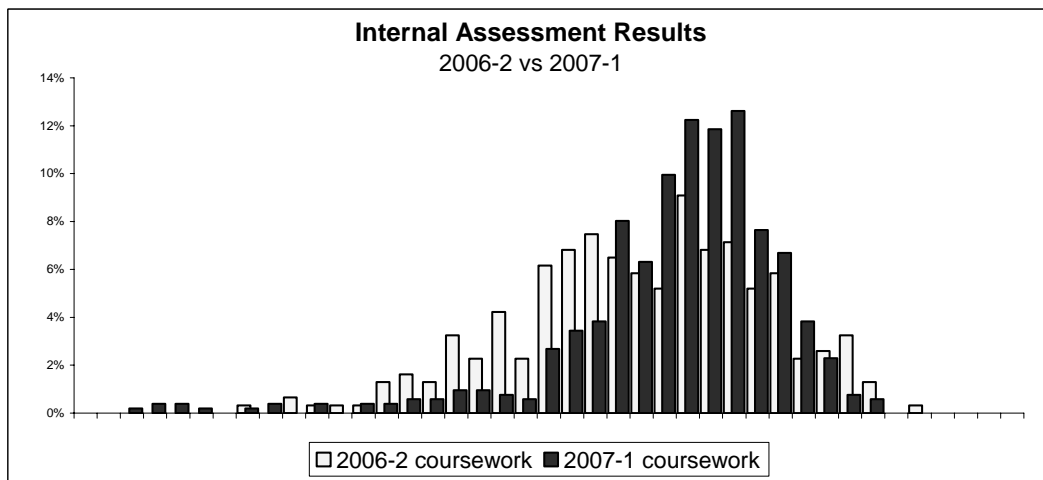


Figure 1. Comparison of Internal Assessment Results

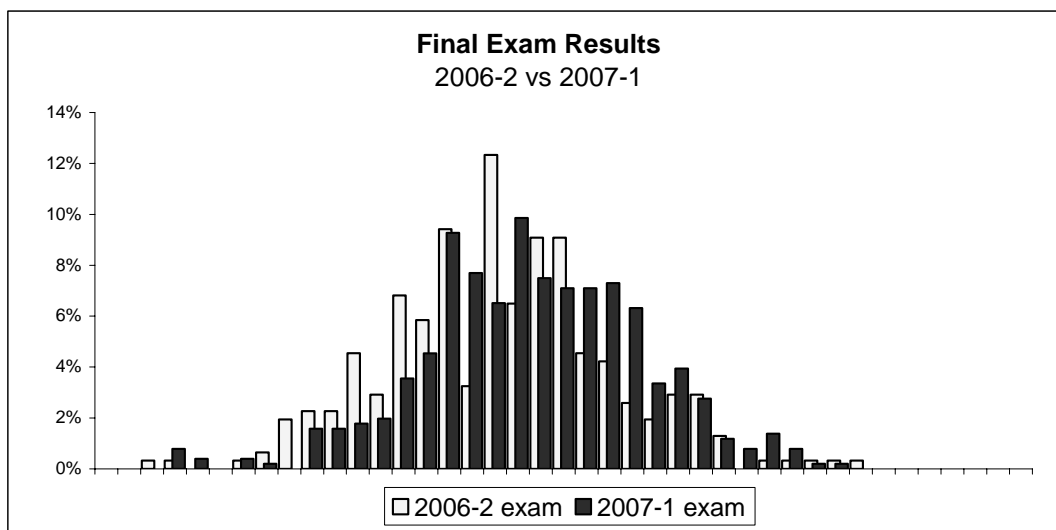


Figure 2. Comparison of Final Exam Results

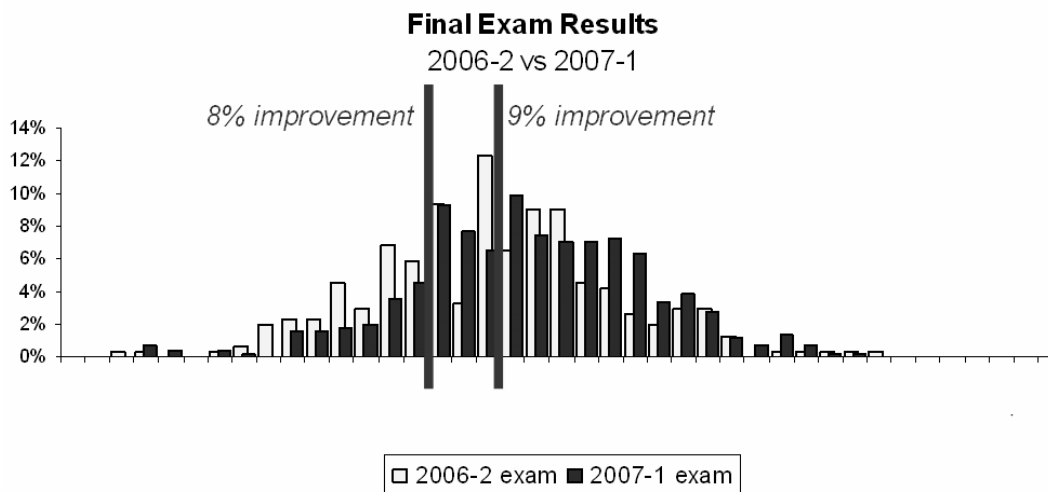


Figure 3. Improvement in failure rates

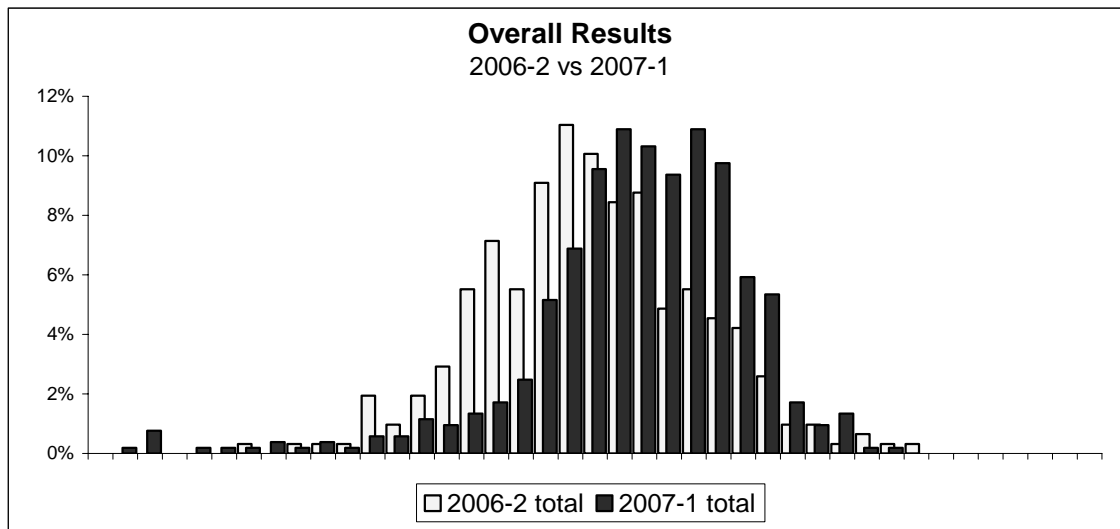


Figure 4. Comparison of Overall Results



A Study on the Finance Transfer Payment of Government-Subsidized Student's Loan (GSSL)

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Abstract

Since the new system of Government-Subsidized Student's Loan (GSSL) was in function, each provincial government need to pay interest in finance and risk compensation fund. So it is inevitably for them to ask for the finance transfer payment from the central government. In this article, the author analyzes theoretically the finance transfer payment of GSSL, on the basis of this work, he takes foreign experiences as reference, designs the proposal on the finance transfer payment of GSSL combining our national conditions, then makes imitative operation and result analysis by using concrete data.

Keywords: GSSL, Finance transfer payment, Proposal designing

1. Introduction

Generally speaking, finance transfer payment is a kind of financial allowance that is given by superior government to the subordinated for special use when there is an indentation on financial capability as the subordinated governments provide public services or to-be public services. According to the requirement of the new mechanism of GSSL in China², the loan interest that the college students should pay is fully paid by finance, and the policy of risk compensation fund need to consider the issue of finance transfer payment. It is meaningful for theoretical research and reality to promote the optimization of the assistance system for poor college students.

2. The theoretical basement for the finance transfer payment on GSSL

Sound institutional arrangement can improve the polarization of the poor and the rich, at least the situation won't get worse. Institutional arrangement is a kind of way to dispose resources. The advantaged group who possesses the power to dispose resources is always inclined to control the flow of resources. Such cases happen not only among different communities in one country, but also among governments on various levels because the power of matter and the one of finance are not united. Speaking from the meaning, the finance transfer payment can be regarded as a technical issue for allotting the financial resources of higher education, and should be considered the humanism concern on the layer of value as well. Actually, it is also a kind of institutional innovation for the sustainable development of higher education in China.

2.1 Finance transfer payment is an effective measure to ease the unbalance between the central and local finance on the issue of student loans

After many changes on policies, GSSL of China has gotten more and more perfect. It can solve the problem of bank distributing the loan basically. However, the central government doesn't make concrete regulation on how to compensate those provinces and cities that indeed have difficulty in paying interest and risk compensation fund for student loans with proper financial policy. There is some vague one that central finance and local one takes the responsibility to pay for the interest and risk compensation fund of student loans in colleges subordinated to the central government and local government respectively. The problem is, many local finances have become the one just for living

since the reform on the system of tax distribution in 1994. As a result, their will and capability to give financial support to the student loans are discounted. In 2007, for example, the amount of the capital paid by finance on various levels for the interest of student loans and risk compensation fund added up to 1.35 billion RMB from academic year of 2006 to 2007. But the fund paid by the central finance for interest was only 95 million RMB and the risk compensation fund 66 million RMB. The other 1.189 billion Yuan was paid by local finance. If there is no corresponding finance transfer payment, the unbalanced situation will probably get worse.

2.2 Finance transfer payment is the operative way for the central government to promote the capitalization of talent current by student loans

According to human capital theory, the human capital effect of the student loans supported by local finance should be restricted locally. The cost of its exterior economic effect should be compensated from the outside. But the policy of replacing compensation by award we execute is a kind of after-compensation and it is much random and easy to be effected by personal activities. If it isn't changed to be more standard finance transfer payment, the enthusiasm of local government to promote student loans will be discounted greatly and enlarge the gap between acquirement and punctuality of loan for poor college students. And then it will be an obstacle for the balanced development of higher education in China. Therefore, applying finance transfer payment in student loans is not only a process of institutional innovation, but also a process of the capitalization of talent flow. To central government, there is no problem of the asymmetry between the investment body and benefit body. On the contrary, as the human capital saving increases, talent flow brings the effective redeployment to resources. This will enable our country obtain more investment benefit than before.

2.3 The central government can intervene the student loans by many means, but all of them have their dead space

For instance, tax is the main means to adjust economy. However, tax lever is hardly useful to student loans because the period from distribution to reimbursement is 10 years. And the policy that student loans were free of business tax many years ago was proved to be a failure. Interest rate is an effective financial lever. While, the social public hasn't acknowledged the fact that Chinese commercial banks are the main bodies in the market effectively yet. Neither interest rate neither makes the self-restriction mechanism to the micro activity bodies of commercial banks come into being nor becomes the lever to lead the supply and need of student loans.

Compared with other ways for adjustment, finance transfer payment is a kind of flexible financial expense. The central government can apply it appropriately and flexibly on the basis of taking both equity and efficiency into consideration. The government invests interest in finance and risk compensation fund to higher education in the form of transfer expense. The investment will be the compensation to the over-flow benefit of student loans and the indirect compensation to the competitive disadvantage of operation banks. This ensures the equally competitive position of micro main bodies and then improves the efficiency of overall financial assistance system.

3. Foreign experiences on finance transfer payment of student loans

From experiences of foreign countries, finance transfer payment is an important part of student loans proposal. It is related to the finance and higher education system of one country, and restricted by capital and finance market as well.

3.1 The United States

The finance transfer payment of student loans in the United States is accomplished by the mode of the top-to-bottom special allowance. The division of the scale of fiscal policy and higher education policy decides that the federal government applies to special appropriation that is allowance to college student loans instead of general transfer payment in common. The special fund federal government gives to states and colleges as student loans must be used for given purpose.

We can make a decision that student loans of the United States benefit from American Federal Financial Support for Education in Family, and the successful development of the plan mainly lies in that the federal government applies finance transfer payment to the student loans skillfully. In 1965, the federal government of the United States started federal loan program for family education. Nevertheless, many commercial banks and other loan organizations that dealt with student loans boycotted the plan till 1970. The chief reason was that the benefit of loan was much lower and the risk was rather greater. After that, federal government enhanced the financial assistance to banks taking responsibility to distribute loans by allowance for interest rate and special allowance, the two means to fulfill finance transfer to encourage commercial banks to distribute Stanford Loan. Allowance for interest rate means that the government paid the interest for students with economic difficulties during the period when they were studying in colleges and that of reimbursement. The federal government even paid special allowance to organizations distributing loans each 3 months to enable them get the lowest return from the market at least and inspire them to distribute loans. The special allowance floated according to the interest rate of 91-day exchequer bill or 3-month commercial note of the United States. The special allowance in 2005 was about 1.34-1.71 percent of loans.

3.2 Canada

The special finance transfer payment of student loans in Canada is fulfilled by two means, that is, equal allowance from finance and allowance for fixed program. The former is to make up for the shortcoming of provincial government on the financial capability to student loans. The latter is to supply the difference of fiscal expense besides the seed capital of student loans for all the provinces. The purpose of equal allowance is to enable the provincial governments provide reasonable and comparable services on student loans for residents on the premise that the interest rate level is not higher than the national average one. It's importance also lies in that the federal government can help the poor students living in underdeveloped provinces enjoy equal service on student loans according to different prosperity of different places and the different financial capability of each provincial government to provide service on student loans.

Generally speaking, finance transfer payment is used on student loans in both the United States and Canada. Though the forms are different, there are two advantages. On the one hand, is that utilizing fiscal capital to stimulate capital of banks can make best use of the capital under the promotion of maximum profit, avoid the situation that the efficiency is low if finance invests program directly. And the hidden risk of finance will be reduced and the effect of promotion. On the other hand, there is objective formula to calculate the transfer payment of student loans. That reduces the distortion of resource disposal caused by individual interference greatly and standardizes the educational fiscal activities of government on each level of our country under the condition of market economy strictly.

4. The proposal designing of finance transfer payment of student loans

Johnstone(2000)pointed out that : higher education should take great effort to build sound system. It can not only make up for the cost effectively but also protect those whose opportunity to study in colleges are threatened by cost sharing.² Therefore, it's necessary for the government to design a kind of scientific and reasonable, standard and transparent proposal for finance transfer payment of student loans on the premise of fixed target to bring the limited fiscal resource into full play effectively.

4.1 The target of the finance transfer payment of student loans

A The target of the finance transfer payment of student loans is to make the capability of each provincial government to give fiscal support to student loans equal and moreover, to promote the equality in higher education effectively. The history of the development of higher education proves that the fairness of student loans won't come true in a country with various capabilities on financial support. The finance transfer payment of student loans is to rectify the unbalance of market with the support of central finance. So all provincial governments are able to provide rather equal opportunity to get the financial assistance for students who are studying in colleges under their control. This will lead to the competition on human capital investment between underdeveloped provinces and developed ones. As a result, the overall efficiency of market to dispose human resources can get increased.

4.2 The main body to allot and main acceptor in the finance transfer payment of student loans

According to the principle C.F.Bastable put forward to divide the management right from expenditure of central and local governments, the central government should be in charge of national public products, while the local governments are responsible for local ones.³ The central government is the representative of the overall interests of the country and the general interests of the society, the local governments are on behalf of the interests of parts of the nation and special interests of some regions. Comparatively speaking, local governments are more unreasonable to great extent. They need a rational central government to harmonize and control them. In order to fulfill the goal of making student loans a national benefit, it is necessary for the central government to coordinate the benefit relationship among governments on different levels often, and control the tendency of local governments pursuing the local benefit excessively. Thus, only the central government can be the main body to allot the finance transfer payment of student loans.

During the process of the finance transfer payment of student loans, when the central government is the main body to distribute, the provincial governments are acceptors. For one thing, in the higher education management system in China now, the central government and provincial governments are on two levels of management and have different responsibilities. The provincial governments are mainly responsible for overall planning and coordination under the instruction of central macroscopic policies. The role of provincial governments in the field of higher education will be strengthened gradually and become the most important management authorities of higher education. At present, most colleges in China are subordinated to provincial government. The provincial government will take over colleges subordinated to central departments. Therefore, though the authority of macro-management on higher education belongs to the central government, the power of self-management of provincial governments is still very strong. For the other thing, provincial finance is the leading part in local finance, and the center of central and local finance. The provincial finance occupies the most proportion in the interest for student loans and compensation fund paid to commercial banks.

4.3 To make sure the mode for finance transfer payment of student loans

To the finance transfer payment of student loans, what kind of mode should the central government use to achieve the

expected goal with least expense? There are three kinds of choices practically: general allowance, symmetrical allowance and special allowance. The conditions for distribution and uses of these modes for transfer payment are various. So, their policy effects are also not the same.

As finance transfer payment is a kind of mechanism to make the right- responsibility and benefit relations among governments harmonious, applying special allowance to transfer payment in student loans is more effective. The reasons lie in the two aspects as follows. One is, special allowance can express the intention of policies of central government on supporting student loans more remarkably, and the effect of allowance is more obviously. The other is, during the process of finance transfer payment of student loans, the central government can decide the amount of transfer payment and how to allot among all provinces around the country. It is more flexible to satisfy the intention of central government to promote student loans.

4.4 Imitative calculation on finance transfer payment of student loans

4.4.1 Hypothetical conditions

Hypothesis 1: The finance transfer payment of student loans is a sort of conditional allowance. Its acceptor is provincial government and it can only be used to pay the interest of student loans and risk compensation shouldered by finance to establish a kind of automatic compensation mechanism for central finance to give support to student loans. Theoretically and practically speaking, the sum of fiscal capital for transfer payment should and can be calculated according to relative indexes, and change year by year.

Hypothesis 2: The finance transfer payment of student loans must take the possibility of central fiscal expenditure into consideration and be in accordance with the request of standard allotment relationship. On the relation of equality and efficiency, we should adhere to the principle of giving priority to equality and giving consideration to efficiency at the same time. However, giving the priority to equality doesn't mean to re-distribute financial resources among regions in the form of robbing the rich to help the poor, but a special allowance confirmed according to the principle of transfer payment. Giving consideration to efficiency is not fixed and unchangeable, but to adjust step by step basing on the situation that how student loans is carried out.

Hypothesis 3: The premise of finance transfer payment of student loans is to give subsidy to those who are lack of fund. That's to say, we assume that the expenses of provincial government for interest and risk compensation on student loans are all reasonable, and the capital indentation of higher education focuses on the capital to support to student loans. The hypothesis confirms to the fact. In the past, there was such item in the fiscal expenditure of provincial government on higher education, and the scale was rather small before 2004.

Hypothesis 4: Each province obeys the rule of new mechanism on student loans strictly to allow commercial banks confirmed by bid to distribute student loans according to 20 percent of local full-time college students. The interest rate of loan is 6.12 percent, the responsibility of colleges to shoulder 50 percent of risk compensation fund is cancelled, the risk compensation fund is 15 percent, the highest and totally borne by provincial finance.

4.4.2 Indexes

Index is key to design finance transfer payment proposal for student loans and related to whether the proposal designing is scientific and reasonable or not, it is also related to the cost of transfer payment because unreasonable indexes may cause the institutional leak of proposal, provincial government will take some dishonest activities in order to obtain the extra income. As a result, the institutional cost will be raised. Considering the obtainable data, the data of fiscal income, expenditure and financial situation of higher education of each province around China in Table 1 are all chosen from data of 2006.

Table 1. The data of fiscal income, expenditure and financial situation of higher education of each province around China

Region	D_i (Yuan/per capita)	G_i (Yuan/per capita)	I_i (per one hundred thousand people)	J_i (one hundred million)	K_i (one hundred million)	$M = J_i/I_i$ (Yuan/ per capita)	$N = K_i/I_i$ (Yuan/ per capita)
Shanghai	6361.43	5179.60	37.85	130.00	65.57	34346	17324
Tibet	5404.07	301.85	1.03	2.28	1.91	22135	18544
Beijing	5046.70	4068.54	45.45	216.63	130.61	47591	28737

Tianjin	3086.84	2023.05	24.52	41.53	23.32	16937	9511
Qinghai	2285.39	450.19	2.61	3.29	2.11	12605	8084
Guangdong	2131.80	1653.91	57.78	128.30	72.57	22282	12560
Zhejiang	1916.18	1509.74	48.41	98.99	38.21	20448	7893
Xinjiang	1905.22	662.98	14.76	17.63	6.47	11944	4383
InnerMongolia	1879.24	582.86	15.76	15.10	7.91	9581	5019
Liaoning	1863.14	1061.88	51.42	75.24	35.79	14632	6960
Ningxia	1823.79	517.76	3.51	4.28	2.61	12194	7436
Jilin	1513.42	569.53	31.95	42.86	22.66	13415	7092
HeiLongjiang	1480.76	652.32	39.22	64.92	24.64	16552	6285
Jiangsu	1414.64	1077.65	85.97	135.55	64.98	15767	7558
Yunnan	1342.21	523.31	17.53	22.53	13.30	12852	7587
Hainan	1299.63	632.80	4.35	5.29	2.68	12160	6161
Fujian	1296.73	873.60	25.74	47.91	23.55	18613	9149
Shanxi	1254.35	561.41	27.30	23.60	10.29	8645	3769
Gansu	1152.52	336.77	17.34	22.39	11.08	12912	6390
Shaanxi	1133.33	480.57	49.90	76.33	39.70	15297	7960
Shandong	1107.55	782.24	76.14	86.52	38.19	11363	5610
Chongqing	1091.31	516.17	24.05	39.26	17.15	16324	7131
Hebei	946.58	496.13	57.55	50.46	18.47	8768	3209
Guangxi	913.32	419.31	22.73	20.60	9.83	9063	4325
Hubei	900.43	432.79	72.15	100.59	43.44	13942	6021
Jiangxi	898.21	395.32	35.86	36.49	10.36	10176	2889
Hunan	861.10	403.20	53.72	65.65	23.22	12220	4322
Guizhou	858.79	321.86	14.94	14.18	6.35	9491	4250
Sichuan	841.72	386.89	51.27	73.70	30.05	14375	5812
Anhui	791.64	344.38	41.00	44.55	21.08	10866	5142
Henan	741.28	349.69	55.72	48.70	22.27	8740	3997
Total	55543.32	28568.30	1107.53	1755.35	840.37	476236	241110

Note: Data resources: The official website of National Bureau of Statistics. D_i =the sum of per capita fiscal expenditure of some province; G_i =the sum of per capita fiscal income of a province; I_i =the amount of college students of a province; J_i =the total sum of education budget for colleges in a province; K_i =national fiscal expenditure of colleges in a province; M_i =per capita national fund of colleges in a province; N_i =per capita national fiscal expenditure of colleges in a province

We can know from Table 1 that N_i is an important index. In addition, the capital for transfer payment of student loans

is fiscal capital, so it can also be regarded as national fiscal expenditure on higher education. As a result, in this article, the author introduces N_i as the basic index of transfer payment of student loans. Those provinces that are below the lowest standard of the basic index will be given transfer payment as special allowance. The more the differences are, the more the allowance is.

4.4.3 The calculation of how much the finance transfer payment of student loans should be paid

As a proposal designing for an institution, it's necessary for us to decide which provincial governments can get the money and how much from the finance transfer payment of student loans. In order to answer the questions, we have to design a basic model and calculate the finance transfer payment of student loans simulative according to the hypothetical conditions. The author carries on the mock calculation by using data of 2007, as Table 2 shows.

Table 2. Calculation on the need for fiscal Interest and risk compensation fund to student loans that each province should shoulder in 2007

Region	Q_i (per 10 thousand people)	R_i (per 10 thousand people)	S_i (per 10 thousand people)	T_i (10 thousand Yuan per unit)	U_i (10 thousand Yuan per unit)	V_i (10 thousand Yuan per unit)	W_i (10 thousand Yuan per unit)	x_i
Beijing	19.47	1.83	3.89	23340	1428.41	3501.00	4929.41	22
Tianjin	24.50	2.66	4.90	29400	1799.28	4410.00	6209.28	18
Hebei	50.57	6.94	10.11	60660	3712.39	9099.00	12811.39	6
Shanxi	27.60	6.54	5.52	33120	2026.94	4698.00	6724.94	16
InnerMongolia	18.25	5.85	3.65	21900	1340.28	3285.00	4625.28	23
Liaoning	44.41	3.14	8.88	53280	3260.74	7992.00	11252.74	8
Jilin	25.88	2.88	5.18	31080	1902.01	4662.00	6564.01	17
HeiLongjiang	32.79	3.37	6.56	39360	2408.83	5904.00	8312.83	13
Shanghai	31.59	1.22	6.32	37920	2320.70	5688.00	8008.70	14
Jiangsu	84.89	3.31	16.98	101880	6235.06	15282.00	21517.06	1
Zhejiang	52.70	3.50	10.54	63240	3870.29	9486.00	13356.29	5
Anhui	47.00	5.65	9.40	56400	3451.68	8460.00	11911.68	7
Fujian	24.01	2.58	4.80	28800	1762.56	4320.00	6082.56	19
Jiangxi	29.09	7.38	5.82	34920	2137.10	5238.00	7375.10	15
Shandong	67.80	4.49	13.56	81360	4979.23	12204.00	17183.23	2
Henan	55.70	6.34	11.14	66840	4090.61	10026.00	14116.61	4
Hubei	42.50	2.48	8.50	51000	3121.20	7650.00	10771.20	9
Hunan	36.05	3.93	7.21	43260	2647.51	6489.00	9136.51	12
Guangdong	60.19	2.17	12.04	72240	4421.09	10836.00	15257.09	3
Guangxi	23.81	6.13	4.76	28560	1747.87	4284.00	6031.87	20
Hainan	5.86	5.53	1.17	7020	429.62	1053.00	1482.62	28
Chongqing	22.50	3.32	4.50	27000	1652.40	4050.00	5702.40	21
Sichuan	39.91	3.37	7.98	47880	2930.26	7182.00	10112.26	10

Guizhou	16.67	6.65	3.33	19980	1222.78	2997.00	4219.78	24
Yunnan	16.24	3.10	3.25	19500	1193.40	2925.00	4118.40	25
Tibet	1.30	1.72	0.26	1560	95.47	234.00	329.47	31
Shaanxi	38.37	2.45	7.67	46020	2816.42	6903.00	9719.42	11
Gansu	15.63	3.58	3.13	18780	1149.34	2817.00	3966.34	26
Qinghai	2.99	3.60	0.60	3600	220.32	540.00	760.32	29
Ningxia	2.60	3.28	0.52	3120	190.94	468.00	658.94	30
Xinjiang	13.95	5.46	2.79	16740	1024.49	2511.00	3535.49	27
Total	974.82	175.20	194.96	1169760	71589.22	175194.0	246783.22	

Note: Q_i =the total number of local full-time college students; R_i =the number of local full-time college students who have financial difficulty; S_i =the maximum of applicants for student loans in local full-time colleges=the total number of local full-time college students \times 20%; T_i =the maximum of student loans to local full-time colleges=the maximum of applicants for student loans in local full-time colleges \times 6000 Yuan for each student; U_i =the sum of fiscal interest the local governments should pay for student loans=the maximum of student loans to local full-time colleges T_i \times interest of loans(6.12%); V_i =the sum of risk compensation the local governments should pay for student loans=the maximum of student loans to local full-time colleges T_i \times 15%; W_i =the sum of fiscal support the local government should pay for student loans= U_i+V_i ; X_i =the order of the sum of fiscal support the local government should pay for student loans W_i .

Firstly, to make sure the lowest standard of finance transfers payment of student loans. Taking N_i as the basic index of finance transfer payment of student loans. According to Table 2, the central government should carry out finance transfer payment of student loans to the finance of those provinces whose N_i/G_i are higher than or equal to 8.44. Secondly, to ascertain the average capability of each provincial finance to give fiscal support to student loans. Cost sharing in higher education has been executed in public colleges in China. But, more than 60 percent of fund of per student in most provincial colleges is paid by local finance. As for fiscal interest and risk compensation fund of student loans, for those provinces that need finance transfer payment of student loans, 60 percent of fiscal interest and risk compensation fund should be paid by central finance and provincial governments are responsible for the rest in order that the central government can shoulder more financial responsibility. Thus, we can have the opinion that the average capability of each provincial finance to give fiscal support to student loans is 40 percent; the breach of 60 percent is paid by finance transfer payment of the central government. Considering that Ningxia, Tsinghai, Gansu, Tibet, Yunnan and Guizhou, the 6 provinces are lack of self-fiscal capability 4 seriously; the central government will pay all the transfer payment. At the end, we can obtain the model for finance transfer payment of student loans by the train of thought as above.

$$C_i = W_i \times 60\%$$

$$\text{Among them: } W = U + V = T \times 6.12\% + V \times 15\%$$

By using the model, we put the data of Table 1 and Table 2 into it. Then we can calculate the amount of finance transfer payment of student loans each province can get. The results are in Table 3.

Table 3. Calculation on Fiscal Transfer Payment of Student Loans Central Government to Part of Provincial Finance in 2007

Region	W_i/W	G_i/G	N_i/G_i	W_i/G_i	$C_i = 10,000$ Yuan per unit)
Beijing	0.62	4.41	7.06	0.38%	
Tianjin	0.78	2.20	4.07	1.31%	
Hebei	1.61	0.54	6.47	8.04%	
Shanxi	0.84	0.61	6.71	5.40%	

InnerMongolia	0.58	0.63	8.61	4.40%	2775.17
Liaoning	1.41	1.15	6.55	8.88%	
Jilin	0.82	0.62	12.45	4.77%	3938.41
Hei Longjiang	1.04	0.71	9.63	5.38%	4987.70
Shanghai	1.07	5.62	3.34	4.02%	
Jiangsu	2.70	1.17	7.01	9.59%	
Zhejiang	1.68	1.64	5.23	5.27%	
Anhui	1.50	0.37	14.93	7.05%	7147.01
Fujian	0.76	0.95	10.47	4.22%	3649.54
Jiangxi	0.93	0.43	8.04	5.69%	
Shandong	2.16	0.85	7.17	13.39%	
Henan	1.77	0.38	11.43	11.00%	8469.97
Hubei	1.35	0.47	13.91	8.59%	6462.72
Hunan	1.14	0.44	10.72	6.86%	5481.906
Guangdong	1.92	1.79	7.59	9.81%	
Guangxi	0.76	0.46	10.31	7.08%	3619.12
Hainan	0.19	0.69	9.74	1.17%	889.572
Chongqing	0.72	0.56	13.82	3.37%	3421.44
Sichuan	1.27	0.42	15.02	9.46%	6067.36
Guizhou	0.53	0.35	13.20	4.58%	4219.78
Yunnan	0.52	0.57	14.49	5.19%	4118.40
Tibet	0.04	0.33	59.66	0.42%	329.47
Shaanxi	1.22	0.52	15.65	9.51%	5831.65
Gansu	0.50	0.37	18.97	4.00%	3966.34
Qinghai	0.10	0.49	17.96	1.41%	760.32
Ningxia	0.08	0.56	14.36	0.45%	658.94
Xinjiang	0.44	0.72	6.61	3.06%	
Total					76794.82

We can see from the result of Table 3 that the central finance should pay 0.7679482 billion Yuan of special allowance for student loans in 2007 according to the proposal for finance transfer payment of student loans we design. Among them, the special allowance to the fiscal interest and risk compensation fund for student loans in Ningxia, Qinghai, Gansu, Tibet, Yunnan and Guizhou 6 provinces was 0.1405325 billion Yuan, the allowance to other provinces in need was 0.6274157 billion Yuan . In these provinces, the transfer payment for student loans in Henan province was the

highest, which was 84.6797 million Yuan. The second highest was Anhui province, which was 71.4701 million Yuan. The least one is Tibetan Autonomous Region, which was 3.2947 million Yuan. The result almost reflects the truth of economic situation, higher education and the development of student loans of each province in China.

5. Conclusion

Somebody call the dilemma on ethic choices of student loans in reality the problem of dirty hands. It means that your hands will get dirty when doing something and it's impossible for you to do nothing. Seeing from all over the world, the government should do something on the matter of student loans. The central government and provincial governments need to continue to give substantial fiscal support to student loans. However, provincial governments may be lack of the capability to solve the problem because of limited resources. It's necessary for the central government to give help to provincial governments by the way of finance transfer payment.

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99% Normal Adjudication and 1% Supernormal Adjudication

----- Posner Paradigm and Construction of Chinese

Scholar-Type Judge Mechanism

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Abstract

Law of individual equity pursues for scholar-type judges who are endowed with radical talents and revolutionary spirits. To trigger out these judges' natural advantages of mastering law theories and reform trends and overcome their shortcomings of ignoring equity of interests in criticizing legal system and seeking for radical reform are the key parts in the modernization of China legal system. "Double excellent law man" Posner's paradigm shows the core of constructing a scholar-type judge mechanism, that is, to cultivate judges who possess characters of being modest, wary, and responsible, gifts of openness, wisdom, and unselfish, super ability of logic analysis, loyalty to rationality, sagacity and courage of grasping reform chances and making supernormal adjudications, and avoid the attitude of "results-oriented adjudication".

Keywords: Scholar-type judge, Posner, Normal adjudication, Supernormal adjudication

Due to the inharmonious conflict-solving mode, to broaden the selection sources of judges, to reform the professional judge appointment system, and to construct a modern scholar-type judge mechanism has gradually become core measures for pushing professionalism of judge. From 2006 to 2007, the Supreme Court of PRC has already taken 14 law professors. "Judges are the ultimate judges who can display social fairness and justness Selecting judges from law professors and layers has an innovative and practical meaning" (Jing Wu, 2007). Scholar-type judges have super understanding ability, sharp observing ability, higher logic analyzing ability, a sense of justness, and a consciousness of innovation. They can grasp the purposes of legislation and spirits of laws precisely and express them with exact and sharp law words, and win wide positive praises from all social fields. "Law learners must take innovation as the duty, whereas fogyism is the tenet of juridical practice" (Elena Kagan & Richard Posner, 2007). To integrate the two different tasks at minimum social oppositions and innovation prices to build up a green path for securing personal rights is an urgent issue needs to be solved right now.

"By other's faults, wise men correct their own." The most respectable American "double excellent law man" (excellent scholar and excellent judge, 2007) ----- the chief judge in the Seventh Court of Appeals for the Federal Circuit, Richard A. Posner is "an outstanding jurist and also one of the most famous judge of appeals in America, who contributes a lot to the judicature" (Steven Shavell, 2007). In China, the scholar-type judge mechanism is still at an initial stage. Looking back the success of Posner, we can further understand the authority's profound thoughts in the field of economic analysis of law and the essential spirits of American Judicature, which can help domestic scholar-type judges to accomplish the roles conversion and integration, constructing and perfecting the new scholar-type judge mechanism beared Chinese features.

1. Posner paradigm = 99% normal adjudication and 1% supernormal adjudication

Posner is a radical scholar who introduces economic principles into law and strongly insists to break through the inner study mode of traditional law. He has suggested in articles to adopt children by auction market in market, to execute the substitution pregnancy contract strictly, to analyze disastrous terrorism risks, and to decompose the State Security Law (Richard A. Posner, 2006). "Change widely-accepted opinions and form an assumption that the diversity of important social phenomena is predictable and finally enrich our knowledge about the world" (Richard A. Posner, 2003). Moreover, he is a doer who profoundly impacts the scientific, rational, and modern progress of American judiciary. He deals with almost all suits with calmness, conservativeness, and abstention and pushes innovation at the minimum social prices. Gradually he is recognized as the super scholar-type judge in America.

1.1 99% normal adjudication

Taking a position in the Federal Court gives Posner amounts of chances to control the reform of branch laws. However, he always follows juridical rules carefully and severely blames the Supreme Court for dealing with the violation of the

constitution willfully. He sharply criticizes the judge Kennedy for his confusion of morals and laws (Anthony Kennedy introduced new moral theory in dealing with Lawrence v. Texas, using privacy to deny Sodomy Laws). Posner's self-restraint, modesty, cautiousness, and tolerance showed in the Jordan v. Duff & Phelps, INC suit are praised highly till now (William A. Klein, J. Mark Ramseyer & Stephen M. Bainbridge, 2006). In this suit, the accuser has been the accused company's security analyst who had the right of buying the company's shares periodically and had signed a "book repurchasing for quit" agreement. Later, because of the tight relation between his wife and moth, he had handed in a resignation to the president Harson and prepared to move in Washington. After a negotiation, he finally had agreed to continue to work till late the end of that year in order to acquire higher bonus (totally 23,000 US dollars). Soon after the accuser quit his job, the accused company declared a merger with Pacific Financial Corporation, which led to a sharp rise of stock price. The shares formerly held by the accuser valued 550,000 US dollars at that time. So he sued the company to the district court (District court thinks that if the purchaser adopts public offerings and the two sides reach an agreement, it is not necessary for the purchaser shouldering the responsibility of releasing important trade information. If the accuser refuses accept the result, it can sue to the Seventh Court of Appeals for the Federal Circuit). Most judges, Easterbrook taking the lead, thinks that the in nature accused company is to dismiss the accuser for the sake of improving managers' interests in merger, therefore its activity has great implicit malice. "The fundamental function of contract law is to prevent party's opportunism thinking, encourage the optimal time choice of economic activity, and guarantee for different self-protective measures." "The accuser is entitled to choose whether stay and hold shares The accused company did not release the important information that may impact the accuser's decision, betraying its duty of releasing information legally." This suit is an excellent change for Posner to practice his theories and assumptions. However, he clearly realizes that "no matter how much we admire personal right, employees' rights security is merely limited" (J. Mark Ramseyer, 2005). To release information legally has a precondition that investors can response to information at will. In this suit, the accused company is entitled to fire the accuser at any moment. It has not right to ask the accuser to manage all merger information independently. "May academic studies can not prove its rationality."

Professional judges should find out the truth of suits and apply appropriate laws with fairness and justness. The brave and radical spirits of Posner as a professor and the modesty and conservation as a judge deserve praises. He analyzes relevant laws in difficult suits with profound, reasonable, and scientific thoughts and precise, careful, and wide deductions. In dealing with amounts of self-insisting suits, he applies the principle of explaining the original intents and makes optimal choices by balancing normal adjudication and supernormal adjudication.

1.2 1% supernormal adjudication

Professional judges with discretion are not only machines obeying precedents but also the main powers in legislation innovation. They can make amendments based on development trend of laws after investigating present conditions thoroughly. Stable and ideal judiciary should tolerate a few of innovative supernormal adjudications. In "Judges' personal opinions", Posner advances the imagination-reconstruction and pragmatic anti-original ideas' explanation mode. The former is to reconstruct the initial legislation goals by rational imagination. The later is to explain the contents of laws flexibly according to practical needs. In the suit of Friedrich suing Chicago government, he details the meaning of flexible explanation in imagination reconstruction. He asks to reconstruct the duty of the court as the parliament made the laws by all means. "Law principles explain legislation intents and law words form legislation goals Judges should realize that "to be clear and exact" as the explanation core is very superficial. American laws are not for all special suits". Then he affirms that in special suits the fees for experts or witnesses paid by winners belong to retaining fees. "Legislation is a result of rational man in pursuing for justness by rational ways"(Henry M. Hart, JR. & Albert M. Sacks, 1994). As judges apply principles of laws, they must take legislators' intents into consideration carefully. "Make the law care about social benefits instead of focusing on making up victims' loses". In the suit of Equal Employment Opportunity Commission suing Sidley Austin LLP, Posner breaks the myth of partner obtaining privilege with complete practical attitude, cleaning up barriers for commercial reform of law offices. "This suit is like a sign for starting a banquet. Many lawyers try to present in the banquet of rights". Lots of unsatisfying partners raise suits. The Federal Supreme Court openly agrees Posner's opinion that "to judge whether a man is an employee or not must consider whether there is an effective control".

As Posner follows precedents and fulfils judge duties, he also emphasizes on explaining adjudications in detail and providing effective, legal, and sufficient reasons for adjudications. In appropriate conditions, he makes innovative adjudications that oppose to the regular academic principles and the opinions of the Federal Supreme Court and drives the law innovation. In dealing with the International Telephone and Telegraph Corporation suit, he cites his competitive management advantage theory to prove the rationality and feasibility of applying the law in crime-happening region. In the Aimster copyright suit, he carefully and limitedly applies the indirect liability theory to prove that the pirate burden should be co-taken by software wholesalers, users, copiers, and retailers, turning the traditional and mechanical burden-taking ways into the chief wrongdoer-taking mode, which is an important first step in the right way. The Federal Supreme Court adopts this idea in the Grokster suit two years later. In dealing with the United Airlines Group suit, he

discerns the trends of contract law and re-explains purchase protest, driving the amendment of this law.

By studying the important and difficult suits judged by Posner in ten years or so, we can easily know his modesty, carefulness, and loyalty to the profession as a judge, his openness, wisdom, justness, and unselfish quality, his profound thoughts, super logic analysis ability, his rationality, and his scholar-type attitude avoiding “result-oriented adjudication”.

2. Construction of scholar-type judge mechanism

An ideal juridical system consists of more normal adjudications that flow juridical principles and precedents and less special adjudications that correct precedents and reform custom based on practical needs and law development trends by integrating advanced theories and exerting judges' discretion. Most suits in juridical field are simple and result in limited adjudication by referencing to law principles and preceding suits. Juridical adjudication aims at solving conflicts quickly, economically, and properly. Stability and predictability are the key for guaranteeing juridical effect, maintaining adjudication authority, and lowering suit costs. “Similar suits result in similar adjudication, which embodies juridical justness. Innovation is the mission of judges and conservation is the life of judges more. Even if compromise cost is slightly lower than suit costs, parties will choose a compromise” (Richard A. Posner, 2008, p96). Adjudication coherence and predictability is the key for guaranteeing juridical authority and reducing suits. Once a conflict happens, parties can predict the adjudication. Then most prefer to a compromise, reducing meaningless suits. However, written rules can not cover all features of unique suits. “The assumption that the court is seeking for truth but nothing is impractical”. Under certain circumstances, strictly following rules and precedents may violate fairness and justness. Therefore, in this kind of suits, on one hand judges can deduct the truth according to proofs available. On the other hand, they should manage the suits at the edge of law principles, listening to both parties' proofs and reasons carefully and making supernormal adjudications that are relatively just and win acceptance of most people based on theories that are in accord with balance of interests and law development.

Scholar-type judges who are accomplished in all laws and understand academic dynamics possess super analysis ability and logic deduction ability. They do far better than other judges in balancing normal adjudications and supernormal adjudications. In China, a group of scholar-type elite judges comes into being gradually. Lots of well-known law professors (For example, the former president of East China University of Political Science and Law and now the vice president of the Supreme People's Court of PRC, Jianming Cao; the former president Nanjing Normal University and now the president of High People's Court of Jiangsu Province, Pixiang Gong; the professor of Zhongnan University of Economics and Law and now the vice president of High People's Court of Hubei Province, Zhongmei Lv, etc.) are not only “jurists who support and practice the rule of law and constitutionalism” but more the final guarders for social justness who “advocate laws instead of authorities or powers”. However, for scholar-type judges, their criticizing views formed in long-term scientific studies and their radical innovation spirits become tremendous barriers for fulfilling judges' duties. Many wise and radical scholars practice their academic arguments by juridical activities by instincts. They fall over themselves for breaking up precedents and amending law principles by words, which seriously impacts the seriousness, authority, and predictability of judicatory, causing amounts of suits.

To construct a modern scholar-type judge mechanism is a key ring for China juridical reform. We should gradually perfect the juridical exam system, selecting elite judges from excellent talents with rich law theories. Speed up the construction of judge training bases and enhance trainings of theoretical knowledge, professional morals, and techniques. Especially, scholar-type judges should train regular judges during their work period. (1) Debase specialty training. Focusing on and thinking latest theories and new laws are the nature of scholar-type judges. Therefore, the collective training in this aspect is unnecessary for them; (2) Enhance quality training. Scholar-type judges usually apply themselves to seeking for the “only right solution” for a conflict and try their best to break the pre-determined framework of laws and precedents. The core of constructing a harmonious modern scholar-type judge mechanism is to cultivate a “conservative and steady” nature. “Responsible and professional judges not only take the true proofs for an adjudication but also keep coherence in all suits”. Judges should notice adjudications' social effects, forming an attitude of keeping coherency in all suits and a tradition of maintaining suit efficiency and juridical authority.

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Some Plants Are More Equal Than Others or Not?

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Abstract

The relationship between Paiwan and their food plants is examined in terms of the functional roles of food processing technologies and traditional ceremonies on the sustainability of Paiwan food plants. A value-added food plant model is developed to predictably understand the persistence of these food plants using ethnobotanical data collected from six Paiwan villages in Taiwan. Three specific case studies of Paiwan food plants are presented as examples of possible outcomes of traditional food plants within the culture in the context of changing cultural and social environments. These case studies demonstrate the potential of food plants to persist in a culture based on traditional practices. The persistence of traditional practices is, in turn, dependent on finding new cultural meanings and economic means to create an environment that is conducive to their continuous existence. Lastly, an understanding of how value is accorded to food plants will allow better decision-making on the conservation of traditional food plants and associated knowledge.

Keywords: Paiwan ethnobotany, Traditional food plants, Traditional practices

1. Introduction

“All animals are equal but some animals are more equal than others.” – George Orwell, *Animal Farm*

Plants have sustained humans and their economic activities for as long as humans are present on this planet Earth. Long before fire was discovered, plant materials were gathered by humans for food (Shuji 2002) as well as medicines (Johns 1990). Among the many plant materials gathered, starch became the main calorie source from plants (Hotta 2002). Plant families such as the Solanaceae (potatoes), Dioscoreaceae (yams), and Araceae (taros) have starch-storing tubers and corms. Starch from seeds is obtained from plant families such as Poaceae (grasses), Polygonaceae (buckwheats), Chenopodiaceae (quinoas) and Amaranthaceae (amaranths). Do these starch-providing food plants then have the same value within a culture? I seek to answer this question by studying the relationships between Paiwan and their traditional food plants by addressing the null hypothesis that Paiwan traditional food plants have the same values in ways that they are utilized. Specifically, the following food plants *Colocasia esculenta* (L.) Schott, *Setaria italica* (L.) P. Beauv. and *Chenopodium* sp. LYH 115 are investigated in the context of a value-added food plant model.

1.1 The Paiwan

The Paiwan is one of the indigenous peoples living in Taiwan. There are about 68,000 Paiwan currently living in Pingtung and Taitung County with many having migrated to cities in the past ten years (Sun 2003). In between Pingtung County and Taitung County is Mount Dawu which is believed by many Paiwan to be their point of origin (Tian 2002). The Paiwan are an ambilineal society headed by a noble chief whose position was inherited (Chiu 1979). Traditionally, the residence of the noble chief is the center of events related to tribal politics, war, religion, and annual celebrations. Each Paiwan tribe is an independent and autonomous unit (Tung 2003). There are basically two classes in their societal organizational structure, namely, the **mamazangilan** (aristocrats) and the **adidan** (commoners). In the past, only the **mamazangilan** had the right to own lands. Commoners, on the other hand, would work on the lands of the aristocrats.

Traditionally, the Paiwan were mountain dwellers. Many of the traditional villages were scattered in the mountains around Pingtung and Taitung Counties. Flat stone slabs were used in the construction of houses in these villages. The Paiwan lived in close proximity to the forests which served as their natural food reserve. Farming and hunting were basically their traditional way of life. Since the Paiwan were living in the mountains, many of their farmlands were established along the slopes of the mountains. In 1895, the Paiwan were systematically moved from their traditional villages in the mountains to the lowlands or areas at the foot of the mountains when the Japanese occupied Taiwan (Tung 2003). As a result, many Paiwan were relocated from their traditional homes in the mountains to a whole new environment in the lowlands.

2. Methods

An ethnobotanical research was conducted in six Paiwan villages in Pingtung County in 2004 (Figure 1). All villages

were in Laiyi, Pingtung County except for Pinghe Village which was located in Taiwu, Pingtung County. Purposive and snowball sampling methods were used to identify 85 informants. Interviews were conducted after informed consent was obtained in Mandarin. Data from free listing of important food plants (n=84) was used to construct an interview guide and used for ethnographic interviews about specific processing techniques of food plants, the use of food plants in ceremonies and rituals, and specific food plant characteristic. Participant observation was conducted to examine daily use of food plants. Herbarium vouchers of traditional Paiwan food plants were collected and deposited in National Pingtung University of Science and Technology Herbarium (PPI, Neipu Township, Pingtung County). Lastly, a value-added food plant model was developed using ethnobotanical data collected from these six Paiwan villages.

3. Results and Discussion

3.1 Value added to Food Plants through Processing, and Incorporation in Ritual Activities

A culture's food plant use pattern is not static, and the cultural value of a food plant is dependent on the benefits derived from it. Different indigenous peoples choose and use plants differently. Their selection and utilization processes become part of their culture (Prance 2005). They add value to their food plants using various processing technologies. In view of this changing value of food plants with technologies and time, a general model illustrating the relationship between increasing value of food plants and increasing investment of time in processing and using them is developed to predictably understand the persistence of food plants in a culture.

Figure 2 shows the general progression of plants into food and subsequent incorporation into rituals. The Y-axis represents value while the X-axis represents time. Starting at the bottom left of the graph, as a plant undergoes the processing step and is made into food, its value increases. In addition, its value will further increase if the plant or the food made from it is used in rituals or ceremonies. This simplified model depicts the added-value of traditional food plants and related technologies in relation to cultural values. It demonstrates the potential of food plants to persist in a culture based on food and ritual uses. Unprocessed plants have lower values than when they have been processed into food. Consequently, plants with high values will persist and vice versa. Here I present three specific case studies of Paiwan food plants to highlight the status of these traditional Paiwan food plants in Paiwan culture across time.

3.2 Case Study 1: Taro

C. esculenta or taro is an ancient crop with a long history (Martin 2004). As with many other cultures in the Pacific, **vasa** (taro) is the main staple for the Paiwan. The Paiwan refer to the main taro corm as **buku** (mother corm) and use it for the propagation of new taro. Only the **butil**, which is the young corm or sucker that branches out from the mother corm is consumed.

One very common method of cooking taro is to steam it. In addition, the Paiwan also dehydrate and roast taro to make **aradj** (roasted taro). The whole process of making **aradj** is very laborious. It is not uncommon for one roasting session to last continuously for several days depending on the amount of taro. In addition, taro is roasted on specially built stone ovens called **leut** (stone oven for roasting taro). Experience and skills are needed to make roasted taro using the traditional method. Currently, few Paiwan are making **aradj** for a living now.

In Figure 3, the value of taro increases as it is being processed and made into food. Due to the relatively complex way of roasting taro, **aradj** has a higher value than steamed taro. The knowledge associated with making **aradj** is an important aspect of Paiwan culture. Unlike steamed taro which can be easily cooked by anyone, **aradj** requires a set of unique cooking methods and facility. The practical knowledge on making **aradj** is currently retained by only a few older individuals per village who still make this traditional food for a living, and hence, keep this traditional alive. While this is encouraging, the reality is that the Paiwan generally harvest taro at the end of the year. Anyone wishing to roast taro for a living can only do it for a relatively short period of time at the beginning of the year after the taro harvest period. The cyclic production and demand for this traditional food may not be attractive enough to encourage more Paiwan to perpetuate this traditional skill. Moreover, younger Paiwan who already have work commitments in the cities find it difficult to devote time to learn this traditional process. As fewer individuals get involved in making **aradj**, this traditional food and its corresponding cooking method will inevitably fall into the danger of becoming a piece of static cultural information. The value of taro in the culture may decrease in the future if no one decides to make **aradj** anymore. Nevertheless, for the time being, taro will continue to persist as a traditional food plant because steamed taro is still regularly consumed.

3.3 Case Study 2: Millet

S. italic or millet, another traditional staple of the Paiwan, is sown some time in May just before the rain comes by broadcasting the seeds in pure stands. The spikes of the millets are cut off during harvest in August. The Paiwan will bundle the millet and let them dry under the sun. The millets are husked only when they are being used for food.

In Figure 4, the value of **vaqu** (millet) increases as it is being processed and made into **cinavu** which is a traditional Paiwan food. **Cinavu** is still commonly prepared by many Paiwan and is often eaten during festive occasions. Hence,

the knowledge base is not restricted to only a few individuals. The importance of millet in Paiwan culture is further demonstrated by the fact that the Paiwan celebrate the final harvest of millet by holding **masalut** (post-harvest celebration) annually. By doing this, the value of millet further increases.

Millet is a traditional food plant that is just persisting in the culture. Being one of the chief ingredients of **cinavu**, the availability of millet is important for the perpetuation of this traditional food. Unfortunately, millet farming is on the decline as many Paiwan farmers have given up on millet farming. The implication is that the supply of millet will decline and this, in turn, affects the availability of **cinavu**. I interviewed Paiwan farmers regarding the reason for the decline in millet farming. The answer that I consistently got was that millet farming was a very tiring job. Moreover, birds were constantly feeding on the seeds of millet which made the work of farming millet even less appealing. Many farmers simply gave up on farming millet as they found that they would be economically better off to simply fallow their land since Taiwan's Council of Agriculture were actually compensating farmers financially to do just that. If this trend continues, the annual post-harvest celebration may eventually lose its meaning when there is no more millet left to harvest.

3.4 Case Study 3: **Djulis**

Djulis (*Chenopodium* sp.) was a traditional food plant that seemed to be limited to the Paiwan living in north-eastern part of Pingtung County. I did not find anyone growing **djulis** in my visits to other Paiwan villages outside the north-eastern part of the county. Hence, the subsequent discussion also includes interviews with eight Paiwan living in Majia and Taiwau Townships that are in the north-eastern part of Pingtung County. These eight informants had planted **djulis** and were able to describe the traditional use of **djulis** as food.

Djulis was traditionally grown for its seeds which were consumed in the same way as other cereal grains. To harvest the plant, the infructescence were first sorted out, cut and laid out to dry under the sun. After drying, the infructescence were threshed with wooden mortar and pestle. Subsequently, the seeds were separated from the "husks" with a sieve and washed with water several times to remove saponins. This was a crucial processing step as consuming unwashed seeds would lead to some form of intoxication. Incidentally, another traditional use of the **djulis** was as a fermenting agent in the making of **vinawa** (millet beer). According to custom, **vinawa** prepared using **djulis** was only consumed during festive seasons (Hsu 1990).

In Figure 5, the value of **djulis** increases as it is being processed and used as food and a fermenting agent. Although no longer a current major food crop among the Paiwan and no longer grown as a primary crop plant in farms, **djulis** is still eaten by some older Paiwan in the villages. However, the use of **djulis** as a fermenting agent is no longer observed, and specific knowledge regarding this particular traditional use is lacking. Fortunately, a nation-wide effort to promote indigenous cultures (Sun 2003) has resulted in many Paiwan rediscovering **djulis** as they learn about their cultural past from their elders. To the Paiwan, **djulis** is reclaiming its status as a plant with a deep cultural value. Some Paiwan are even experimenting with developing modern Paiwan cuisine which includes **cinavu** made with **djulis** instead of millet, **djulis**-flavored desserts, **djulis**-flavored soups and even **djulis**-flavored coffee. Hence, **djulis** can be considered as a food plant that is experiencing a revival due to changing social and cultural landscapes. It is an example of a traditional food plant that is being revived by the Paiwan.

4. Conclusion

Taro is still being planted, and the technologies associated with it are still present. This is a traditional food plant that is still persisting within the culture. On the other hand, millet is seldom being planted now even though the technology to make food from it is present, and the annual post-harvest festival is still being celebrated in Paiwan villages. However, the impending scarcity of millet makes this food plant to be just persisting within the culture. **Djulis** is a food plant that is experiencing a revival but traditional knowledge about the plant is lacking. Nevertheless, new knowledge is being gained as the Paiwan are beginning to experiment with the plant for food.

Figure 6 summarizes the persistence of taro, millet and **djulis** in Paiwan culture across time. The Ideal Persistence Progression Curve (IPPC) is a hypothetical path that a plant will ideally take as it gets processed and used as food or in rituals. Taro's persistence progression curve will be similar to IPCC as it is still being planted and utilized. Millet's value, as indicated by its persistence progression curve, is falling as the Paiwan have gradually stopped planting it. **Djulis** is being revived and its persistence progressing curve shows a large plunge before climbing up again.

The persistence of traditional food plants in a culture is influenced by traditional practices that are associated with them. The persistence of these traditional practices is, in turn, dependent on the ever-changing lifestyle of a culture. As traditional practices are losing their relevance in today's lifestyle and no longer being observed, traditional knowledge of associated food plants will also be forgotten. One way to ensure that traditional plant knowledge is not lost is to find alternative meanings for the plants to ensure that the plant values remain high within the culture. This will help plants to persist within a culture, and consequently, the retention of traditional knowledge associated with it.

From the above discussion, Paiwan traditional food plants do not have the same values within a culture. Some plants are

more equal than others at any one point in time depending on the current needs and lifestyle of the culture in question. In addition, a food plant can have more than one use within a culture. Although not discussed in this paper, I am currently following up on this research to include multiple-use factor of plants in our model from a non-linear perspective which will provide us with a better idea on the persistence path of food plants in a culture.

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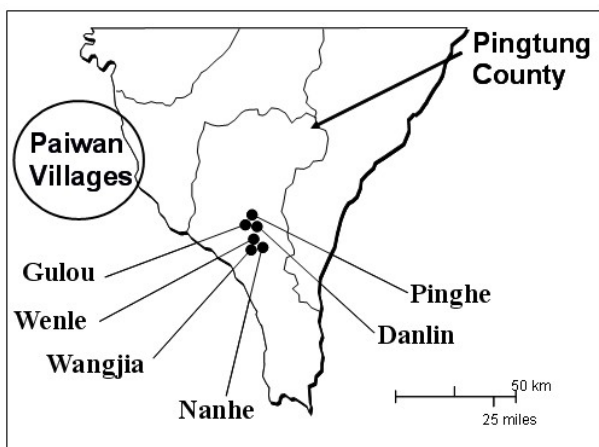


Figure 1. Six Paiwan villages in Pingtung County, Taiwan that were included in this study.

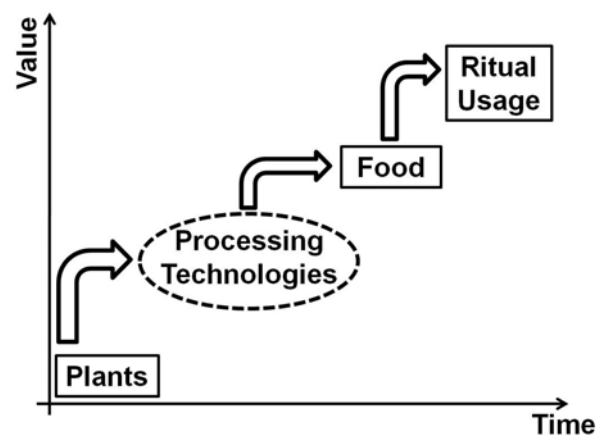


Figure 2. Positive relationship between
1) investment of time and effort and
2) value of the product resulting from this investment.

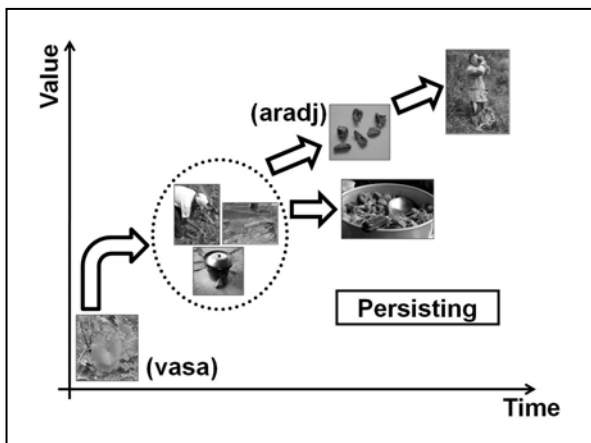


Figure 3. An “added-value of food plants” model illustrating the transformation of taro into food. **Aradj**, due to its light-weight, is a food favored by hunters.

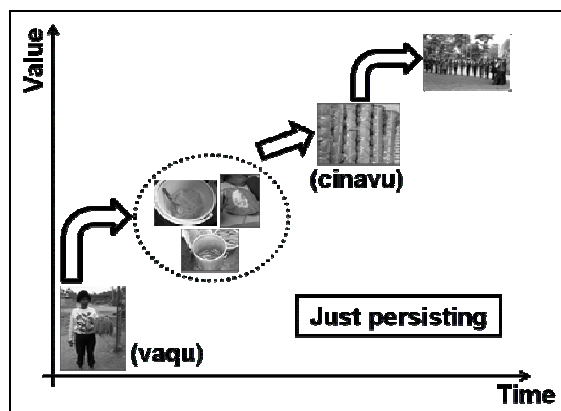


Figure 4. An “added-value of food plants” model illustrating the transformation of millet into food.

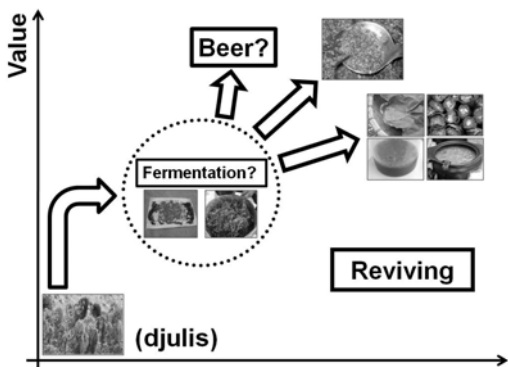


Figure 5. An “added-value of food plants” model illustrating the transformation of **djulis** into food.

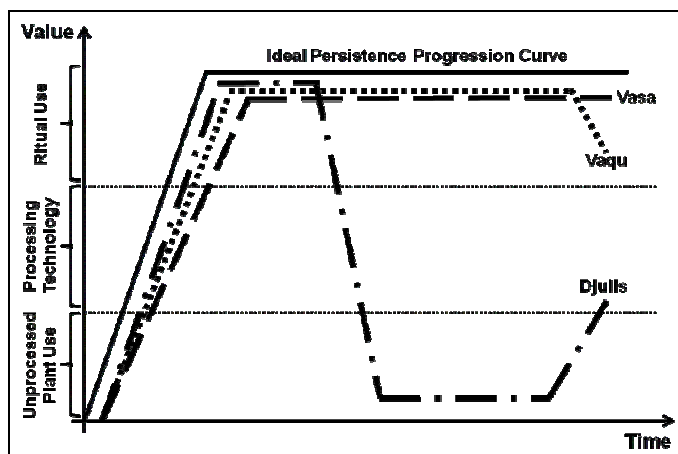


Figure 6. Hypothetical Ideal Persistence Progression Curve and the Persistence Progression Curves of **vasa**, **vaqu**, and **djulis**.



Application of Clothing Accessories in Clothing Display Design

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Abstract

Clothing accessories also known as clothing decoration, such as hats, scarves, shoes and socks, etc. It directly affects the show results of clothing display design. This paper analyzes the application of clothing accessories in clothing display design from creating atmosphere of dress and disseminating brand culture, tries to raise the level of applying clothing accessories to clothing display design.

Keywords: Clothing design display, Clothing accessories, Use

1. Clothing accessories and clothing display design

1.1 Overview of Clothing accessories and clothing display design

Clothing accessories, also known as clothing decoration, are all accessories to complete dress state except garment, including ornaments in head, neck, chest, waist, wrist, fingers and feet.(1,Liu Xiaogang ,2005,P.50)Clothing accessories are closely related to the development of human society. According to archaeological discoveries, clothing accessories appear as early as clothing. It is divided into two major categories: practical accessories, decorative accessories. No matter what the era is, it seems that people prefer clothing accessories to clothing. Clothing accessories is indispensable when matching clothing, with the contents of clothing, especially in the modern life. With the continuous development of the fashion industry, the practicability and ornamental characteristic of clothing accessories are gradually merging into each other, their boundaries are becoming blurred increasingly.

Today, Fashion display design has become professional disciplines by the combination of visual art, space science and marketing strategy.(2, Qu Wenbo,1999,P.76).It is a comprehensive multi-discipline of marketing, aesthetic, consumer psychology and visual arts. It is explained in English: Display, Visual Presentation or Visual Merchandising Presentation. As an integral part of fashion design and planning, clothing display design is an action of display around clothing and brand. In the process of clothing display design, designers decorate and arrange products with showcase, shelf, prop, lighting, poster and other forms to display overall dress style, enhance brand image, communicate cultural connotation.

1.2 Accessories component in the display clothing goods

1.2.1 Head Accessories

Head accessories refer to the accessories used in thehead, such as hair card, hair hoop, hat, glasses and earrings. The most representative one is hat. Wide varieties of hats have different shapes and textures which have practical and decorative function. According to styles of clothing matching, it can be divided into various hats like leisure hat, fashion hat and topper.

1.2.2 Upper Body Accessories

This clothing accessories wearing in the upper part of the body are collectively referred to as “upper body accessories”. These varieties of accessories include the most things, such as scarf, shawl, necklace, brooch, gloves, bracelet and finger decoration. The part of the body above the chest is vision center, so these upper body accessories have strong sense of decoration. In particular, it should be pointed out that bag, classified as upper body accessories, is used most extensive in clothing display design, which has the most practicality and decorative characteristic.

1.2.3 Lower Body Accessories

Corresponding to upper body accessories, the lower body accessories mainly include belt, shoes and socks. These parts of accessories have more practicality, which are not only looked beautiful, but also felt comfortable. They reflect the integrity of clothing very well.

1.3 The purpose of use of accessories in clothing display design

Through shaping, coloring and ornamenting, clothing accessories compensate for the lack of clothing, use their unique artistic language to create different atmosphere of life dress and meet psychological needs of different people, and

become a very important decorative component in clothing display design.

The application of clothing accessories in clothing displayed design can achieve the following results: (1) highlighting the integrity of clothing to improve the grade and quality of clothing. It can sum up and upgrade clothing design ploy from the single and limited state in the past. Through the distinctiveness of style and the integrity of matching, the beauty of clothing style obtains further distillation and minimizes the homogenization of products.(2) Guiding consumption trends, meeting various needs. Because of sheep mentality, consumers want to avoid too duplicate and outdated in the circumstances that roughly the same style can be ensured. Therefore, clothing accessories provide more choice of space for them. This not only meets the needs of different consumers for highlighting personality, but also leads the fashion trend of consumption.(3) Enhancing the visual marketing, communicating brand concept. The unified, coordinated and integrated image of apparel products is not only conducive to the overall layout of goods, but also to provide a good shopping environment for consumers. It conveys the integrated image of brand, at the same time completes the "AIAD" (Attention, Interest, Desire and Action) visual marketing. (3, Ma Dali, 2006, P109).Achieving economic efficiency eventually.

2. Application of clothing accessories in clothing display design

2.1 Create an atmosphere of dressing

Chanel (CoCo Chanel), fashion design master, believes that:" Accessories are the tool not for maintaining value, but for forming the best means of visual effects when matching fashion."(4, Wang Shouzhi, 2002, P.69).

Because of the dependent and subordinate characteristics in clothing design, clothing accessories echo the popular theme of clothing display to form a unified fascinating visual effect when they are designed in shape, color and material aspects.

For clothing accessories, color should be used moderately, and then certain ratios will bring a holistic beauty.(5, Jia Jingsheng,1999,P.256).It could have an adverse effect if the color of clothing accessories were to be over-exaggerated or waked excessively. The three principles of color, based on similar color, analog color and contrast color, cause the relationship of contrast, harmony, stress and echo formed between accessories and clothing, and add the sense of richness and hierarchy for clothing display design.

In the aspect of shaping, matching of clothing accessories should follow the principle of composition of point, line and surface to form the formal beauty which is orderly, rhythmical, focused and coordinated. Guess what effect would be if skilful occupational apparel matched a pair of round toe shoes? The answer may be that the unified and harmonious formal beauty be ruined by the two different style of shaping.

Accessories' material generally refers to the integrative sense of seeing and feeling formed by the character, texture, color and luster of raw materials. Leather feels stiff which shows capable and spiffy; silk feels smooth which shows elegant and feminine; plush feels soft which shows easeful and cozy. Women's femininity would be displayed thoroughly if a soft plush coat matched a smooth scarf.

In clothing display design, accessories are visual information symbols which can not be ignored, play improved and reinforced role in highlighting display theme. Clothing accessories should match clothing coordinately and orderly based on the following aspects of apparel goods: pattern, color, style, quality and price. The themes of display design are different; even then the duplicate accessories, like shoes, socks, hat, bag, belt, can be chosen in matching women's wear; men's wear also can use the similar accessories, including shirt, tie and belt, to match different types of suit as complete set of product series for displaying. Consumers prefer imagining the overall effect of dress, so integrated matching makes consumer more intuitive and effective to contrast and choose, then related sale become truth. The aspects that clothing fall short of in display design, clothing accessories can make up defect and shortage; further, they can play a role in strengthening dress effect. But when using accessories to create dress styles, designers do not blindly pursue the expressive force of pure art and ignore the flexibility and fashion of business performance.

2.2 Spread of brand culture

As one of the means of enterprise marketing, clothing accessories could not match clothing simply in display design; as a result, the inherent requirements of brand culture were ignored. It is contrary to the final object that "display is not only selling goods, but also making the brand enjoys popular support". Generally speaking, the selection and application of accessories should serve brand culture absolutely in display. In color, shape and styles, CHANEL's accessories, like shoes, bags, glasses, ornaments, and DIOR's, like underwear, perfume, cosmetics, jewelry, fur, gloves, socks, formed the uniform of visual effect with apparel products. The uniform of visual effect helped clothing achieve the integrity of matching, at the same time showed brand features and spread brand culture.

The well-known clothing brands have being established by long usage to show their culture connotation. JUDGER, for instance, is known for its elegant suits, just like it's advertising:" Dressing solemnly, living auspiciously". If casual hats and shoes were appeared in display design, which would mean that JUDGER is conveying the information: there are

casual wear in its series of products. Therefore, the features of casual display will be considered either. The major apparel products of METERSBONWE are sports wear and casual wear. Using sun hat, sports cuff, climbing shoes and traveling bag in display design, the happy scenario of young people in summer travel is formed, which vividly provide an immersive space of imagination for consumers. Like the black and white of ADIDAS, the pink of FAIRYFAIR, accessories can match based on the color of brand image. The application of accessories should not be realistic, but be notional, which should convey the information that its brand culture will be a fashion guide in the future to lead consumers to long for the fashion and pursue it.

In short, the application of clothing accessories makes clothing display design more meaningful, makes brand more popular, makes consumer more loyal.

3. Concluding Remark

To sum up, clothing and accessories are interdependence of the two aspects, they are independent but interactive. The application of accessories in clothing display design is not immutable, but changeable. It should constantly bring freshness to consumers. In clothing display design, the appropriate match of accessories is not only create the image of dress code belong to different styles, but also increase the value-added of apparel products to lead clothing enterprise out of its predicament of products homogenization and enhance the market competitiveness; there by, through artistic displaying, it makes apparel products realize commercial value.

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Dynamic Design of Compensation System Based on Diversified Project Features –Taking the Project Manager as an Example

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Abstract

With the development and extensive application of project team work under the matrix organizational structure, the traditional compensation system based on the job-evaluation method has been greatly challenged. The job-evaluation method is designed to compliment functional or divisional structure in a static or at least stationary context, which is often ineffective and even counterproductive in the quick changing environments.

This paper is an attempt to design a dynamic compensation model by setting a “project adjusting index” based on the key diversified project features. The objective is to primarily rationalize the firm’s pay structure, and to make project employee could be paid according to their contributions to the organization on the norm of equity.

Keywords: Dynamic compensation, Diversified project features, Project manager

1. Introduction

This Project team working format under matrix organization has been widely adopted, especially by those companies in engineering construction industry, IT industry or consultancy industry providing high-tech and intelligence service.

Even though researchers have extensively investigated the relation between compensation, incentives and motivation, most of the theoretical literature has considered these issues in a static or at least stationary context. In fact, the actual relation between compensation, incentives and performance evolves dynamically in non-stationary world, especially for today when teams have become a popular way to organize business (Cheryl Zobel, 1999). In China, many companies have just newly changed into the matrix structure. However, many of them still adopt the traditional, job-evaluation compensation systems designed in the functional structure. The salary of project managers and the employees are almost the same in the traditional job-based compensation system, no matter how and what they contribute in the different projects, which greatly influence the motive of the project team workers and the project managers.

What makes an effective project team compensation system? How to revise the static compensation system to adapt to the changing projects environment, how to pay dynamically for the project manager? In this paper we will discuss.

2. What is dynamic compensation?

2.1 Stationary Compensation: Job evaluation-based Compensation System

Job evaluation is a formal process by which the relative worth of various jobs in the organization is determined for pay purposes. A systematic comparison of worth of one job with that of another job eventually results in the creation of a wage or salary hierarchy unique to the organization. Essentially, job evaluation relates the amount of pay for each job to the extent to which that job contributes to organizational effectiveness. (John M. Ivancevich, 1998:331) There are four most frequently used methods of job evaluation, they are job ranking, classification, point system and factor comparison. The greatest number of job evaluation plan use the point system (Paula England & Kilbourne, 1991) Point system is also called Hay-point System. Edward Hay and other associates of the Hay Group, developed the Guide Chart-Profile

Method of Job Evaluation in the early 1950's. (Craig Skenes and Brian H. Kleiner, 2003)

The employee compensation is closely related with the job, or job analysis and evaluation result under hay points systems. Hay points methods begins with a systematic analysis of the underlying attributes and demands of jobs. Each of the jobs studied is characterized in terms of various common dimensions and distinctions, such as the types and complexity of knowledge required, number of employee supervised, amount of capital overseen, type and unpleasantness of working conditions, and so on. These measures then used to put all the jobs on a one-dimensional scale of "value". When the measures is scaled and then subjectively determined weights are used to compute a weighted average, where the weights reflect what is important to the firm. For example, a firm whose culture emphasizes HRM might choose to weight heavily the number of employees supervised. The result is an abstract measure of each job's value to the firm. The firm then can determine an average wage it wishes to pay and the amount of dispersion in wages it wishes to have, assigning wages to specific jobs based on this value-to-the-firm measure. (Baron& Kreps:285)

2.2 Dynamic compensation: Revised Hay-Point System

Hay system appears to employees to be an objective method for finding appropriate compensation levels, thereby lending legitimacy to the firm's wage structure and heightening perceptions of procedural and distributive justice. (Baron& Kreps,:285) However, this mode of compensation is quite suitable for those enterprises with stable operation environment, clear organization structure, many divisions of departments or jobs and the relatively stationary or fixed job.

The definition of dynamic compensation system is to make the compensation system change with the employee's performance and market factors. In this article, we define dynamic compensation system in the project context, which means that the compensation should respond to the diversified features or environment of projects, so that the personal contributions in different projects could be reflected.

3. Why dynamic compensation?

3.1 Demand of matrix organizational structure

Compensation system is closely linked with organizational structure (Cheryl Zobal, 1999). One of the most important elements of an ideal compensation system is that it fit with the overall organizational structure or design (Gross, 1995) .

With the development of globalization, matrix structure have been widely adopted by many organizations, especially those engineering construction industry, IT industry or consultancy companies providing high-tech and intelligence service. The uniqueness of matrix arrangement lies in its simultaneous realization of the advantages of functional structure and divisional structure and its combination of quick responsiveness to customers and specialized knowledge. Under matrix structure, temporary teams have become a popular way to organize business and carry out project because they enable companies to be responsive to the ever changing business arena.

Majchrzak and Qianwei (1996) pointed out that compensation was a key ingredient in cultivating a collaborative work environment. Unfortunately, many companies with newly-changed matrix structure don't support and reinforce the team concept through the compensation system, they still adopt the traditional, individually-based compensation systems designed to compliment functional or divisional structure, which are often ineffective and even counterproductive in collaborate, team-based work environments. Gross (1995) has conducted a survey and found that organizations surveyed were very pleased with their experiences with teams, but only 40 percent were pleased with their corresponding compensation systems. In another 1995 survey of 300 large companies, Lubin found only 9 percent to be very positive with respect to their team-based compensation plans (Shaw and Schneier, 1995).

3.2 Request of diversified features of projects

Project features are diversified, not only in the basic element such as resources, time schedule, budget, requirement and scope, but also in the ever-changing environmental input factors such as legal, social, political, economical and technological. The diversification of project appeals for project members' different contribution to the project. Here comes the challenge. Most of the present job evaluation-based compensation system is not able to respond to the different personal contribution, in other words, the personal effort due to diversified features of projects can't be reflected in their compensation. Even though many companies have already take many factors into consideration, such as the competitive salary level and structure in the local market, or linkage between the performance with compensation, etc., many project managers still complain that the compensation for them is unequal. For instance, in different construction project, the base salary for project managers is the same in spite of the complexity, profit, time-duration, technological difficulty, social environment and different requirement of contractor. In this case, project manager would rather select the easy and small-sized one because in the project difficult to be finished, their performance-linked bonus will be influenced.

3.3 Need of permanent change of job

Matrix structure determines the frequent disorganization and reorganization of team according to different projects. In other words, the temporariness of team project under matrix structure leads to the permanent changing nature of job.

This means, first, some certain job will only exist in the specific time duration of the certain project. As long as the project is finished, the project team members will be dispersed and enter into the status of waiting for another reunion whenever needed. Second, when another project starts, new job will also occur. There are two kinds of situation for this new job, one is that the new job maybe a totally new one, the other is that it is the job which has the same title with former job but quite different content. Of course, the perfect resolution for these new jobs is to redo the job analysis, rewrite the job description, re-evaluate the job, and redesign the compensation according to the result, so as to satisfy the employees. However, this is infeasible in practice for two reasons. First, By carrying out the above-mentioned procedures each time whenever a new project occurs, not only is unrealistic, but also the management cost will be increased; Second, job description and job specification will be almost the same for the job with the same title, the job value due to the different project features still can't be reflected in the job analysis.

4. How to design dynamic compensation system?

Considering that the real job for each employee varies with projects in matrix structure, the resolution for reflecting employee's different contribution to different projects in the compensation system is to find out a way to make the compensation adjust to the changing environment of projects, whereas without increasing the management cost.

4.1 Internal features of projects

Each project has its own features; the differences basically fall into four basic elements: resources, time, money, and most importantly, scope.

Firstly, the project scope includes project size, project goals and project requirements. The project scope means what the project is supposed to accomplish and the budget (of time, money and resources) needed to achieve these objectives. It is absolutely important that any change to the scope of the project have a corresponding change in budget, either time or resources.

Secondly, time include task durations, schedule and critical path. Schedule is to make clear the tasks, predecessors and successors. The difficulty in managing schedule lies in that resources and time are seldom enough to complete the tasks sequentially. With regard to critical Path, it means that some tasks have a little flexibility in their required start and finish date. This is called float. Other tasks have no flexibility, zero float. If a line through all the tasks with zero float is called the critical path.

Thirdly, resources include people, equipment and material needed to complete the project. Managing the people resources means having the right people, with the right skills or capacity to do the right job, in the right quantity at the right time. It also includes motivating them in the project. Moreover, the project manager has to make sure that the right equipment in the right place at the right time and that it has the supplies it needs to operate properly.

Fourthly, money include cost, profit, contingency such as weather influences etc..

4.2 The "Project Adjusting Index"

Table 1. Project adjusting index

			Weight (%)
Scope	project size	The bigger the bidding, the higher the index	.20
	goal	More important to company, much higher the index.	10
	requirements	More difficult to achieve, the much higher index. Technology difficulty Difficulty degree or flexibility of critical path: to finish project within time and budget or too long to carry out Other special requirement of customer, difficulty to achieve, such as quality, safety etc..	Total 30 10 10 10
Money	Profit making		20
	Cost control		

			(depends)
Resources	people	Project employees capability, stability, effort; (the worse, the more difficulty)	10
	equipment	Equipment sufficiency at right time	
	material	Material sufficiency at right time	
Environment	natural	Difficulty degree brought by natural environmental conditions	5
	Social	Difficulty brought by social and economic environment, such as coordination with local government, or related authorities	5

Table 2. Detailed index

Technology		Flexibility of critical path	
	index		index
Common	1.0	Fixed very much	1.3
A little difficulty	1.1	Common	1.2
Moderate difficulty	1.3	Less fixed	1.1
Very difficult	1.5	loose	1.0
People availability, capability and effort		Project size	
	index		index
Worse	0.7	Very big	1.5
bad	0.8	big	1.4
Normal	1.0	medium	1.3
		small	1.1
		Very small	1.0

4.3 Steps of revised Hay-system

“Project Adjusting Index” is to make the compensation dynamically matching to project team working format in the matrix structure. Taking the project manager as an example:

There are four steps:

First step: To work out the job description for one standardized project manager in each department or in each category of major. That is to say, it can be a 3G mobile phone research & development project manager or the project manager of undersea cable research team;

Second step: To evaluate the job value by Hay-point systems, and the job scale and its matching compensation level will be determined.

Third step: To use Delphi method to determine the weight of each factor in “project adjusting index” (PAI) which will reflect the different features of the project, including the detailed factor index such as technological difficulty, the difficulty of critical path, etc..

The formula is

$$PAI = \text{Weight } 1 * \text{size} + \text{Weight } 2 * \text{goal} + \text{Weight } 3 * \text{critical path} + \text{Weight } 4 * \text{technological difficulty} + \text{Weight } 5 * \text{natural environment} + \dots + \text{Weight } n * \text{certain factor} \tag{1}$$

Fourth step: By multiply the “project adjusting index” to compensation of the standardized project manager, we can get the real compensation of different project manager.

5. Conclusion

Designing any ideal compensation system is ultimately about strategic thinking (Lawler, 1990, 1995; Schuster and Zingheim, 1992). Being able to change according to the different requirement of diversified features of project or environment, the above mentioned PAI could be applied into different industry where project team is the working format, which will help the organizations struggling with how to compensate their project team workers.

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Communal Living Environment in Low Cost Housing Development in Malaysia

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Abstract

This paper has attempted to interpret the nature of communal living environment in low cost housing development. A quality communal living environment contributes towards good society which practices noble values. It is within the communal living environment that interaction takes place, families are nurtured, noble social values are developed and services are shared. Low cost housing constitute major element of the Malaysian national housing programmes. These programmes are to be implemented together with the provision of social services aimed at improving the quality of life of the community. The study's findings showed that the concept of low cost housing development in Shah Alam was found to be based on noble universal rules as stated in the Total Planning and Development Doctrine which provides communal living environment.

Keywords: Communal living environment, Low cost housing, Community

1. Introduction

In 1997, The Town and Country Planning Department, Peninsular Malaysia introduced a guideline called The Total Planning and Development Guidelines (TPDG) with the objective to create a balance between physical and environmental development, and human development. The primary philosophy is to integrate the spiritual aspects in to planning and to make man as the focus of development. The doctrine has given rise to new emphasis on planning practice and it sets out guidelines in physical planning terms. The main thrust of the TPDG is the integration of spiritual values in urban planning and development. The spiritual values is the result of the combination of three relationships which forms the basis of any society, that is: Man and His Creator, Man and Man, and Man and Environment. The physical planning was to ensure that it is environmental-friendly as well as to provide high quality urban living for the future residents (Government of Malaysia: 2001).

The relationship between man and man means the focus of every development effort is on the development of man and society. Man's need and wants constantly change according to time. The effective planning will always give attention to fulfilling the various needs of every member of society. Even so, no man is an island and life means the wholeness of communal living. Therefore, urban and regional planning and development should be able to create a communal living environment that is complete, capable of fostering the spirit of neighbourliness and brotherhood as well as encouraging interaction among all levels of society. For instance, the establishment of communal clusters and neighbourhood units which are complete and mutually interacting is consistent with the concept of caring society. Such efforts will ensure that the living environment will be able to function well through daily movements of its inhabitants that are effective and meaningful (Government of Malaysia: 2001).

This planning approach provides communal living centres (neighbourhood centres) which can act as residential centres providing living needs for residents. Communal living in low cost housing would be a situation in which the residents knowingly and willingly share the living environment and facilities. Communal living provides a good way to serve each other in a variety of ways. Public participation among the residents in communal life would make an impact on the community. Housing represents the foundation of creating a happy family and a communal living environment

Based on The Total Planning and Development Guidelines human development is the development of man and his environment, physical and socio-culture with the objective of among others, creating people with the following characteristics:

A. A society of excellence with a sense of personal quality, having knowledge and expertise and capable of facing current and future challenges;

B. A population with a strong and stable family institution and a strong spirit of neighbourliness, in harmony and cooperative towards ensuring an ethical and moral society.

Malaysia has a very definitive housing policy with set annual targets for housing achievement in the 5-year Plans. The primary objective of the housing policy is to ensure that all Malaysians are accessible to adequate and decent shelter aimed at eliminating slum dwellings and squatter living country (Government of Malaysia: 1971). To achieve this, a housing strategy, with emphasis on the construction of low-cost housing for the lower income groups, was prepared by the Federal Government. As a state matter housing is given high priority by all State Governments and the Federal Territory of Kuala Lumpur under the supervision and coordination of the Ministry of Housing and Local Government (Government of Malaysia: 1971, 1973, 1976).

In housing matter, the Ministry is responsible for the planning regulation of residential development; issuance of licenses and permits for advertising and sale to housing developer; ensuring that all parties involved abide by all the legislation and regulations through proper enforcement; and provides financial assistance. The Ministry of Housing and Local Government has been entrusted with the task of enforcing housing related laws and regulations to safeguard the interests of house buyers. All housing developers are regulated under The Housing Developer Act (Control and License) 1966 (Act118) was enforced on August 29, 1969 while the Housing Developers Regulations came into force on April 1989 (Government of Malaysia: 2000).

Besides ensuring the adequate supply of houses for the various income groups, especially for the low income group, the policy also emphasises the importance of a safe and decent living environment to be achieved through comprehensive settlement planning. Social facilities like schools, playing fields, religious centres, community halls, recreation areas and libraries are also provided to improve the quality of life. In designing and providing for such facilities, consultations were held with the target groups to ensure that their needs are met adequately.

2. Aim and objectives

The aim of this research is to interpret and analyse the communal living environment in low cost housing development in Malaysia.

The objectives are as follows:

To identify the low cost housing development progress and house price in Malaysia

To interpret and analyse the low cost housing and communal living environment in Shah Alam, Malaysia

3. Research methodology

The research is based on both secondary and primary data. Secondary data on housing development progress and house price were gathered from Malaysian official documents including the Five Year Malaysia Plans, the Mid Term Review Reports and the Annual Reports of related agencies. Primary data was gathered through personal interviews with 300 residents of low cost houses in Section 7 Shah Alam. These residents were interviewed at their houses during the weekends of Saturdays and Sundays at time convenient to them as majority of them were working. Site visits were made and photographs were taken to confirm the physical development and community facilities provided for the residents.

4. Analysis

This first part of the analysis focus on the low cost housing development and the low cost house price in Malaysia. While the second part focus on the analysis of low cost housing development in Shah Alam and the findings of residents' interview.

4.1 Low cost housing development in Malaysia

The issue of low cost housing development not only covers physical and environmental aspects but also takes place within the human context. This will also to improve the quality of life of the residents and the surrounding community as well as to develop communal living environment.

The urban centers are an important focus where a total of 51,800 units of low cost flats were built in year 2005 in large cities Ong Ka Ting (2001). Different strategies had been adopted to address issues for the lower income group. Among the strategies were the public sector role, housing finance for informal sector, open registration for low cost housing, expanding low cost housing fund, rental for the urban poor, provision of infrastructure grant, housing for estate and industrial workers, housing programmes for government employees, standardising technical and planning standards and continuous research and development in housing (Ghani Salleh and Choong Lai Chai: 1997).

Table 1 shows the breakdown of the housing unit by categories for the year 2000 by states in Malaysia. From Table 1 it can be seen that low cost housing constitutes 13.1 per cent of the total with the highest number of units in the State of Johor 134,775, followed by Selangor with 131,330 units. The trend may be explained by the fact that states of Johor and Selangor are among the most urbanised states. The low cost housing is the third biggest category after the traditional housing of 50.6 per cent and the planned housing of 34.7 per cent (Abd. Mutalib B. Jelani: 2003).

Under the Eighth Malaysia Plan (2001-2005) 86.4 per cent of low cost houses with 200,513 units completed. Of this total, 103,219 units or 51.5 per cent was constructed by the public sector including the State Economic Development Corporations. To ensure an adequate supply of low-cost houses for the low-income group, any mixed-development projects undertaken by private developers continued to be guided by the 30 per cent low-cost housing policy requirement (Government of Malaysia: 2005).

As for the Ninth Malaysia Plan (2006-2010), the Government will continue to construct low cost houses to ensure adequate houses for the low-income group involving 24,757 units of houses. In addition, 43,800 units of houses for rental as well as for sale will be constructed to meet the expected increase in demand from the low-income group. The National Housing Department is working closely with state governments to ensure that these houses are built in suitable locations and provided with adequate public amenities (Government of Malaysia: 2005).

4.2 Low cost housing price in Malaysia

Under the four tier pricing scheme introduced in June 1998 by the Federal Government, low cost home is a living unit with a selling price of RM 25,000 to RM 42,000 depending on the locality as shown in Table 2. It could be a flat, terrace or detached house with minimum design specifications of a built up area between 600-750 sq feet, with three bedrooms, living room, kitchen, dining, washing and drying areas and also a bathroom. Those eligible to own are household with monthly income ranging from RM750 – RM1500. In some special cases units are to be rented out at a low monthly rate. Social facilities like schools, religious centers, community hall, libraries, open space and recreation areas are also provided to improve the quality of life. The main intention is to provide shelter for all and to ensure sustainable urban living environment. Building affordable housing units requires deep subsidies from both the public and private sectors (Government of Malaysia: 1999).

4.3 Shah Alam new town development

Shah Alam was developed as a new town in 1960 by the Selangor State Economic Development Corporation as a state capital city. As a new town it is to provide a more pleasant and efficient urban environment than existing towns. The ways in which the urban quality of life is influenced by planning activities at this early stage, that bring about changes in the physical reality, are of profound importance of Shah Alam development. The urban quality of life is aimed at providing useful insights of the contested and complex nature of concepts of developments such as community, land use distribution, rules and guidelines, places of interest, infrastructure, homes, community facilities, safety and other attributes. (Government of Malaysia: 1995; Dasimah: 2002). The new town development for Shah Alam was based on the neighborhood-planning concept of Ebenezer Howard as practiced in Britain. Each neighborhood unit, which also known as a section in Shah Alam, covers an area of between 50-600 acres each. Shah Alam is divided into 56 sections (Dasimah: 2002).

Shah Alam became the Selangor state capital city and administrative centre in 1978. It replaced Kuala Lumpur as the capital city of the state of Selangor to Kuala Lumpur's incorporation into a Federal Territory in 1974. Shah Alam was once known as Sungai Renggam and was noted for its rubber and oil palm estates. Its current name was chosen by the then State Sultan of Selangor, Sultan Salahuddin Abdul Aziz Shah after his late father Sultan Alam Shah. Shah Alam is located 28 kilometres to the west of Kuala Lumpur along the main axis of the Federal Highway and the railway line from Rawang to Port Klang. It is about 15 kilometres to the west of Petaling Jaya and was considered an ideal site for a new state capital because of its central position between Kuala Lumpur and Port Klang. It is situated in the most urbanised region of the Klang Valley and of Malaysia (Government of Malaysia: 1995).

Since the 10th October 2000 Shah Alam was declared as City of Shah Alam. It covers an area of 290.3 kilometer square. City of Shah Alam is well connected to other main cities in by highways and railways. It is also well connected to main transportation hubs such as the Kuala Lumpur International Airport (KLIA) which is 30 km south of the city and KL Sentral in Kuala Lumpur and Klang Seaport. The total population for Shah Alam in 2005 was 433,400 with a total of 155,000 residential units with an average growth rate of 30 per cent per year since 2002. There are seven institutions of higher learning including Universiti Teknologi MARA, Impens International College, Centre for Instructor and Advance Skill Training, Polytechnic, Kolej Universiti Teknologi dan Pengurusan Malaysia and Universiti Industri Selangor. Universiti Teknologi MARA has the biggest number of about 70,000 students. Shah Alam is well served with community facilities. There are 15 secondary schools, 52 primary schools, 121 kindergartens and two vocational schools, 7 health specialist centres, 84 clinics, 10 police stations and five fire stations serving the residents (Government of Malaysia: 2006).

4.4 Low cost housing development in Shah Alam

The low cost housing programme in Shah Alam was aimed at providing comfortable accommodation and communal living environment for the people. Table 3 shows the low cost housing development in Shah Alam by sections. Shah Alam has 6,395 units for low cost housing. The housing development for every section was planned with social facilities. This includes secondary and primary schools, community hall, religious centre, business area and shop lots.

A terminal bus is provided for public transportation service. The planning standard for open spaces provision is 10 per cent of the total area for consistent physical development and environment. The location for all facilities is a symbol for interaction. in the government's efforts to provide shelter for all especially the low income community and communal living urban environment.

4.5 Analysis on housing layout and design, communication systems and neighbourhood centre

The layout and design of internal space and its surrounding provide spaces for interaction among community members through the allocation of open spaces and communal facilities which are adequate, suitable, comfortable, functioning and maintained;

The cluster layout for apartment areas is to optimise the use of land thereby maintaining sensitive areas and establishing public open spaces;

The apartments layout and design creates safe and caring living environment for all levels of society including the children, elderly, handicapped and disabled;

Parking lots constructed at the periphery of the main road and linked to residential areas by means of footpaths are encouraged to ensure safety of residents in neighbouring areas while encouraging interaction among communities

A network of foot paths is provided especially for pedestrians; the pedestrian system which links the main activities, particularly the residential area with school or kindergarten and playground should be given priority in order to create neighbourhood which is children-friendly;

Creating a community which is free from the movement of vehicles by separating through traffic from the pedestrian system, bicycle and motorcycle paths;

Every housing zone is provided with recreational, social and educational facilities and services;

The internal and external design of multi-storeyed residential units take into consideration facilities for the handicapped and disabled such as stairs, ramp, doors, bathrooms and pedestrian system;

The neighbourhood centre, which encompasses open spaces, business and hawker centre as well as social facilities is accessible to all residents and meet the needs of the residents;

Communal courtyard is provided in the neighbourhood area for the purposes of:

Forging a spirit of 'we' and 'ours'

Facilitating the process of outlining the boundary for control and management by the community;

Enhancing social interaction among residents; and

Reducing vandalism (crime free).

Creating a neighbourhood which stresses on education by providing facilities such as religious centre, schools and kindergarten as educational places for children and for local residents;

Allocation of open spaces for children's playground and neighbourhood parks in which the location is strategic, easily accessible and safe;

Creating an integrated community centre comprises of a community hall, and centres for security management, sports and recreation, as well as social group meetings to forge unity and solidarity whilst helping to overcoming social problems;



Open Space



Shop houses

Providing open spaces for activities such as night markets and food courts to reflect the local culture;

The design of traffic system and car parks is to create a harmonious atmosphere to encourage a healthy and positive interaction among neighbours;

Each house unit with three bedrooms to ensure privacy;

The width of the staircase is wide enough for carrying the sick and the dead;

Creating quality communal living through environmental conservation, provision of modern facilities and adequate recreational spaces, ensuring safety of occupants, and attractive landscaping.

The provision of infrastructure and social facilities aimed at promoting social well-being for all and ensure equitable and communal living environment. The low cost housing development in Shah Alam has proven some success. The photographs showed the low cost housing development in Section 7 Shah Alam. There are 2240 units of 5 storey walk up flats. The project was completed in the year 2000. Each unit has three bedrooms, a living room, kitchen area, washing/drying area, and a bathroom. The community facilities provided including secondary and primary schools, kindergartens, religious centres, community halls, bus stops, shop houses, playground, car parking spaces and motorcycles parking bays.

4.6 Residents' perception survey findings

A residents' perception study for 300 low cost housing residents in Section 7 was carried out and the research found that the majority of them were satisfied with their communal living environment. It was found that 60 per cent of the respondents are house owners while another 40 per cent are tenants. House price per unit ranged between Ringgit Malaysia (RM)36,000 to RM38,000. The study found that 50 per cent of the respondents are within the monthly household income ranged between RM1,500-2,000 while another 35 per cent with RM751-RM1,500 (Salina Binti Alang Abdul Rahman: 2004).



Bus stop



Parking for motorcycles

More than 60 per cent of the respondents are working in Shah Alam, about 12 per cent in Subang Jaya while the rest are in Damansara, Kuala Lumpur and Klang. Majority of respondents that is 31 per cent travel to work by cars, 28 per cent on motorcycles, 12 per cent by commuter and only five per cent by bus. The survey finding showed that about 60 per cent would prefer traveling on their own transport. The public transportation service especially the bus circulation route and traveling frequency in this area is not attractive though the bus stop is well designed as shown in the photograph (Salina Binti Alang Abdul Rahman: 2004).



Playground



Car parking area

As for the provision of community facilities majority of respondents were satisfied with the health centre, primary and secondary schools, religious centre, community halls, police and fire service. However, majority of them requested for the improvement of the provision of open space, children playground, car parks, motorcycles bay and also public transportation service.

Conclusion

The underlying aim of the Total Planning and Development Guidelines is to develop a community which should be able to meet changes in values within society and be able to contribute to improving the quality of life. Housing policies and strategies are decisions by the political masters. The future cities and new towns require the Total Planning and Development Guidelines as the basis for communal living environment. The Government has good intentions in helping the poor to own homes. Low cost housing policies created to fulfill the socio-economic objectives. The Government should remain as project holders to ensure the quality of the houses are up to standard and communal living

environment is achieved. The new town development in Shah Alam by the Selangor State Economic Development Corporation has proven some success and has achieved a measure of success in the efforts to provide shelter for all and communal living environment. This was made possible by the joint efforts of all concerned – Federal and State governments, local authorities, financing institutions, the public and private sectors and the target groups themselves.

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Table 1. Housing unit by categories in Malaysia, 2000

State	Planned	Traditional	Low Cost	Squatters	Total	%
Selangor	418,053	397,350	131,330	33,829	980,562	21.2
Johor	276,510	280,575	134,775	7,280	699,140	15.0
Perak	153,341	347,745	68,287	3,540	572,913	12.3
Kedah	92,777	235,660	69,635	2,824	400,896	8.6
P.Pinang	161,216	154,361	40,407	1,803	357,687	7.8
KLFT	214,426	76,370	42,966	23,970	357,732	7.7
Pahang	57,603	210,846	37,505	869	306,823	6.6
Kelantan	23,986	261,639	8,801	1,654	296,080	6.4
N. Sembilan	111,081	97,855	35,041	196	244,173	5.2
Terengganu	17,749	168,760	13,784	632	200,925	4.3
Melaka	76,923	79,175	19,728	42	175,868	3.8
Perlis	6909	37,870	5,431	1,002	51,212	1.1
Total	1,610,574	2,348,206	607,590	77,641	4,644,011	
Percentage	34.7	50.6	13.1	1.6	4,644,011	100.0

Source: Abd. Mutalib B. Jelani (2003)

Table 2. The four tier-pricing scheme introduced by Ministry of Housing and Local Government

House price/unit	Category 1	Category 2	Category 3	Category 4
	RM42,000	RM35,000	RM30,000	RM25,000
Monthly income	RM1,200-1500	RM1000-1350	RM850-1200	RM750-1000
Land price/ sq. meter; location	RM45< Town/city	RM15-44 Town/city	RM10-14 Small town	RM10> Rural, Village
Suitable house type	Apartment more than 5 storey	5 storey apartment	Terrace or cluster	Terrace or cluster
Suitable house type	Apartment more than 5 storey	5 storey apartment	Terrace or cluster	Terrace or cluster

Source : Government of Malaysia (1999)

Table 3. Low cost housing development in Shah Alam by sections

Sections	Types of housing development
Section 7	5 storey walk up flats (2240 units)
Section 16	4 storey walk up flats (1158 units)
Section 19	5 storey walk up flats (200 units)
Section 20	4 and 5 storey walk up flats (1235 units)
Section 24	5 storey walk up flats (480 units)

Source : Salina Binti Alang Abdul Rahman (2004)



Changes in Consumers Behavior at Fitness Clubs among Chinese Urban Residents —Dalian as an Example

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Abstract

Consumer behavior at fitness clubs has always been a focus of research in the area of leisure and sports, but few attention has given to changes in consumer behavior in the domestic research cycle. since its appearance in 1990s in China, body building clubs have been playing more important roles in the sporting and exercising consumption of the urban residents. The behaviors of the exercisers are also changing with the social development. To precisely grasp the changes and trends of their behavior is very important whether for the management of the body building clubs or the organization of the national fitness movement. Using Dalian as an example, and through two market researches spanning 8 years, the paper carries out a comparative analysis of the changes in the consumers' behavior at fitness clubs, and discusses the trends of consumers' demands. The results could be beneficial for the clubs operation and organizing of sporting and exercising activities.

Keywords: Consumer behavior, Fitness club, Change, Dalian

1. Introduction

The living pace of modern society is in a constant acceleration, and working pressure is growing accordingly. Both people's mind and body are confronted with more and more pressure. Pseudo-health has already become a problem facing the modern urban dwellers. People are longing to regain their energy and strengthen their constitution through exercises after work or study. Thus, there are growing demands for urban sports and fitness facilities (Hu 2004).

On the other hand, with the enrichment of the health knowledge and the improvement of the living quality, people tend to choose more professional fitness sites with more comprehensive services and higher quality. They are no longer satisfied with the traditionally boring and monotonous exercise, but begin to treat body building as a way to enjoy modern civilization (Wang 2000). Fitness clubs become the ideal consumption sites for more and more people because of its comfortable and elegant environment, perfect and considerate services, advanced fitness and body building training programs and the blended idea of fashion and health.

The study of the exercisers' behavior in China started at the end of last century. The focus of the study was the operation situation of urban fitness clubs and behavioral characteristics of the exercisers (Liao 2002). As a kind of fashionable sports and leisure center, the key to the success of the fitness clubs lies in the accurate understanding of the fashion and following the consumers' demands closely so as to be familiar with every new demand from the consumers. Consumers' behavior at fitness clubs has changed a lot in the last decade. However, even up to today, there is no research to investigate the change of consumers' behavior at fitness clubs (Zhang 2006). Therefore, the objective of the study is to identify the changes experienced by consumers and to provide useful information for the management of clubs.

2. Methods

Through two market researches that cover the time span of 8 years, the paper carried out the comparative analysis of the changes in the exercisers' behavioral characteristics, and attempted to find the trace of the changing of the consumer behavior as to discover trends of people's body building and leisure activities. Thus, the results were expected to provide valuable information for the organization of exercising and leisure activities.

The first market research was conducted by Wang Hong from June to September in 1999, in which 500 questionnaires were administered to consumers in 9 fitness centers (fitness clubs) in Dalian and 447 were gathered (Wang 2000).

The second market research was done in September and October in 2007. At this time, the number of fitness clubs in Dalian has increased to 15 (the number was over 30 if subdivisions were included). 4 fitness clubs were chosen from different levels and exercisers in them were interviewed. A total of 460 questionnaires were administered and 437 usable ones were recovered.

3. Results

3.1 The changes in the demographic characteristics of the fitness club consumers

3.1.1 Change of ages

Results illustrated in Tab. 1 showed that there was no obvious change in the age of the consumers. The main body of the consumer still lied in the two groups with the age from 18-35 to 36-55. However, more and more senior citizens tended to do exercises in fitness clubs. The number of people over 56 almost doubled, with the growth from 1.1% to 2.1%. This showed that the fitness clubs were not only attractive to the young people, but also to the old people.

Table 1. Changes in demographic statistics for consumers at fitness clubs

Year	Age (%)				Education (%)			Job characteristics (%)	
	<18	18-35	36-55	>56	secondary	college	postgraduate	static	dynamic
In 1999	18.3	34.8	46.8	1.1	37	62.9	0	90.4	9.6
In 2007	4.2	53.7	40	2.1	11.6	66.3	22.1	94.7	5.3
Change			-6.8	+1.0	-25.4	+3.4	+22.1	+4.3	-4.3

3.1.2 Change of the educational levels

In the past 8 years, the educational level of the exercisers has already changed a lot. The number of the exercisers with low educational levels has decreased sharply, while the exercisers with high educational level become the main part of the fitness club consumers, especially masters and the above. In the research carried out in 1999, there was no statistics because of the small number. In 2007, this high educational group occupied 22.1% of the consumers, which proved the argument that the higher one's educational level was the stronger the exercising ideas were.

3.1.3 Change of occupations

There are also big changes in the exercisers' occupations. Among the exercisers, the number of those who are in relative static occupations has gained an increase of 4.3%, which showed that the characteristic of the consumers' occupation was closely related to the consumption in the fitness clubs. Static workers and intellectual workers were more likely to go exercising in fitness clubs. It was also discovered that, in the research of 2007, enterprise employees occupied the highest percentage of 35.7%, forming the major consuming group among the fitness club consumers. An obvious change was that a new consuming group—free professionals started to occupy higher percentages in the consumers occupying a percentage of 23.7%. For the relatively stable occupations such as civil servants and teachers, they took up relatively low percentages of 7.4% and 2.6% respectively. In addition, students were increasing fast, and it had already occupied 13.7%.

3.2 Change in consumers behavior

3.2.1 Change of consumption motives

In the 1999 research, the main purposes that the exercisers went to the fitness club were for exercising (57.9%) and losing weight (30.9%), while leisure and other purposes only occupied 11.2%. Just as Fig. 1 has showed, after 8 years, the consumption goals of the consumers tended to be more diversified. Although body-building and weight losing were still the main purposes, more and more people regarded the fitness club consumption as a daily leisure activity or a fashionable life style. At the same time, the purposes of the male and female consumers differed greatly. The male consumers' goals mainly lay in body building and leisure and entertainment, while female consumers' purposes were mainly in losing weight and enhancing constitution. Women's purchase of fashion by going to the club obviously occupied a higher percentage than men's purchase. To some extent, it showed that women were more sensitive in fashionable fitness products, and they were usually the first to try out new fitness programs.

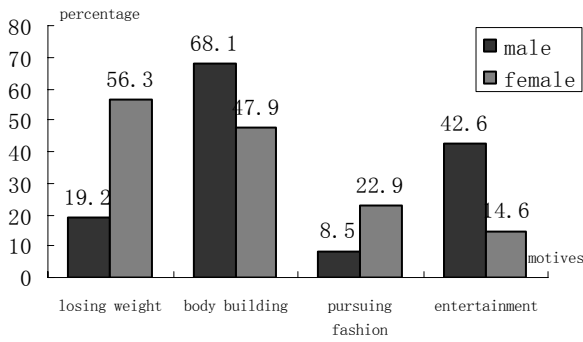


Figure 1. Consumer motivations at fitness clubs

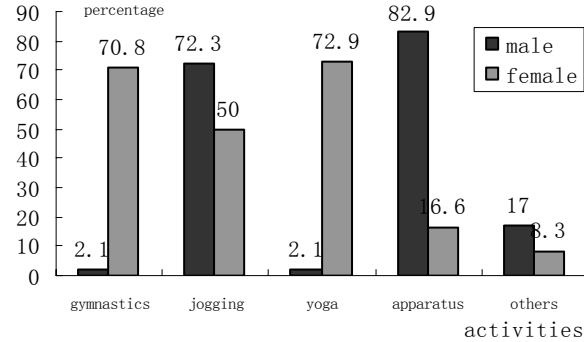


Figure 2. Consumer activities at fitness clubs

3.2.2 Changes in consumption content

In 1999, the programs the consumers attended are very limited [1]. Body building exercises and simple apparatus exercises constituted the main parts of the programs. Up to 2007, the programs that consumers were attending were more diversified. Except for body building exercise and jogging, the equipment exercises were more professional and fashionable. New programs were very popular, like hyperthermia yoga, taekwondo, fencing, free combat, bicycle, and indoor golf. Form chart 2, we could see that among the consumers, male consumers' sports were mainly jogging and equipment exercises, while female consumers' major programs lay in body building exercises and yoga, and jogging was also the program they like.

3.2.3 Change of consumption ability

The price is a very important element for consumers to choose a fitness club. The consumption capability of the consumers will determine the consumers' choice of the fitness clubs to great extent. In the process of choosing a fitness club, the consumers will attach great importance to the performance price ratio between the cost and the experience they would gain. According to the 1999 research, people were very sensitive to the price of the fitness clubs. They thought the pricing in the fitness clubs were too high, and 42.9% of the consumers didn't go to clubs to exercise because of the high price. At the time, the average annual price of the fitness clubs in Dalian was 2290 RMB, while 44.3% of the consumers thought that about 1000 RMB a year was the acceptable price. In the research, It was discovered that the average annual price of the fitness clubs had already increased to 3520 RMB, which was a 50% growth compared with 8 years ago.

In order to understand the purchase power of the exercisers, we carried out a research on the exercisers' income level and willingness to pay. As Figure 3 showed, the average monthly income of the fitness club consumers in Dalian fell into two levels: from 1000-3000 and from 3000-5000. The group with a monthly income of 3000 RMB and the above occupied 60% of the consumers, among which the group with an income higher than 5000 also occupied 20%. The phenomenon showed that the consumption objectives of the fitness clubs were mostly people with high income. About the expected payment that the consumers were likely to pay annually for body building and exercising, 60.3% of the people would like to pay 1000-3000 RMB, and 35.7% of the consumers 3000-5000 RMB. It can be observed that accompanying the increasing awareness on health, people were willing to pay more money on health consumption. However, most of the consumers only would like to pay 1000-3000 RMB yearly, while the average annual price is 3520 RMB, which exceeded the people's willingness of payment. Firstly, it showed that the pricing of the fitness clubs was too high. Secondly, people's acceptance towards the price of the contemporary fitness products was quite limited.

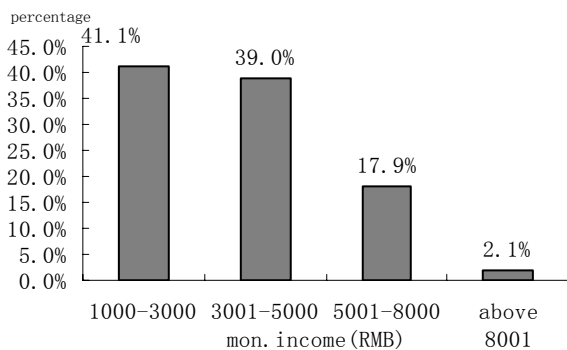


Figure 3. Consumers monthly income

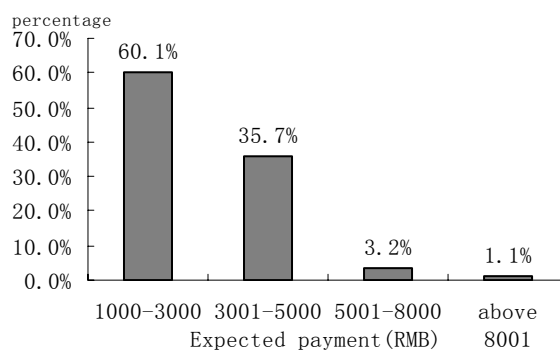


Figure 4. Consumers' ideal yearly expense at clubs

3.2.4 Change of the consumption forms

In 1999, because people thought that the price of the fitness club was too high, they mostly irregularly went to fitness clubs and paid according to times they consumed. The lower consumption frequency led to an instable consumer market for fitness clubs. Some of them only lasted for 3 months or half a year and then quit [1]. Nowadays, the pricing of the fitness clubs is more flexible. They provided packaged products in different prices to meet the consumers' demands. For the exercisers, going to the clubs for leisure gradually turned into stable and habitual behavior. Compared to the instable guests (6.31%) and monthly payment (7.37%), people preferred the stable annual payment more (60%), and even liked to become permanent members of the clubs (26.3%). It indicated that the consumption form had already changed from a loose and temporal one to a stable and long-lasting one.

3.2.5 Change of the consumption evaluations

According to the 1999 research, the exercisers were quite satisfied with the programs that the fitness clubs offered. 95% of the exercisers thought it was effective in body building and health keeping, 90.6% of them could refresh themselves through the exercises, and 35.6% of the people felt that exercises make them younger, and 30% of the people believed that they attained the expected effect of losing weight. The 2007 research also revealed that the exercisers were quite satisfied with the sports apparatus in the clubs, but not with the complementary services. 95.8% of the consumers were satisfied with the exercising equipments, 92.7% of the consumers are basically satisfied with the exercising programs. While for the affiliated facilities and services, 67.4% of the consumers thought the catering and relaxation places of or near the clubs needed to be improved. Only 2.1% of the consumers believed that the present condition was all right and needed no improvements. However, the actual situation showed that many clubs did not have catering and entertaining facilities.

3.2.6 Change of loyalty

In the 1999 research, most of the exercisers adopted the program charged by consumption times or month programs, and many consumers quit in the middle. While in this research, 93.7% of the people had their own stable fitness clubs, and did not change easily.

3.2.7 Change of the criteria for choosing the fitness clubs

In 1999, because of the income limits, most the consumers' major consideration was the price while choosing the clubs (42.9% of the people could not afford to go to the clubs, while 44.3% of the exercisers' acceptance ability of the price was limited). Now, the price was still the primary restriction when people are choosing the clubs. However, the consideration tended to be more comprehensive for the exercisers when they were to choose clubs. Except the price (62.3%), the environment (59%), the facilities (49.5%), the programs (43.2%), the couches (36.9%), the brand (28.4%) and the scale (21.1%) of the fitness clubs were also important elements when people made decisions.

Conclusion

According to the above analysis, in the past decades, consumers' behavior at fitness clubs has changed greatly in Dalian. There emerged some new characteristics:

- (1) The consumption group's structure has changed. Senior citizens gradually joined the group of the fitness club exercisers' group. The educational level of the exercisers increased, and the consumers with high educational levels occupied the main parts of the consumers. The percentage of free professionals and individual proprietors' increased and made very important components. Students become a new consumption group.
- (2) The consumption goals and contents of the consumers were more diverse. The functional (body building and losing weight) consumption still occupied a high percentage, while the percentage of the entertainment consumption (leisure and fashion pursuit) increased. To consume in the clubs was not only considered as a means to exercise and to lose weight, but also as a way of experiencing leisure and relaxation. Fitness consumption has become one of the daily leisure activities.
- (3) The consumption ability of the consumers has increased, and their consumption will is strong. The pricing of the fitness clubs was increasing too fast, and turned out to be too high for people's income. On the other hand, people's acceptance ability was still limited.
- (4) The consumption form changed from the loose and temporal one into a stable and permanent one. Annual payment and permanent membership were popular.
- (5) Consumers' satisfaction with fitness clubs was relatively high, and they demanded an improvement on entertainment and service facilities affiliated to clubs. The consumers were highly loyal to their fitness clubs. In the selection of a club, except for price, the environment, the facilities, the programs, the coaching level, the brand and the scale of the club were all important decision-making elements.

To analyze the reasons for the upper changes, there are two main aspects. One is in the change of the consumers'

demands, and the other lies in the changes of the fitness clubs' offers.

Firstly, in the past 8 years, Chinese urban citizen's income level has increased, and their consumption ability for high standard consuming facilities also increased. Citizen's educational level increased. Accompanying the increasing working pressure, the well educated employees need to refresh their energy and enhance their constitution after arduous work so as to adapt themselves to the fast-paced life style. Secondly, through more than a decade's development, fitness clubs have gradually evolved from simple body building centers into comprehensive leisure centers that integrated the functions of body building, exercising, entertaining and relaxing, which can meet exercisers' various needs. In addition, China has gradually entered an era of recreation. Accompanying the increasing wish for recreational activities, professional sporting and body building are welcomed by the relatively rich and young urban people as fashionable recreational products.

To grasp the changing characteristics of the fitness clubs consumers' behavior and to make adjustments accordingly in the target markets, products, prices and services could facilitate clubs to make success. Firstly, the target consumption group for fitness clubs should be the highly educated enterprise employees. Newly flourished free professionals and students are unignorable markets. Secondly, the price acceptance ability of the consumers is still limited. The fitness clubs can provide different product packages in different prices targeting at different groups through the flexible collocations of different programs and products. Thirdly, the consumers have quite high demands for the entertainment, relaxation and catering facilities and services except for exercising. The clubs should improve the affiliated facilities and services for the convenience of the consumers' restoration of energy after exercises and for their recreational demanding. In addition, the exercisers' fidelity is very high. The clubs should pay attention to the improvement of the environment, facilities and coach quality, and the enhancement of brand construction, so to attract customers, and increase the customers' fidelity.

The change of the fitness club consumer' behavioral characteristics in Dalian reflected the changing trend of the fitness club consumers' behavior in our national urban areas to some extent. The research exerts positive influences on the accurate perception of the changing trends in consumers' behaviors at the Chinese fitness clubs, and the scientific planning and organizing of sports and exercising activities.

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A Comparison and Research on the Sino-U.S Character Education

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Abstract

Character education seeks to develop virtue—human excellence—as the foundation of a purposeful, productive, and fulfilling life and a just, compassionate, and flourishing society. This study was taken in view of the growing importance of character education in P.R.China and United States. Significant differences and similarities were found in mechanism and perceptions about character education in these two countries. The underlying reasons that may account for such differences are discussed extensively.

Keywords: Character education, Educational teaching idea, Educational teaching mode

1. Introduction

With only about two hundreds of years in establishing its state, the United States is quickly developing into a modern country, becoming today's super power and playing an increasingly important role in the world's historical course of development. We know that there are many reasons for why the American society is growing so quickly in a variety of ways, but the one important reason we are sure of is its character education. What is the characteristic of America's character education compared with China's one? How does it make so much of achievement in this matter? As an integral part of modern education, character education has been vested with a fully new meaning in 21 century when many countries in the world are sparing no efforts in pushing for economic, political and social reform, and modern science and technology are playing decisive roles in the social progress and economic development.

Compared with the character education practiced in the advanced countries in the world, especially in America, China's character education is quite later in its development, and therefore, needs to learn to borrow America's beneficial experiences in its development and cultivation of character education mechanism. America is a superpower of science and technology and education in the world. American government has always attached primary importance to developing and improving character education mechanism, and established a complete set of nationwide character education mechanism supported in terms of financial assistance, legislative guarantee, and participation by people from all walks of life. Therefore, it is meaningful for us to make a comparison and research on the current situation and mechanism of Sino-U.S character education

2. The different roles played by American teachers and Chinese teachers in character education

In American education and culture, the function of teachers is to help their students to make a self-realization and to gain knowledge and skills in their studying process. American teachers would not get involved in helping design life future for students, but rather, they would play the roles of mentor of students – giving attention to students' daily learning problems, and offering their help and suggestions. American teachers join self, subject, and students in the fabric of life because they teach from an integral and undivided self; they manifest in their own lives, and evoke in their students, a "capacity for connectedness." They are able to weave a complex web of connections between themselves, their subjects, and their students, so that students can learn to weave a world for themselves. The methods used by these weavers vary widely: lectures, Socratic dialogues, laboratory experiments, collaborative problem-solving. The connections made by American teachers are held not in their methods but in their hearts -- the place where intellect and emotion and spirit will converge in the human self. The American school itself embody a good character. It progresses towards becoming a microcosm of the civil, caring, and society we seek to create as a nation. The American school does this by becoming a moral community that helps students form caring attachments to adults and to each other. These caring relationships will foster both the desire to learn and the desire to be a good person. All students have a need to belong, and they are more likely to internalize the values and expectations of groups that meet this need. The daily life of classrooms as well as all other parts of the school environment is imbued with core values such as concern and respect for others, responsibility, kindness, and fairness.

While in Chinese education system, teachers decide students' future in some sense in school and influence students' lifetime to some extent. Chinese teachers are expected to play the role of not only teaching responsibility but also example of morality, which means that Chinese teachers need to be concerned about students' academic performance, take care of students' daily life and safety, focus on students' ideological idea and plan students' lifetime goals after graduation. Under the background of Chinese traditional culture, the Chinese teachers not only need to teach students but also need to "foster" students. That is why the good relationship between teacher and student is often dubbed as "relationship as good as father and son" or "relationship as good as mother and daughter". In some sense, the roles played by Chinese teacher is the overlapping roles of both teacher and parent, and idea of "respecting teacher as sage" is the common attribute for most of Chinese students and teachers. In contrast, what the American teachers do for their students in some more sense is to offer help and suggestions which usually focus on where teachers and students have common concerns and interests. They seldom go beyond the limits of working relationship between teacher and student to mold students in accordance with their own model of idea. In American education, a school's character education mission statement states explicitly what is true: Parents are the first and most important moral educators of their children. Schools also take pains at every stage to communicate with parents about the school's goals and activities regarding character development — and how families can help. To build trust between home and school, parents are represented on the character leadership committee, and all parents need to be informed about — and have a chance to react and consent to — the school's proposed core values and how the school proposes to try to teach them. Finally, schools and families will enhance the effectiveness of their partnership if they recruit the help of the wider community — businesses, religious institutions, youth organizations, the government, and the media — in promoting the core ethical values.

3. Different patterns of participation in classroom activities in Sino-U.S character education

American teachers like to encourage students to take vigorous part in the classroom activities and discussions whether for big class or for seminar, it is because they think students' participation in the classroom discussion is of inherent value and the best way to stimulate students' creative idea. That is why the group project or group discussion in classroom is integral part of the important forms of lecturing presented by American teachers, and the atmosphere of class is very active. American teacher pay much attention to cultivating students' practical capability, independent cognitive ability, and creative mentality. If some of students keep silent all the time in classroom, it will somewhat worry teacher, and he/she will try his/her best to arouse the students to speak out their comments or opinions and get involve in the classroom activities and discussion. In contrast, Chinese students are not quite used to raising questions or comments in classroom. There are seldom student who would put forward their different questions and opinions in classroom by interrupting the teacher's lecturing process. On one hand It is because the Chinese students have been instilled from the very beginning with an idea that teacher is academically authoritative which allows of no challenge, and on the other hand, it is because teacher are afraid that the students' participation in the classroom discussion would make teacher feel out of the control of class, and maybe even they are afraid that the students would ask some of difficult questions that teacher are not able to give an answer, which they feel face-lost. As a matter of fact, they mistakenly position their roles as teacher. They don't know that they are much of limits as a teacher, and they are not educational authority. What is more important for teacher to do is to lead students into a correct way of learning and thinking to arouse their creative capability.

4. Difference of examination system of Sino-U.S character education

In Chinese education system, examination is used as a primary standard to learn how well the students perform academically. It seems that the students' capability should be manifested and realized only through the form of examination, and the examination is the most ultimate authoritative teaching conduct for screening and selecting students. For most of Chinese students of high schools nationwide, to take a national examination of admission into university is their best choice and opportunity for good future life. Although there are different points of view held by many people towards the national examination of admission into university, so far there has been no a better means of selecting talented people than examination. The Chinese students have to continue to strive for good scores of examination, and teachers still have to make great efforts to make students achieve good scores of examination. The schools have to resort to every means to gain high percentage of students' enrollment of university.

In American education system, examination is a means used for teachers to understand students, find students' learning problems and communicate with students. It is used as a form by teacher to collect the information of feedback about teaching results. Generally speaking, American teachers won't assess their students' academic performance only by resorting to one class test, but rather, they would make their assessment of students' performance by means of whole term of homework, classroom performance, quiz, laboratory experiment report, mid-term and final-term examination results. For American students of high schools, if they want to go to study in university they have to take care of their scores made during whole period of term, which include test, homework, lab experiment, classroom discussion and class attendance. As such, universities would count on this comprehensive academic performance to decide the

enrollment of students. The cultivation of students' capability is not merely limited to the classroom, but rather, it is gained through many other different ways such as sports, extracurricular activities, community volunteer services and so on.

5. Contributing factors of development of Sino-U.S character education

5.1 The change of demographic structure leads to the new need for character education.

A great number of Americans receiving character education come from the different groups of people who are attending non-traditional school, and most of them are from various groups of immigrants who are naturalized as American citizens. With more and more immigrants moving to America since 1960s, the size of immigrant population has got huge expansion. However, as the minority group, they do not quite understand American language and culture because of their lower educational level. Therefore, they have very strong desire for learning to survive a new life environment. Meanwhile, the American social and economic development itself needs to transform them, a huge labor force, into human resources to help contribute to its further development. To do so needs American government to provide a certain degree of character education and training for them, including adult education, vocational technical education, long-distance correspondence education, community college education, T.V university long-distance education and so on.

With the increasing rise of American women's social and economic status in recent years on one hand and the gradual dwindling of American family size on the other hand, more and more American women have time to participate in character education. Most of them attend community colleges with two years of schooling to learn specialized technical skills so as to get jobs appropriate for them to do.

The other group of Americans taking character education are amateur learners of older age. With the coming of aging population of American society, many of them want to learn something which will be conducive to raising their health and cultural quality and improving their leisure activities.

5.2 The global economic competition makes character education an objective necessity.

To enhance the global competitive power of American economy has always been the main purpose of American educational policy. Education has been regarded by American government as one of the best means to enhance labor productivities. With the advent of global economic integration, how to make American original structure of labor productive technology and knowledge fit for the global economic competition has become increasingly urgent for American government to find a solution. All this means that a great amount of labor forces are to be reeducated and retrained for the new knowledge and new skills by means of character education.

Character education is the mainstream culture of American society. It has always been advocated by the mainstream culture of American society to achieve success through personal hard work and study. For more and more Americans today, old and young, male and female, the continuous learning in their lives has increasingly become an agreed-on social value as well as a shortcut in their efforts to make success. The traditional one-time education method can no longer meet what they desire to make their dream for personal success come true. Therefore, character education has not merely become a means to make a living in modern society, what is more, has become what they can count on in realization of their dream of life.

5.3 The development of high-tech makes character education a possibility.

1998, the former U.S president Clinton published his administration's report about realization of character education through long-distance information technology, the main idea of which is to take the advantage of the development of modern information technology to provide more and new education opportunity for more Americans in need. The advent of modern information technology has greatly changed people's old learning method and revolutionized the traditional space and time of education, which has made people's education not necessarily confined to a certain place and time. People who live in remote rural areas can enjoy the same level and contents of education as urban people through T.V and computerized long-distance education. Nowadays the providers of education are not only traditional schools and educational institutions but also those industrial and commercial enterprises as well as the organizations from all walks of society.

When making a comparison between China and America for the above-mentioned contributing factors of character education, we can see that while they have something in common there are something different in degree and in kind.

First of all, the China's reform and opening policy practiced since 1980s has led to a great change of China's demographic structure. The expansion of urban cities in size has provided the best possible opportunity for the rural peasants to migrate into cities to live and work as so-called peasant workers (*nongmingong*). The speeding process of urbanization of rural towns has turn huge number of rural populations into urban ones. The rural-urban inequalities signaled by the large income gaps between rural and urban residents, combined with the pervasive problem of labor surplus in Chinese rural areas, have spurred mass rural-to-urban migration since the economic reforms of the 1980s,

when the government started to loosen the control of the movement of population and free people to pursue new sources of income (Xu, 2003). The massive internal migration in the country had accelerated the process of urbanization, with the proportion of urban population doubling and increasing from less than 20% before 1980 to slightly over 40% in 2003. Meanwhile, the urban population increased by 452.1 million within 50 years, accounting for 63% of the total population increase. China's massive rural-to-urban migration has created a rapidly growing special group in the country: the "floating people." The term refers to the unsanctioned migrants: people who migrated to a new location where they do not hold official household registration certificates (*hukou*). The fifth China census shows the floating people in the country to be between 110 and 140 million, which accounts for about 10% of the total population (Liu & Wen, 2004). Either peasant workers or floating people, their educational degree as well as the mastery of vocational skills are relatively lower. It is difficult for them to compete with urban people to make a good living in cities. Therefore, most of them have very strong desire to get a certain degree of education as well as the skill training. Meanwhile, to turn the huge labor force of peasant workers and floating people into human resources fit for the new goal of economic development 21 century is a must for the Chinese government to take in earnest, and needs it to provide all levels and variety of adult education and training as kind of character education.

The economic tide of globalization has without any exception got China involved in the international economic competition. This type of competition, putting it in other words, is in effect a competition for education and for talented people with higher degree of education. In recent 10 years, in order to gear with the global economic competition and optimize labor productive forces, Chinese government has made a resolved and sweeping adjustment and rectification for its economic and productive structural systems, which unavoidably made a lot of employed workers to leave their posts. According to the relevant statistic of 2005, 13 millions of employed workers were forced to leave their working posts before the legal retiring age. Although most of them will get some types of compensations or government's subsidies, they still want to find the new jobs by receiving reeducation and retraining of vocational skills.

Character education is an advanced learning idea. With the development of China's economy and society, especially with the conceptual and ideological change of Chinese people, the idea of character education has been gradually accepted by more and more of them. However, comparatively speaking, Chinese educational idea is still predominated by an orthodox and closed-door school's educational idea, which takes that the purpose of education is just for the obtainment of diploma and degree. The old traditional idea of "education for one-time, useful for all one's life" is still prevailing in today's educational market, which make it very difficult to thoroughly popularize the idea of character education and to make it become the mainstream idea and awareness.

6. The Sino-U.S character education strategy of development

In order to constantly meet the changing demand of people from all walks of society for character education, American government has drawn up a series of flexible education measures and plans and developed a set of standing effective mechanisms of character education, which is characteristic of richness in contents, completeness in structure, and variousness in forms.

6.1 Allowing full play to the role of all walks of society in development of character education.

The American government always takes it seriously that character education is a huge systematic social project and needs various social organizations and industrial and commercial enterprises to get involved as the main providers of character education. The American government spares no efforts to intensify its financial support and policy support in promotion of character education. It stipulates that all social organizations and industrial and commercial enterprises can enjoy the preferential educational policy, the reduction of education taxation and non-interest financial assistance provided by three levels of governments on condition that they take part in opening and managing character education. According to statistics, American government's financial assistance for character education has increased from \$ 202 millions in 1990 to \$ 301 millions in 1997. The U.S government financial assistance also includes the character education scholarship, non-interest student loans, and subsidies of study.

6.2 Reinforcing government's management and research for character education

The character education is both a huge social systematic project and a complicated educational systematic project. Therefore, the American government reinforces its macroscopic regulation and supervision for character education, the purpose of which is to allow full play to the initiative of local social organizations in development of character education, and in the meantime, to reduce the blindness of people's engagement in education. 1996, the American government specifically drew up "national research plan for the development of priority" which set the character education as the subject of priority for development and research. The plan also lists some problems which are related with character education and need to be resolved.

In contrast, Chinese government fails to make an overall plan in mapping out the policy of developing character education, especially fails to establish a set of comprehensive character education laws and statutes with concrete workable measures, which has great bearing on the long-term healthy development of character education, the

guarantee of character education mechanism as well as the enforcement of character education policy.

It is due to the active response and participation of all walks of society that the idea of character education has gone deep and deep into American people's minds. The participation of Chinese social organizations in the character education is far from achieving the social effects as a whole, and much of efforts in developing character education have still been made by Chinese government alone, which is very difficult to accomplish the task of constructing a relatively perfect mechanism of character education.

The development of character education not only needs the support from policy and law but also needs financial support from government. It is because there have been so far no specific law and statutes for character education that Chinese government is not likely to map out the policy to financially support character education. The mechanism of management and research in Chinese character education remains much rooms for improvement. The first step of management mechanism is to set up and improve the system of educational assessment, which is a key link to verify and guarantee the quality of character education. Therefore, the Chinese government needs to establish a set of complete national scientific system of assessment for character education in order to promote the orderly and healthy development of it.

7. Conclusion

Educational systems today are focused on raising standards of academic achievement. However, as we consider the world in which we live, we understand the importance of helping students to learn much more than the subjects they study. Appropriate environments, activities, the arts, and service projects can help students to learn responsibility, compassion, integrity, civility, leadership and cooperation. These and other elements of healthy, well-developed character can be learned by example and opportunities to exercise them. Character education takes deliberate steps to cultivate moral and intellectual virtues through every phase of school life—the example of adults, the relationships among peers, the handling of discipline, the resolution of conflict, the content of the curriculum, the process of instruction, the rigor of academic standards, the environment of the school, the conduct of extracurricular activities, and the involvement of parents. Everything that happens in the life of the school is character education, because everything affects character. With China entering an intellect-based economic era today, the character education has been taken as a basic state policy to revitalize China by virtue of education and science. The importance of character education has gone beyond the significance of character education itself both in terms of its theory and in terms of its practice. It will be advisable for us to learn and make a research into America's character education, for there exist great differences between two countries on either teaching idea of education or teaching mode.

The different cultural tradition of America and China affects two countries' ideas and concepts of character education. Chinese education is centered on the book knowledge with academic examination as its major focus, which is not instrumental to the cultivation of creative capability. The American character education system has a lot of useful practices for us to borrow and learn. It is hoped that Chinese character education will get much improvement by drawing on the beneficial experiences of American character education system.

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The Promotion of Chinese Language Learning and China's Soft Power

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Abstract

China is currently promoting Chinese language learning throughout the world as part of its effort to accomplish its foreign policy goals through the use of soft power. This paper begins by defining soft power and discussing how and why China is attempting to establish and spread it. It then goes on to describe the ways in which China is promoting Chinese language learning and the results of such efforts. It argues that although China's efforts have been successful in creating a positive image of the Chinese language and attracting learners, there are still obstacles to the promotion of Chinese language learning and by extension China's soft power.

Keywords: China, Chinese language learning, Chinese Bridge Chinese Proficiency Competition for Foreign College Students, Confucius Institute, National Office for Teaching Chinese as a Foreign Language, Soft power

1. Introduction

A prominently displayed sign in the Foreign Languages Bookstore in Chengdu, Sichuan Province, China says, in Chinese characters with English below:

China needs foreign languages, the world needs Chinese

The first part of this equation has received much scholarly and practical attention, particularly in regards to the learning and teaching of English. However, the second part, concerning the learning of Chinese throughout the world, has so far received very little such attention.

So why should we concern ourselves with this sign's seemingly simple claim that "the world needs Chinese"? One compelling reason is that the Chinese government is promoting the learning of Chinese throughout the world almost as much as they are pushing foreign language learning in China. This can be seen as part of a broader effort to accomplish China's overarching foreign policy goal of resuming its once central place in both Asia and the world (Harris, 1995, p. 14; Hubbard, 2008, p. 94; Roy, 1998, p. 1) through the spread of soft power (Kurlantzick, 2007).

This paper will set the promotion of Chinese language learning within China's efforts to increase its soft power, describe the ways in which China is promoting Chinese language learning and discuss the outcomes of these efforts.

2. Soft Power in World Politics

In the field of world politics, power is one of the most important and central concepts (Goldstein & Pevehouse, 2006, p. 57; Nossal, 1998, p. 44; Ray & Kaarbo, 2002, p. 99). It is usually defined as the ability of a particular actor to control or influence others and the outcomes of events (Griffiths & O'Callaghan, 2002, p. 253). An actor's power is derived from the resources available to it and is used to accomplish and protect goals (Griffiths & O'Callaghan, 2002, p. 253; Nossal, 1998, pp. 96-97).

Although traditionally power was seen to derive from population, territory, natural resources, economic size, military forces and political stability and be exercised mainly through military means (Nye, 1990, p. 154), there are other sources of power and ways for actors to accomplish their goals. Joseph Nye developed the concept of soft power, which he explains as follows:

A country may achieve its preferred outcomes in world politics because other countries want to emulate it or have agreed to a system that produces such effects. In this sense, it is just as important to set the agenda and attract others in world politics as it is to force others to change in particular situations. This aspect of power – that is, getting others to want what you want – might be called attractive, or *soft power* behavior. Soft power can rest on such resources as the attraction of one's ideas or on the ability to set the political agenda in a way that shapes the preferences others express. Parents of teenagers know that if they have structured their children's beliefs and preferences, their power will be

greater and will last longer than if they had relied only on active control. Similarly, political leaders and constructivist theorists have long understood the power that comes from setting the agenda and determining the framework of a debate. The ability to establish preferences tends to be associated with intangible power resources such as culture, ideology, and institutions (2005, p. 61).

The essence soft power in world politics is that other actors do what the holder of soft power wants them to do because they see the soft power holder and its goals as legitimate, rather than out of a sense of fear or desire to gain a reward (Oğuzlu, 2007, p. 83). Soft power thus contrasts with traditional kinds of power or hard power. In the case of China, however, soft power has a slightly different meaning than Nye's original definition. As Kurlantzick puts it, soft power in China refers to "all elements outside of the security realm, including investment and aid" (2006, p. 271).

Although soft power is not new, Nye (1990; 2005) has argued that it is becoming more important in an increasingly interdependent and interconnected world. This point has not been lost on China's leadership who, as we shall see in the next section, have made a significant shift in China's foreign policy and approach to the outside world.

3. China's Shift to a Soft Power Strategy

From the 1950s to the late 1970s, China's foreign policy was focused on encouraging and supporting revolution in other parts of the world, particularly Southeast Asia, Africa and Latin America (Bergsten et al., 2006, p. 129; Kurlantzick, 2007, pp. 13-14; see also Van Ness, 1970 for a detailed discussion of this aspect of China's foreign policy). After Deng Xiaoping came to power, China focused instead on its own economic reform and modernisation while purposely keeping a low profile in world affairs (Harris, 2005, p. 481; Kurlantzick, 2007, pp. 16-17). Beginning in the late 1990s, however, China again changed its focus and began to concentrate on soft power. Several factors prompted this shift. Firstly, China's spectacular economic development gave both the Chinese leadership and public greater confidence in China and its place in the world. Secondly, in the wake of the world's reaction to the Tiananmen Square Massacre, China realised it could not depend solely on the USA and needed to improve ties with neighboring countries as well as take a greater international role in order to achieve its goals. Perhaps most importantly, China's attempts to achieve its goals through the use of hard power, such as dispatching warships to disputed areas of the South China Sea and firing missiles in the Taiwan Strait, did not work, which not only demonstrated that China could not yet hope to compete with the USA in terms of hard power but also antagonised and alienated other countries (Goldstein, 2003, p. 67; Kurlantzick, 2006, p. 271).

At about the same time, Chinese academics also began to argue that the USA's soft power had declined significantly since the end of the Cold War and that China could indeed compete on this front (Kurlantzick, 2006, p. 272; Kurlantzick, 2007, pp. 32-33). All of these factors combined therefore resulted in China's adoption of a soft power strategy to achieve its goals.

4. What China Hopes to Accomplish

What then does China hope to achieve through the use of soft power?

To begin with, China wants to create a peaceful international environment in which its economic development can continue and in which it can portray itself as a responsible and constructive player in world politics (Kurlantzick, 2007, p. 39). China is the world's second largest consumer of energy and requires significant amounts of resources to sustain its economic development so it is not surprising that China's second goal is to secure a range of resources such as oil, timber and various minerals (Harris, 2005, p. 483; Kurlantzick, 2007, p. 39). Thirdly, China would like to create a circle of like-minded allies, all sharing its disdain for outside interference in a country's own affairs (Kurlantzick, 2007, p. 41). Another of China's goals is to convince other countries that China is a great power and may even be capable of becoming the USA's equal in the long term (Kurlantzick, 2007, p. 42). Finally, China aims to use its soft power to isolate Taiwan by convincing other countries to cut ties with Taiwan and instead establish formal relations with the People's Republic of China (Kurlantzick, 2007, p. 42).

In order to implement its soft power strategy and accomplish these goals, China employs a number of tools, which Kurlantzick (2007) divides into two groups, the tools of culture (Chinese culture, arts, language and ethnicity), and the tools of business (aid, trade, investment and the appeal of China's economic model).

The next section focuses specifically on the Chinese language by drawing on official Chinese government sources to describe the main ways in which China promotes Chinese language learning around the world.

5. China's Promotion of Chinese Language Learning

There is little doubt that China sees the promotion of Chinese language learning as one of its soft power tools. The Ministry of Education's website, for example, states that:

Teaching Chinese as a foreign language (TCFL) is an integral part of China's reform and opening up drive. To promote TCFL is of strategic significance to popularize the Chinese language and culture throughout the world, to enhance the friendship and mutual understanding as well as the economic and cultural cooperation and exchanges between China

and other countries around the world, and to elevate China's influence in the international community (Ministry of Education website).

An even more direct statement regarding the promotion of Chinese language learning was made recently by a National People's Congress (NPC) deputy, Hu Youqing, who said that:

It can help build up our national strength and should be taken as a way to develop our country's soft power (quoted in Kurlantzick, 2007, p. 67).

Chinese language learning is promoted through the National Office for Teaching Chinese as a Foreign Language, Confucius Institutes, volunteer and state sponsored teachers and the Chinese Bridge Chinese Proficiency Competition for Foreign College Students.

5.1 National Office for Teaching Chinese as a Foreign Language

Established in 1987, the National Office for Teaching Chinese as a Foreign Language (NOCFL), also known as the Office of Chinese Language Council International and in Chinese as Hanban, is the main organ for the promotion and spread of the Chinese language. According to its website:

Hanban is committed to making the Chinese language and culture teaching resources and services available to the world, to meeting the demands of overseas Chinese learners to the utmost, to contributing to the formation of a world of cultural diversity and harmony (Hanban website, a).

Members from 12 state ministries and commissions make up the NOCFL: the General Office of the State Council, the Ministry of Education, the Ministry of Finance, the Overseas Chinese Affairs Office of the State Council, the Ministry of Foreign Affairs, the State Development and Reform Commission, the Ministry of Commerce, the Ministry of Culture, the State Administration of Radio, Film and Television (China Radio International), the State Press and Publications Administration, the State Council Information Office and the State Language Committee (Hanban website, b).

NOCFL is similar to the Japan Foundation and the Korea Foundation in that it conducts a range of activities aimed at promoting and spreading the Chinese language and culture (Lo Bianco, 2007, pp. 11-12).

5.2 Confucius Institutes

Beginning in 2004, China, through NOCFL, has been setting up non-profit education organisations outside of China known as Confucius Institutes to teach Chinese language and culture. According to the *People's Daily Online*:

Confucius institutes provide Chinese-learning-related courses and programs, such as Chinese language teaching at all levels, professional training for university, secondary and elementary school Chinese teachers, tests for a certificate of Teaching Chinese as a Foreign Language, Chinese competitions, consultations for further Chinese studies in China and introductions to Chinese culture (29/04/2006).

Each Confucius Institute is set up through a partnership between a Chinese university and a university in the host country (*Asia Times Online*, 17/05/2006). The three Confucius Institutes opened so far in Australia, for example, are partnerships between Zhejiang University and the University of Western Australia (located in Perth), Nanjing University and the University of Melbourne (located in Melbourne) and Shandong University and the University of Adelaide (located in Adelaide).

All Confucius Institutes are coordinated through the Confucius Institute Headquarters in Beijing which is responsible for formulating rules and regulations, assessing applications for establishing new institutions, approving annual programs and budgets and providing teaching and management staff (*People's Daily Online*, 10/04/2007; 13/12/2007).

There are currently over 260 Confucius Institutes in 75 countries and regions (*People's Daily Online*, 30/07/2008; 27/08/2008). In addition, NOCFL established a radio-based Confucius Institute in December 2007 in cooperation with the State Administration of Radio, Film and Television, Confucius Institute Headquarters and China Radio International. This broadcast Confucius Institute offers Chinese language teaching programs via both wireless and online broadcasting in 38 foreign languages (*People's Daily Online*, 06/12/2007a). An online Confucius Institute has also opened (www.confuciusinstitute.net).

Thus far, China has spent a total of US\$26 million on the Confucius Institute project (*People's Daily Online*, 11/12/2007; 12/12/2007) and has plans to expand it further in the near future. It aims to have established 500 Confucius Institutes by 2010 and 1000 by 2020 (*People's Daily Online*, 02/10/2006; 02/01/2007), and plans are also underway to set up a television-based Confucius Institute (*People's Daily Online*, 06/12/2007a).

5.3 Volunteer and State Sponsored Teachers

Also in 2004, China begun recruiting volunteers for Chinese language teaching positions overseas under the Program of International Overseas Volunteer Chinese Language Teachers (*People's Daily Online*, 06/06/2007). These volunteers are mainly undergraduate, graduate or recently graduated students and receive an allowance of US\$400-600 per month for

teaching Chinese in primary or high schools (*People's Daily Online*, 07/04/2006). From the inception of this program to the end of 2006, more than 2000 volunteers had been sent to 34 countries, including Thailand, Singapore, the USA, and various African nations (*People's Daily Online*, 08/10/2004; 07/12/2005; 07/04/2006; 20/03/2007; 06/06/2007).

In addition to volunteers, China also sends state sponsored teachers to teach Chinese around the world. These teachers must have a university degree, Putonghua (Mandarin) level of 2A or higher, be under 55 years of age and speak the language of the country in which they will teach. They must then pass a foreign language test, a general test covering expression, psychology, speech, personality and appearance, and a professional skills test involving performing a teaching task (*People's Daily Online*, 07/04/2006). Those who satisfy these requirements will teach in a university or college and receive between US\$1200-1500 per month from the Chinese government. In 2006, 1004 state sponsored teachers were sent to some 80 countries (*People's Daily Online*, 07/04/2006; 20/03/2007; 22/03/2007).

5.4 Chinese Bridge Chinese Proficiency Competition for Foreign College Students

NOCFL also runs an international Chinese language competition called the Chinese Bridge Chinese Proficiency Competition for Foreign College Students, or Chinese Bridge for short (Kane, 2006, p. 18). Preliminary rounds are held in individual countries all around the world with semi-finals and finals held in China. Winners receive the title of Chinese Language Envoy and scholarships to study in China (*People's Daily Online*, 25/07/2006).

Similar to China's other promotional activities, Chinese Bridge has the explicit objective of "expanding exchange and cooperation between China and the rest of the world" (*People's Daily Online*, 04/05/2008). Seven competitions have been held since Chinese Bridge began in 2002 with themes such as "China in the New Century" (2003), "China: A Multinational Country" (2006) and "Olympic Excitement, Chinese Fun" (2008) (*China Daily Online*, 12/12/2003; *People's Daily Online*, 19/07/2006; 04/05/2008).

6. Results of China's Promotion of Chinese Language Learning

According to Harris (2005, p. 491), China's soft power is not only growing but also becoming increasingly noticeable throughout the world. What then can be said about the results of China's promotion of Chinese language learning as one aspect of its soft power strategy?

There is certainly evidence to suggest that the promotion of Chinese language learning has been successful in creating a positive image of Chinese and attracting learners. Commonly cited statistics say that there are currently 30-40 million people learning Chinese around the world (*People's Daily Online*, 10/03/2006; 19/09/2006) and it is by no means difficult to find examples of the increased popularity of Chinese language learning in individual nations. In Russia, 10 000 people are enrolled in Chinese language programs (*People's Daily Online*, 21/03/2007) while in Spain more than 5000 students are undertaking Chinese language studies across 30 universities and a second Confucius Institute opened in late 2007 at the University of Valencia (*People's Daily Online*, 30/11/2007). Italy also established its second Confucius Institute in 2007 (*People's Daily Online*, 21/12/2007).

Egypt presently has the greatest number of students studying Chinese out of all African countries, with three of the country's universities already having Chinese language departments and a further 11 planning to establish them. According to the Egyptian Ministry of Education, Chinese is also the second most popular foreign language in high schools (*People's Daily Online*, 07/11/2006). Egypt has also established two Confucius Institutes, the first at Cairo University and the second at Suez Canal University (*People's Daily Online*, 19/03/2008; 02/04/2008).

In America, 800 universities, or over 25% of the total, have Chinese language courses (*People's Daily Online*, 12/05/2006) and, according to the Society of Modern Language Research, the number of primary and high school students studying the language rose from 33 000 in 2002 to 50 000 in 2006 while the number of college students increased from 24 000 to 35 000 (*People's Daily Online*, 21/06/2007). Approximately 100 schools teach Chinese in Britain (BBC website, 16/02/2007) and the number of college and university students studying it as their main subject doubled from 2002-2005 (BBC website, 09/01/2007). Brighton College in England's East Sussex also recently became the first school in Britain to make Mandarin Chinese compulsory (BBC website, 25/01/2006; 16/01/2006).

Student numbers in South Korea have increased dramatically as well. Currently 160 000 high school and university students are studying Chinese, which represents an increase of approximately 60% from five years ago (Kurlantzick, 2007, p. 117). In Japan over 20 000 high school students study Chinese in more than 500 schools and the country has 12 Confucius Institutes (Hanban website, c; *People's Daily Online*, 13/07/2006). In Central Asia, Confucius Institutes have been set up in Uzbekistan and Kazakhstan (Kurlantzick, 2007, p. 199; *People's Daily Online*, 06/12/2007b) and in 2006 some 40 secondary and university Chinese language teachers from Kazakhstan, Kyrgyzstan and Uzbekistan went to Lanzhou University in China's Gansu Province for a month long training course in Chinese language and teaching methodology (*People's Daily Online*, 30/06/2006).

It is therefore reasonable to say that China's efforts have contributed to creating a situation in which Chinese is seen "as providing a kind of popular cachet, the way English long has" (Kurlantzick, 2007, p. 116).

However, even in situations where such a perception exists, there still may be obstacles to Chinese language learning and therefore China's soft power. Wang (2007) for example points out that Chinese language teaching in the USA is hampered by a number of policy, resource and organisational problems despite high levels of demand to learn the language while Liu & Lo Bianco (2007) outline a number of issues exacerbated by the increasing popularity of Chinese language learning in the Australian context such as grouping learners, continuity of programs across different levels of schooling and catering for background learners.

There is also much that could undo the promotion of Chinese language learning. Scholars such as Gordon Chang (2001) have argued that China faces a multitude of serious problems which could well overwhelm it. As much of China's soft power depends on its economic and political prominence, if China were to lose this for any of the reasons suggested by such scholars, or for reasons that have yet to be foreseen, there is likely to be a significant decrease in the desire to learn Chinese. The appeal of learning Chinese could also decrease as people become more familiar with China's problems and as some of these problems, such as pollution, organised crime and support for authoritarian regimes in other nations, begin to affect people outside of China (Bergsten et al., 2006, p. 9; Kurlantzick, 2007, p. 230). A parallel could be drawn here with the decline in interest in Indonesian language studies in Australia as a result of recent political events, for example the Bali bombings, and economic events, like the Asian financial crisis, and their effect on Australia's relationship with Indonesia (Slaughter, 2007, p. 319).

Therefore, although China's efforts to promote Chinese language learning have contributed to a positive image of the language and attracted learners in significant numbers, which is likely to be helpful in achieving its goals, there are still many obstacles that stand in the way and it is by no means certain that these gains will last forever.

7. Conclusion

This paper has set the promotion of Chinese language learning within the context of China's soft power strategy. It has shown that the Chinese government has established a range of institutions and infrastructure to promote Chinese language learning throughout the world and that these efforts have met with some success in creating a positive image of the Chinese language and attracting learners. Such efforts look set to continue into the future, although their direction and outcomes in the longer term remains to be seen.

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The Decomposition-combination Structure of the Chu Art in the Visual Field of Liuguan

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Abstract

The writing technique of the decomposition-recombination structure in the arts of the Chu state is based on the aesthetic orientation of Tao and the aesthetic attitude of “Liuguan”, which has constructed the aesthetic approach different from the other types of art. The aesthetic control of “Liuguan” has produced the artistic favor and flexibility. This text focuses on the formation bases of the decomposition-recombination structure and gives a further discussion of its unique features of the arts of the Chu State.

Keywords: Tao, Liuguan, The art of Chu state, Decomposition-combination structure

1. The aesthetic orientation of Tao

The Chu state in the late Spring and Autumn period had conceived the Taoist school, which has produced a vital impact on the Chinese culture. Lao Tzu, the representative, and his *Moral Classics* have affected the spirits of many generations. Setting aside the barrier of the time, Lao Tzu of the East and Hegel of the West have something similar on the issue of the world primitive. The former thought that Tao is the primitive of the universe while the latter used absolute idea to refer to the world existence. In view of this, Hegel, the great master of Western philosophy, to some degrees, is the successor to Taoism, which lasts thousands of years. Hegel once said that the thought of Lao Tzu is extremely rich and Lao Tzu is the representative of the spirit of the ancient East. Nietzsche also said that the thought of Lao Tzu “is like an unexhausted well full of treasures. It is easily to get with a barrel”. (Xiong). Tao is the core of Lao Tzu philosophy. In his eyes, Tao has no distinct forms. It is a transcendent ontology, which creates the universe. That is to say, it is the intangible Tao that gives life to the numerous things.

Tao has produced a far-reaching influence on the way by which the ancient Chu people viewed and grasped beauty. The bizarre imagination and the romantic artistic demonstration uplifting life freedom are all inspired from Tao. Tao belongs to the scope of sense. However, it is far beyond what is sensed. When the Chu people witnessed the aesthetic object, they let their instant intuitive feelings tune in to the profound inner world, tasting to get the various provisions from the invisible Tao out of the external world. So people can appreciate the spontaneous freedom and comfort in the imagination of beauty. The Chu people used their free soul to feel various images in the experiential world and expanded their inner association to boundless imagination to conceive an artistic pattern with the co-existence of nature, the earth and man to indicate the realm where the werden of all the things and the surging emotion have clashed then integrated. In such artistic atmosphere, it is not difficult to understand the beauties in the Odes of Chu, holy but odd, who were all in love with the ordinary people. It is also easy to understand the *jamais vu* for some strangeness of the dermatoglyphic ornamentation of the Chu’s lacquer ware after it is decomposed and recombined. It is much easier to grasp that the unusual artistic expression is based on the affirmation of the spirit freedom.

As to how to materialize the objects of aesthetic concern into the artistic works, Lao Tzu’s idea, “Doing Nothing Will Lead to Accomplishing Anything”, is of the guiding significance of art practice. Mr. Chen Guying once interpreted it as “if there is no *chutza*, nothing cannot be achieved”. (Chen, 1984, p.34). Indeed, to achieve some purposes, people are on one hand subject to the law. But on the other hand, they should do something active to break the bondage to display the existence of the creation. The lifelike Chu art is from the recognition by observing the universe. However, the Chu people believed that the morphology of beauty is not only the outer aims but the inner pursuit for freedom that people have sought. They are inseparable and exist in each other. The natural aesthetic approaches make the Chu people’s aesthetic concern not subject to the world images. Although the fantastic concern does not expect to reproduce the real natural world, any irrelevant artistic expression will not be accepted by the Chu people. The “Doing Nothing” with a purpose and “Undoing Nothing” with deliberation make the Chu art put the inherent emotional conflicts on the new re-constructed images. The new morphology is not the representation of the natural form but the isomorphism of the heart or imagination and the natural images. Therefore, the Chu people had pursued the freedom of inner experience in the inevitability of the provisions and the self-realization without violating the laws of the nature. Different from the

concept of freedom of the classical Greek art in the same historical period, the way by which the Chu art reproduced the external world is not to confirm man's degrees of freedom by vivid material form but to concern the world with their cheerful emotion. Tao had affected the aesthetic concern of the Chu people while the aesthetic approach of Liuguan had further deepened its existence.

2. The basis of "Liuguan"

We can know the meaning of "Liuguan" by interpreting its literal meaning. "Guan" has its other implication if going back to its origin. In the ancient times, it refers to the high-terrace buildings. It has evolved and lost its meanings as an architectural term. It is one of the ways to stand at a Guan, the viewing building, and overlook the things of the world. But here "Liuguan" has nothing direct with that. But ascending a height to enjoy a distant view will undoubtedly have some influences on the formation of "Liuguan". Its object lies "in the boundless universe and among the rich categories of things". (Wang, 1994, p.248). So the approach of viewing in the visual field of "Liuguan" has its basic features of dynamically grasping the aesthetic object in the whole world of images.

Let's go back to talking about the writing noumenon of the Chu art. The "Liuguan" of free spirit gives direct impact on their aesthetic object. The Chu people in a visual field of the heaven and the earth sought the performance of the beauty in the rheological universe. They did not focus on individual things but grasp the universe in the changes. There are words in Li Sao, saying that "I have visited everywhere and traveled all the heaven then come down to the man's world". The Nine Chapters writes that "I have overlooked as far as I can and tried to view everywhere." These lines express that the Chu people had shaken off the fetters of the specific matters with their gnosis for the life transference and free inner experience. Apparently, while viewing the world images, the aesthetic perceptual form is larger than the congregation of the images of the sense. The so-called "Liuguan" refers to the aesthetic control not confined to individual things. It has brought a free space for the Chu art creation. Thus, the internal imagination of Chu people had gained catharsis to the hearts' desire.

Wang Yi of the East Han dynasty in his Preface to Jiu Ge wrote that "Chu is a country where people believed in gods and temples. When festivals were held, they would sing and dance to please gods". (Hong, 1994, p.248). The original witchcraft filled the entire country. When on the festival of offering sacrifice, the Chu People got the emotional catharsis in the ritual dance thought they were still rational. It is far different from the worship and cult of the complete barbarism in the ancient times. "They are the Chu people, who believe in gods and themselves too. They thought that they could communicate with the spirits or gods. So despite living in a world full of spirits or ghosts, they usually felt comfortable and at ease." (Zhang, 1987, p.119). In such a mythical atmosphere with strong passion and reason, various restrictions had disappeared and the Chu art had got its free state of artistic creation.

Living with a strong idea of witchcraft and myths, the Chu people, in order to create a free inner world, made all their material wishes and expectations which reflected the internal emotional experience away from the specific things in the experiential world, regardless of the specific images they tried to copy, to express their free wills by means of the endlessly rheological nature. It is different from what Confucius disciplined that individual purpose should be realized according to Li, the ritual. The logical starting point for the Chu people to understand the world is based on "the coexistence of nature, the earth and man and the unification of all the things and man". (Chuang, 1982, p.30). The Chu People do not attempt to separate man from the things in the rheological universe. The purpose of man's exploring the natural origin is that man and nature can coexist more harmoniously. Chuang-Tzu said that "to travel beyond the world by taking clouds and riding the sun and the moon." (Chuang, 1982, p.30). Chuang-Tzu fully affirmed that man had the same unlimited power as the universe. Moreover, he was more affirmative about the ambition to travel the world in an unconstraint way. This is the aesthetic attitude of Liuguan and the basic direction of the Chu artistic creation. It goes without saying that although the Chu people have the same power as the universe has, they do not mean to fight against nature but to harmonize the unlimited vitality with all things in the universe to confirm the omnipotent artistic creation. It is easy to see that it is only in the field of art creation that the Chu people had achieved their purpose by means of the mighty of nature which they couldn't get on their own. The Chu art is full of the internal free spirit and external natural forces, just like Yin and Yang supplementing each other, as confirms the active and enterprising spirit of the Chu art. Therefore, when the Chu people sought for the aesthetic object, they had never pay the aesthetic attention to some static and specific objects. All that could reflect the details of life, the endless weather changes could be used to build the palace hall of the Chu art.

To sum up, when the Chu people appreciated and grasped the aesthetic object, they wouldn't be fettered by the patriarchal ritual. If they were interested in the humankind, they would never take into account the grading system and put life in the ritual order to make it function like a clock. The Chu people felt the freedom of life when constructing the integration of man and nature. Their original, spontaneous, and free spirit made people adopt the aesthetic attitude of Liuguan while they perceived the surrounding, employ the way of apprehending and imagining to get the subject matters in the real life, and use little pure and rational in-position viewing to grasp the object. Therefore, aesthetic Liuguan has laid the formation bases for the Chu art.

3. The visual show of Liuguan

The aesthetic sense of Liuguan has permeated with Chu art. The decomposition-combination structure is the unique writing technique of the Chu art, especially its ornamentation of lacquer ware. It did not follow the approach that Shang and Zhou dynasties adopted to deal with the lacquer ware and bronze ornamentations. They decomposed and recombined these ornamentations, then arranged the individuals according to the space and shape of the utensils. Take the ornamentation of phoenix in the Chu lacquer ware as an example. The old ornamentations of the phoenix are decomposed, the head, the two wings left linking to the traditional decoration. The re-combined emblazonments do not completely discard the old pictures, which is the basis of the decomposition-recombination structure. The new emblazonments display the vehemence of flying in the air by means of geometric vortex. Meanwhile, the decomposed phoenix is partly integrated into the abstract ornamentations to express new meanings. The special distribution does not follow the common symmetry in bronze, or adopt the casual uncontrolled padding, but form the new and flexible pictures according to the size of the space. It is like a kaleidoscope. The real prototype is broken, fragmental but colorful. As long as another angle was turned to, the broken pieces will again become another new shape. Obviously, it has de-familiarized the "alienation" that people have known well, as makes people feel exotic but fresh out of the numerous constraints, and enter a vast and broad realm full of emotional freedom, indicating that people can display their capacities of easily dealing with the world. Therefore, in the recombined forms, the abstract vehemence can be seen in the emblazonment decomposed-recombined. And the ever familiarized concrete images can be viewed in the abstract whole. In the recombined forms, the abstract whole and the partial concrete images are integrated to produce a cosmic sense of that the universe is filled with atmospheric cyclotron and life freedom. From the overall situation, the decomposition-recombination structure has the daring and ambition of holding everything and seeking the integration of the whole and the part in the rheological change. As far as the details are concerned, it thoroughly gets rid of the fetters of imitation, blurs the boundaries of reconstruction and manifestation, and highlights the expressive capacity of emotion. With the aesthetic control of Liuguan, the boundaries of nature, earth and human are well eliminated. The aesthetic pleasure it has produced is not phobic or painful, thought accompanied by wonderment. It has least the religious and mysterious meaning in the "nobleness" admired by the West. It is a kind of beauty, encouraging and high-spirited, which clearly affirms man's freedom and greatness.

What is interesting is that the tiger-seated flying bird as a woodcarving similarly demonstrates what the decomposition-recombination structure functions in the three-dimensional modeling. According to Feilian, God of wind, the integration of the three has symbolic meaning established by usage. "Why the bird and the beast is used to indicate the wind is that the wind has the attribute of a bird and a beast. Birds can fly and so does the wind. Why the wind is said to have some bestiality or be of the same type of the tiger is that it is sometimes fiery and can destroy the houses. The antlers are stuck on the flying bird which symbolizes God of Wind, signifying the lucky wind." (Guo, 1991, p.187). As how to turn these implied meanings into the artistic entity, the decomposition-recombination structure becomes the most appropriate way. Only through examining the modeling images, the tiger and bird are integrated organically by the thinking of decomposition and recombination. The bird is standing on the back of the tiger with cloud pattern. Such a martial and soared big bird is of symbolic meaning and embodies rich imagination. However, what is incredible is that the strange and mysterious bird wings are made with antlers full of tensile force. The two antlers are stuck in the bird, seeming to be flying in the sky. So they have more visual appeal than the ordinary bird wings. Although the tiger-seated flying bird has the definite moral established by usage, how to model is a question the composer must confront with. The bird, the tiger and the antlers, irrelevant one another, are put together. Any carelessness must result in farrago. It needs the coordination of the law of the decomposition-recombination structure to reconstruct them with great imagination. Replacing the wings of the flying bird with the antlers is not the rigid regulation but the need of the decomposition-recombination structure because the real antlers keep the permanent existence of the original form. When the antlers are struck in the bird, they have displayed a more magnificent new image, soaring into the sky. From the angle of pure modeling, if the tiger-seated flying bird is fitted with the bird wings, except that big space is occupied, there is no room for imagination left, thus losing the mysterious connotation of spiritualism. The antlers have got rid of the perplexity of the physique space. The original bird wings have been reduced to the minor importance and they only played a role of balance. Therefore, the antlers are the substitute of imagination, and of the unexpected wonderful visual effect.

Although there are the same ornamentation of the phoenix and the same technique of decomposition-recombination structure, the woven and embroidered silk in No.1 tomb of Chu in the Warring States, found in the Mashan of Jiangling, has other different interest and charm. Due to the different materials and creating techniques, although the same creative approach is adopted, different types of style will be produced. From the overall layout, the woven and embroidered ornamentation of the silk mostly adopted the symmetrical composition, reflecting an identical typical tendency. But there is some individual modeling of the ornamentation demonstrating the features of the decomposition-recombination structure. In the seventeen decorative patterns of phoenix, except the head, there are almost no similarities in the other parts, as has attracted the eyeballs of many people. There are phoenixes with three heads and spread wings, or with

abstract geometric ornamentations of double wings and double legs. And there are bird patterns out of the other decorative patterns. Such a type of things can be summed up by the way of recombination. Actually, it is only by the way that imagination can be shaped into the reality. Thus, the Chu people had maintained the aesthetic attitude of Liuguan while they used the technique of the decomposition-recombination structure.

To sum up, the decomposition-recombination structure does not include all the artistic methods of creation. However, it fully displays the characteristics of the aesthetic Liuguan of the Chu people. The phoenix ornamentations of the three different types prove that it is not hard to find the decomposition-recombination structure which can change imagination into the graphic symbols does not purely depend on Liuguan. When “to see” is changed into “to be seen”, to control the aesthetic object by means of Liuguan is the basis for the decomposition-recombination structure. Therefore, as a unique artistic technique, the decomposition-recombination structure is inseparable from the viewing paths.

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Unintended Consequences of Micro-Credit in Bangladesh: An Evaluation from Human Security Perspective

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Abstract

With the objective of evaluating the performance of micro-credit and its impact on poverty reduction in Bangladesh from a human security perspective, this paper identifies three unintended, yet fundamental, consequences: the exclusion of the hardcore poor from the program, producing hardcore poverty through irresponsible operation and the erosion of the value of charity. Embracing the norm of human security in micro-credit would be helpful in addressing these counter-consequences. This would require NGOs to redesign micro-credit operation in order to include all the poor, to develop social safety nets for the borrowers so that they are not pushed downwards in times of lose, and to identify alternative sources of fund so that the NGOs can continue providing charitable welfare services for the poor.

Keywords: Micro-credit, Unintended Consequences, Human Security, Exclusion, Hardcore Poverty, Values of Charity, Bangladesh.

1. Introduction

Recently micro-credit program, particularly the Grameen Bank model in Bangladesh, has become enormously popular in the development discourse owing to its apparent success in poverty reduction. The greatest accolade for micro-credit has come about with the declaration of 'Nobel Peace Award-2006' which is given jointly to Dr. Muhammad Yunus and Grameen Bank for micro-credit's contribution in poverty reduction and hence world peace. Many people are likely to be surprised for micro-credit being awarded Nobel peace award for its economic contribution in poverty reduction. But the development discourse, particularly human security perspective, has recently identified poverty as a root cause behind various kinds of deprivation that lead to terrorism and violence. Thus, poverty reduction is conceptualized as contributing to sustainable peace for the world. Hence the Nobel peace award to micro-credit and its architect Dr. Yunus. However, critics of micro-credit have questioned the manner in which micro-credit programs work. The most common charge is that while the richest of the world- top-notch corporate can get loans at interest rates as low as two to three percent, the poor rural women can only access finance at 18 to 24 percent. It is also claimed that the loan providers coerce the borrowers to repay the installments without considering any emergency. The objective of this paper is to evaluate the performance of micro-credit and its impact on poverty reduction in Bangladesh from a human security perspective. Special attention is given to the unintended consequences of micro-credit operations with an aim to propose few practical solutions in order to improve micro-credit's capacity in poverty reduction and ensuring human security. Since all the NGOs in Bangladesh by and large follow Grameen Bank's micro-credit model, the analysis is primarily based on Grameen Bank and its micro-credit operations.

2. Theoretical Framework

Helping the poor has long been regarded as a humane value. Most of the philosophies, including all world religions, place greatest values in activities that aim to help those who are in need of help to overcome problems related to their survival. Since the poor are deprived of the most fundamental rights as human beings, to help them grow out of the poverty-trap has been espoused as the goal of the whole development discourse. And consequently, those devoting their efforts in poverty alleviation are greeted with honor and prestige in human society. Micro-credit is perhaps the latest weapon in the existing arsenal to fight against poverty. Its contribution towards poverty reduction throughout the developing world has been recognized over the last decade. However, poverty is still found lingering in several parts of the developing world where micro-credit has been operating. This calls for a critical examination of the whole range of consequences that micro-credit produces in its area of operation.

Basing on a critical evaluation of peace keeping operations worldwide, Aoi *et. al.* (2007) argue that all interventions in human society produce both positive and negative consequences. While positive results are always appraised and desirable, the negative ones undermine the ultimate goal of these operations despite the fact that those effects are unintended. Therefore, they urge for an understanding of why and how unintended consequences result and how to improve strategies to tackle these undesired outcomes effectively. From a complex system perspective, they share the idea that human society is essentially a complex set of “non-linear relationships” and therefore, unintended consequences are only understood within the context of “dynamic, non-linear, complex system that is constantly self-regulating through multiple feedback mechanisms” (2007:11). Thus, unintended consequences are conceived as “natural outcomes” of any action. This makes any attempt to infer results from the intentions and expectations difficult, if not impossible.

Among the array of reactions to a particular intervention, Aoi *et. al.* (2007) define unintended consequences as “all those reactions that fall outside the scope of the response we wanted to elicit” (2007:6). Therefore, they differentiate between unintended consequences- the impacts that are not anticipated when a mandate is made- from intended consequences- the impacts for which the mandate is meant. They further single out unintended consequences from a “failure to achieve the intended consequences” and “mixed motives” of the actors involved (2007:8). They argue that unintended consequences are not fundamentally destructive and observe three different types of unintended consequences with regard to their impact: those that have positive impacts, those that are neutral, and those that have negative implications. They stress mostly on those unintended consequences that have harmful impacts, because such consequences may cause difficulty in achieving the intended goals, weaken the concept in operation, and may even undermine the legitimacy of the organization involved.

This approach recognizes a moral and logical fallacy: that since aid may do harm, a decision not to give aid would do “no harm”. However, it goes beyond this proposition and argues that intervention with assistance should be there, because the outcomes of interactions between external aid and local communities are predictable. As such, what we need to do is “to explore ways in which we can improve our ability to anticipate and counter potential negative unintended consequences” (2007:17).

3. Human Security, Poverty and Micro-credit

Human development report 1994 by UNDP is the first to make the specific claim that individuals should be the referent of security instead of the states since state’s security has become less vulnerable while that of individuals suffers even by their own state. Consequently, it proposes human security in terms of the safeguards against “the threat of global poverty traveling across international borders in the form of drugs, HIV/AIDS, climate change, illegal migration and terrorism” (UNDP 1994, p. 24). Looking at the strong correlation between poverty and terrorism in the third world, UNDP conceptualizes poverty as a structural cause of terrorism and hence a threat to security and world peace. The concept of human security, as UNDP develops, is built on four essential characteristics: universalism, interdependence of components, prevention rather than protection, and centered on people.

The UNDP report identifies seven potential sources of threats that include most, but not necessarily all, aspects of human security: economic security, food security, health security, environmental security, personal security, communal security and political security (UNDP 1994:25-33). The final argument of the report is that the root causes of all these threats to human security lies in the structural context of societies that provoke conflict, such as resource scarcity, low level of economic growth, inequitable development, and the impact of structural adjustment, in a word- “poverty” (Kong and MacFarlane, 2006:152). Accordingly, sustainable development has been espoused as the ultimate solution to conflict resolution and to ensure human security. At this point enters micro-credit program particularly that of Grameen Bank in Bangladesh which has successfully claimed its contribution in upholding human security through poverty reduction.

In 1976, Dr. Yunus founded the Grameen (a Bangla term meaning Village) Bank Project in Bangladesh for the purpose of offering micro-credit to the poor in rural Bangladesh. He organized this “socially conscious capitalist enterprise” in accordance with the following three principles:

- (1) Loans were to be repaid, and on time.
- (2) Only the poorest villagers (the landless) were to be eligible for loans.
- (3) Lending would primarily be to women, because women were socially and economically the most impoverished, and because the immediate beneficiaries of loans to women were generally their children.

In 1983 the Grameen Bank Project was transformed into a private independent bank- the Grameen Bank (GB) - by a Government Ordinance giving GB status of social welfare organization and hence, immunity from certain standard banking regulation by the government. According to the official Grameen Bank Website, the GB currently has 1,658 branches operating in 57,791 villages with a total staff of 14,989 as of 2006. The GB serves over five million borrowers

(96 percent are women) and has a loan recovery rate of 99 percent. Borrowers of GB own 94 percent of the total equity of the bank. Over 64 percent of these deposits come from the GB's own borrowers.

The standard Grameen Bank (GB) loan process is as follows (Note 1):

- A) To qualify for a GB loan, a borrower must demonstrate that her family assets fall below a certain threshold set by GB.
- B) A GB borrower is not required to put up collateral. Rather, she must join a five-member group of GB borrowers, attend a weekly group meeting, and encourage "loan discipline" within the group. This loan discipline includes the assumption of responsibility for the GB loans of all of her group members, and adherence to "sixteen decisions" such as keeping families small and not accepting (or paying) a dowry for a son's (or daughter's) wedding.
- C) A GB borrower's continued access to GB credit is conditional on prompt loan repayment by all of her group members.
- D) Most GB loans have been for two years periods with an annual interest rate of 20 percent (calculated on a declining principal), which is about four percentage points above the commercial rate in Bangladesh for similarly structured loans with collateral.
- E) GB never forgives loans, although it restructures them (extends their maturity) when necessary; and no free services are provided.

In spite of the enormous celebration of Grameen micro-credit program in fighting against poverty, a realistic evaluation would notice some undesired and unacceptable consequences of this program, too. With an intention to overcome such problems effectively, it is essential to identify those unintended consequences of micro-credit.

3.1 Excluding Bottom Poor (Note 2)

Before granting loan, creditworthiness of a potential borrower is determined by three criteria which are collective known as 'Three Cs of Credit'. These are following:

- (1) *Character* -means how a person has handled past debt obligations: From credit history and personal background, honesty and reliability of the borrower to pay credit debts is determined.
- (2) *Capacity* -means how much debt a borrower can comfortably handle. Income streams are analyzed and any legal obligations looked into, which could interfere in repayment.
- (3) *Capital* - means current available assets of the borrower, such as real estate, savings or investment that could be used to repay debt if income should be unavailable.

(Grameen Bank Website)

Therefore, it becomes evident that an individual must have some material possessions as well as social connections that define her as reliable, capable and able to repay from her own resources if her micro-business enterprise fails. Thus, the 'bottom poor' who "does not have needed assets, social relations and self-confidence" are excluded (Develtere and Huybrechts, 2005:175). In fact, only the relatively richer among the poor can qualify as creditworthy in this program.

3.2 Producing Hardcore Poverty

Grameen micro-credit paradoxically produces hardcore poverty within the relatively richer poor who get involved in it. A careful analysis of the economic activities of the borrowers, who are almost exclusively female, would clarify this point. The borrowers' major economic activities include poultry raising, animal husbandry, homestead gardening, small-scale trading and non-farm services (Ahmed *et.al.*, 2007). The market of these products in most rural areas in Bangladesh is only emerging, if not totally non-existent. Furthermore, all these informal economic activities are vulnerable to frequent natural disasters. Given the incipient market, disaster risks and women's limited access to the market due to the patriarchal social structure, very often the newly emerging poor female entrepreneurs experience loss in their economic endeavors. Then what happens to those losers? Sharif (1999) identifies five strategies that those unlucky women usually follow to cope up:

- (1) Borrowing from moneylenders,
- (2) Using savings or selling assets,
- (3) Reducing existing consumption level (know as tightening the belt)
- (4) Negotiating to reschedule the loans (but rarely succeed),
- (5) Simply default.

The net result of these strategies is a grim future for the failed entrepreneurs. A significant fraction of them are dropped out from the program (of course, after repaying loans anyhow). The annual rate of drop out was 15 percent in 1993 by a Grameen Bank estimate (Grameen Bank, 1994). This means at least 15 percent of the relatively richer poor who join

micro-credit program are pushed downwards to hardcore poverty. And surprisingly, there is no further data about the drop out rate garnered by Grameen Bank or any other NGO operating in micro-credit.

This poverty producing mechanism with the structure of micro-credit is best explained by Anu Muhammad, a prominent Professor of economics in Bangladesh. From his participation in several village studies on micro-credit in different part of Bangladesh, Muhammad (2006) summarizes some essential features of micro-credit. These are as follows: (a) its tiny amount keeps its use in limited areas mostly in retail trade or reinvest in credit market with higher interest. (b) The borrower of micro credit does not have to show any collateral but s/he has to be accountable to the group s/he belongs. (c) The borrower receives the amount minus some savings, about 10 per cent, and has to repay the loan in weekly installments with interest of around 20 per cent of the total. (d) Since more than 20 per cent return on the loan amount is essential to keep repayment regularly for every week, every month and every year without any break, if anything happens to break the payment or if the borrower cannot earn more or at least equal to the repayment amount, s/he becomes defaulter, which has chain effect. (e) It is assumed that, *ceteris paribus*, as standard practice in economics, other things remain same, meaning everything will be favorable for weeks, months and years. No natural disaster, no accident, no sickness. Reality does not follow this. If anything much less than above happens, the repayment gets stuck. That happens for the majority. (f) Further hidden assumption is that the property relations, power structure, market process all favor the poor, which is proved completely wrong. (g) For every breakdown of the wrong assumptions the borrower faces helpless uncertain and burdened situation. Defaulters therefore are on the rise among the poor who are compelled to take new loans from other sources at higher interest rates.

The stunning repayment rate of micro-credit, 99 percent, is presented as a sign of success of the women borrowers with the conviction that it is their successful entrepreneurial efforts that helps them make profit and repay loans. Otherwise, how come these poor women continue repaying the weekly installment of their loans? Karim (2008) identifies the answer to this question through her ethnographic village study in Bangladesh. She observes that “the honor and shame codes act as the collateral of these loans. It is the honor of the family that is at stake, and which the woman represents. If the woman gets publicly shamed, both by the group of borrowers and the NGO staff, the family is dishonored. In a face-to-face society, men and their families try to maintain the sanctity of their family honor by observing the honor of their women”(2008:10). This forces the borrowers to repay the loan by all means. This often results in selling out the family properties, or taking more loans from other lenders.

The ultimate result of taking micro-credits for several borrowers, hence, is further pauperization and shrinking towards hardcore poverty.

3.3 Elimination of Charity from Social Welfare

A special editorial of the Daily Ittefaq (Note 3) on December 11, 2007 identifies a qualitative change among the NGO community in Bangladesh. It is observed with regard to NGOs' approach after an enormous natural disaster in Bangladesh that NGOs have moved far away from their original goal of providing welfare towards profit-making out of their programs.

The devastation by the cyclone 'Sidr' on November 15, 2007 is unprecedented in the history of Bangladesh: houses, crops, poultry and cattle, vegetation- literally everything is washed away in 12 South and South-Western districts. People could barely save their lives by taking shelter in cyclone centers. According to a World Bank estimate, the total amount of damage is approximately US\$3,043,480,000. However, none of the NGO organizers visited the cyclone-affected regions after the disaster. Contrarily, all the NGOs became more concerned about the repayment of loan rather than engaging in relief works (Note 4).

In spite of the massive criticism from every section of society in Bangladesh, NGOs continued to force their borrowers for repayment which was inconceivable of the welfare providers. However, NGOs- particularly medium and small NGOs- claimed that they could not afford delaying of repayment or writing off the loans, since they also borrowed the fund from other commercial banks and large NGOs, and their organizational functions including staff's salary depended mostly on the profits earned by micro-credit operations (Note 5). As such, they took shield under the special act 1983 which gave micro-credit program immunity from government regulation. So, the government could do nothing either to push the NGOs into immediate relief works or to save the devastated people from the coercive pressure by these NGOs. Several people started fleeing to other villages to escape the field-staffs of NGOs; even few incidences of committing suicide appeared in national media. The problem was finally solved for the moment when the Chief of Armed Forces of Bangladesh threatened the lenders and all NGOs declared recollection of loans postponed for next six months and some large NGOs declared partial writing off of loans (Note 6). However, eight months after their promise, Action Aid Bangladesh has found that none of those promises have been delivered and the NGOs have kept on squeezing the borrowers for repayment (Note 7).

4. Conclusion and Recommendations

Three fundamental problems within the structure of micro-credit program are identified in Grameen micro-credit program in Bangladesh. *First*, a human security approach demands that every individual must be incorporated and

assisted to be empowered by development assistance. However, Grameen micro-credit excludes a significant proportion of the dispossessed people who live below certain level of poverty and thus fail to qualify as creditworthy. *Secondly*, and more importantly, the ways micro-credit program operates produce hardcore poverty within its own operation. *Finally*, high returns from and greater dependence on micro-credit programs have shifted NGOs' orientation from welfare to business which ultimately undermines the moral basis of NGO operations in particular, and of development assistance in general.

It is evident from the analysis that mere good intension is not enough to ensure sustainable development and peaceful life. Any development intervention naturally generates multiple consequences along with the primary goal of helping the poor. The case has also been proved as true about of the micro-credit operations in Bangladesh. Along with the much celebrated impact on poverty alleviation, micro-credit also produces several other unintended consequences for the people it claims to benefit. A prudent analysis would consider these negative consequences as unintended, and undesirable, too.

Identification of the unintended as well as undesirable consequences is the first step to overcome these problems. However, concrete strategies are needed to improve the performance of micro-credit in poverty reduction. NGOs need to ensure transparency of their operations in order to emphasis the welfare of people. The criteria of creditworthiness that renders micro-credit a failure in including all poor should be abandoned to embrace the norm of human security. Grameen Bank's micro-credit program for the beggars provides is a startling example of how this universal inclusion may be ensured. However, to avoid the unintended consequence of producing hardcore poverty, NGOs must develop social safety net for the borrowers (not only for the lenders by creating different coercive mechanisms to ensure loan repayment) so that they may not turn hapless in the face of natural disasters and thus preventing downward mobility of the borrowers. Most importantly, to prevent diminishing charity-orientation, NGOs must develop alternative strategies for income generation and fund raising for the organization's survival and be prepared to provide emergency services to destitute people without charge so that the moral basis of their existence- charity- is not hurt.

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Notes

Note 1. Available: <http://www.econ.iastate.edu/classes/econ353/tesfatsion/grameen.htm> (retrieved on July 10, 2008)

Note 2. Those who fail to qualify according to these criteria of creditworthiness.

Note 3. The leading Bengali newspaper in Bangladesh.

Note 4. National media in Bangladesh over the months of November and December, 2007 are replete with examples.

Note 5. NGO representatives' arguments with government officials in a meeting on December 14, 2007.

Note 6. The Daily Prothom Alo, December 14, 2007.

Note 7. The Daily Ittefaq, July 03, 2008.



Comparison of Advantages and Weaknesses Among Three Major Urban Agglomerations in China

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Abstract

Several urban agglomerations have formed in China in different size recently, with China's population and economic activities shifting to big cities at large scale, becoming important driving force of economic development. Yangtze River Delta, Pearl River Delta and Beijing-Tianjin-Tangshan Area in terms of high speed of economic development and economic contribution rate are called China's three major urban agglomerations. This article aims to illustrate construction of three major agglomerations and in particular the main advantages and weaknesses.

Keywords: Urban agglomeration, Advantages, Weaknesses

1. The construction of three major urban agglomerations

Yangtze River Delta, Pearl River Delta and Beijing-Tianjin-Tangshan Area are three areas with economic development at fast speed. Yangtze River Delta includes Shanghai, Nanjing, Hangzhou,

Ningpo, Wuxi, Suzhou, and Zhenjiang, among which Shanghai is the core city and play the most important role. Pearl River Delta is composed of Guangzhou, Shenzhen, Zhuhai, Fuoshan, etc. Beijing-Tianjin-Tangshan Area comprises Beijing, Tianjin, Tangshan and the middle region of Liaoning, Hebei, Shandong, Inner Mongolia provinces.

2. Advantages of three major urban agglomerations

Yangtze River Delta, Pearl River Delta and Beijing-Tianjin-Tangshan Area, with its competitive position, achieve impressive economic aggregates comparing to other regions, especially in the field of industrial production, foreign direct investment, volume of importation and exportation, and total number of retail of consumer goods.

2.1 Common advantages of major three major urban agglomerations

2.1.1 Advanced infrastructure and traffic network

In Yangtze River Delta, Many high speed roads which connect Shanghai and Ningpo, Shanghai and Hangzhou, Ningpo and Hangzhou have been established and been used. Besides, Yangtze River Delta is closed with some international shipping deepwater ports of East Ocean, Yellow Ocean and Yangtze River, together with other ordinary ports nearby, forming a developed distribution and transportation system with fast speed and professional coordination. At the same time, better strategy for infrastructure construction in Pearl River Delta has been formulated. That is the establishment of high speed road network centered by Guangzhou. Beijing-Tianjin-Tangshan Area is featured with more than forty ports with different scale. All of its ports have made up of a port agglomeration with sound function, cargo throughput of which account for 40% of the total aggregate in China.

2.1.2 Skillful talent and high technology

A great number of outstanding universities and high technological institutions make sufficient professional and skillful experts available. They have succeeded in many essential researchs and brought with high qualified technical productions, particularly, they pioneer in the areas of microelectronic system, optical fibre, bio-engineering and new material. Beijing-Tianjin-Tangshan Area is also an important region of science and technology research, providing favorable conditions for developing technological industry on the basis of the first-class science and technology institution, the largest number of books and documentation and the technological information center.

2.1.3 Industrial groundwork

All of the urban agglomerations who have taken the core position of national and regional strategies own developed agriculture and industry, possess sound industrial technology equipment and comprehensive competence, so that become the most developed regions in China.

2.2 Different advantages among three major major urban agglomerations

2.2.1 Advantages of Yangtze River Delta

Shanghai as the core city of Yangtze River Delta take the internationalization step forward, Spreading to nearby regions and pushing the economic growth by its huge economic foundation and world-class technology. The reason why Shanghai become the key city is that it own unique location advantage which enable many multinational enterprises to set their headquarters in Shanghai. Moreover, the economic integration is under way. At present, sixteen cities are taking positive measures, including forum on economic progress in Shanghai, Suzhou and Hangzhou, and travel integration system, to realize economic integration.

2.2.2 Advantages of Pearl River Delta

Pearl River Delta push industrialization and modernization by making full use of foreign investment. In terms of attracting foreign investment, Pearl River Delta have its own advantages. Besides, the professional towns and countries, with high operation efficiency and reasonable utilization of resources, develop characteristic industries featured by small firm, big industry, small product, big market.

2.2.3 Advantages of Beijing-Tianjin-Tangshan Area

Beijing-Tianjin-Tangshan Area own richful mineral resources and marine resources, especially being rich in coal, iron and petroleum. Furthermore, Beijing-Tianjin-Tangshan Area as a comprehensive port city have different function and characters. Tianjin is an important port which connect trades between China and foreign countries. Dalian, Qingdao and Yantai also have sound ports. Another huge port with its deepwater and professional skills will be built in Tangshan.

3. Weaknesses of three major urban agglomerations

Although three major urban agglomerations have made great contribution to China's economic progress, they still exist many problems and stand in the way of China's further development.

3.1 Common weaknesses of three major urban agglomerations

3.1.1 Low efficiency of government coordination

Inefficient government coordination lead to pursuit cities' own interests and exorbitant competition among cities, industries which destroy the sustaining development.

3.1.2 Limited capacity as core cities

Apart from Shanghai, other core cities can not exert its influence, and can not push regional economic progress as a guidance.

3.1.3 Lack of division and cooperation

Different cities in one urban agglomeration have the same industrial construction. For example, many cities in Yangtze River Delta select automobile parts manufacture, communications as their main industries. Tianjin and Beijing take steel, electricity and new material as key industries.

3.1.4 Serious environmental issues

Development at fast pace also cause some environmental issues such as worsening quality of water, soil and climate which take adverse affection to social production and daily life.

3.2 Different weaknesses of three major urban agglomerations

3.2.1 Weaknesses of Yangtze River Delta

With the rapid industrialization, large cropland have been destroyed and been used for construction. Contradiction between the limited land resources and coordinated growth of towns and cities impair the further development. Furthermore, Major products depend on cheap labour and favourable policies due to unsound creation mechanism.

3.2.2 Weaknesses of Pearl River Delta

Excessive dependance on foreign investment vulnerable to sudden risks also make economy easily influenced by international economy changes. Enterprises which mainly use foreign investment aims to pursuit low cost and high profit, not to conduct industrial construction reajustment and achieve industrialization.

3.2.3 Weaknesses of Beijing-Tianjin-Tangshan Area

Imbalance between oversize cities and backward rural areas is obvious. Although there are many large cities such as Beijing, Tianjin, Dalian and Qingdao, it is short of cities of middle size. Moreover, State-owned economy develop so quickly with private sectors falling behind. Government's too much interference in resources and cooperations slow down the speed of progress of private sectors, and make it difficult to promote economic construction.

4. Resolution of weaknesses of three major major urban agglomerations

In order to eliminate the weaknesses and improve sound growth of urban agglomerations, China should establish a set of mechanism including the following points: (1)Government should identify the general target and objectives at different stages to assist all cities to exert their comparative strengths and to regulate activities of local and central government. (2) It is of importance to set up unified, transparent,opened,and regulated market.Government must make great efforts to promote market system at all levels,guarantee the fundamental function of market mechanism.(3)Unified laws and regulations have to be formulated to restrict behaviors caused by protecting its own interests which produce unfavorable influence to others.(4) An arbitration committee,organized by governemt and private sectors together ,should be built to deal with economic problems ,and research and set up the development plans.

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Research on the Stiff Function of Network Media Taking Network Media Reports on Male Teachers as Examples

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Abstract

In order to research on the stiff function of network media, this paper selects a special group-male teachers as research objects, analyzes comprehensively from the perspective of communication science, summarizes how the image of this group is set up in network media and what kind of communication effect is generated, and makes suggestions, which are expected to be beneficial for network media to exert effective function in public opinion supervision.

Keywords: Male teachers, Stiff impression, Network media, Traditional media

Lippmann, American politician and journalist, pointed out in *Public Opinion* that media has a special function. It adopts a fixed mode in reporting certain group or event chronically. Therefore, “stiff impression” on this group or event, that is, a kind of simple and stiffened opinion, will be generated among the message receivers (the public). Although the media has realized this defect in their reports, they could not avoid it in their practices. After all, to attract the public’s attention is the basic rule for media’s survival. The public is also aware of such defect. However, they become accustomed to the media’s “hypnosis”. Therefore, this function of media becomes an important way to teach the public.

Such phenomenon also appears in traditional media whilst it is more obvious in network media. In network communication, because the supervision power is not so good as that in traditional medias, plus the weakness of occupation morality in workers of net websites, the communication of network tends to cater for the public’s interest, resulting that the hit rates of news on violence, eroticism and quaintness are very high whilst no one cares about news on heroic and righteous events. What is important is that in media tools that could teach the public, the influence of network media is becoming more and more significant. In Netizens, the number of teenagers is growing. The capacity of teenagers to distinguish right from wrong is quite weak, therefore, they will be easily influenced by medias. As a worker in education, the author opines that it is of significant meanings to pay attention to the education function of network media. Therefore, the network media becomes the research object of the author.

In order to explore how strong the stiff function of network media is, the author made statistics on the reports on male teachers made by network media. The reason to choose this group is as follows: in recent years, most of the reports on male teachers made by networks are negative reports. In those reports, the male teachers are either the animals who rape the young girls or a whited sepulchers under despise, whose behaviors bring about very bad social influence. As the engineers of human beings souls, the negative images of teachers will generate certain influence on the psychology of teenagers. Therefore, the author believes that male teachers could represent certain things.

The statistics method of this paper is: after insert “male teachers” into Google, 125 messages are available (the overlapped news are not counted in). The author analyzed the contents of the news, divided the news according to their styles, and analyzed the nature of the report according to the contents, that is, what the image of the male teacher is, positive, negative or neutral. And then, the author figured out the sources of the reports, from transitional media or network media, so as to analyze the difference and similarity of the stiff function of traditional media and network media. At last, the author made statistics on relevant comments on those reports to analyze the communication effect of those reports.

The time the statistics was made is from 25 to 28 April 2008. The statistics objects are news reports on male teachers from 2001 to 2008. The research methodology is content analysis.

The statistical analysis result is that in the 125 news report, the images of male teachers are divided into 9 types.

The amount of reports on male teachers in network media which sets up neural images is the biggest. Negative image ranks the second and positive image the least. Let us leave alone the neural reports (the netizens may not pay attention to this type of reports) and compare the positive reports with negative reports. The negative report is 3 times that of

positive reports. The netizens are easily attracted to negative reports. Therefore, the images of male teachers set up by network media make citizens tend to generate stiff impression that male teachers are animals, abnormal persons and demons.

Table 1. Analysis of the male teacher image in network reports

Image	Report amount/percentage	Nature
Animal type	20/16%	Negative (50/40%)
Abnormality type	19/15%	
Demon type	11/9%	
Romantic type	8/6%	Neutral (48%)
Weak type	23/19%	
Sunny type	5/4%	
Blurry type	23/19%	
Hero type	4/3%	Positive (16/12%)
Ideal type	12/9%	

1. Analysis on the image nature of male teachers

1.1 Positive images

Reports of this nature include two images: hero type and ideal type. In reports of hero type, male teachers rescue others and have selfless images. In reports of ideal reports, male teachers are morality models who have good teaching style and morality (please refer to table 2). The theme of such reports is to resound through the good characteristics of male teachers and to establish “hero” and “model” images for male teachers, who set good examples for the public. However, because the description of the characters in the reports is not clear enough, the character image is quite weak and has no strong influence effect, which will not leave deep impression on readers (please refer to table 2).

Table 2. Positive reports on male teachers

Type	Headline
Hero type	1. Elementary school male teacher saves child dropped into water
	2. The influence of “male teachers” on the non-intelligence element development of children-explore community education
	3. A male teacher in the countryside of Zhaoqing is to become the first person in Guangdong province who donates kidney to non-family members
	4. A male teacher saves 32 students in the flood but lost 7 family members
Ideal type	1. A male teacher, unwilling to be common
	2. Celebrating Women’s Day, male teachers hold love umbrella for female teachers
	3. A male teacher has been staying in countryside elementary schools from 24 years, only 13 students in the entire school
	4. Xiangtan University Event: bold and unconstrained male teachers and graceful and restrained female professor
	5. Zang Jinlong, a male teacher in a kindergarten
	6. Ren Yuanhui, a teacher in No.66 middle high school wins “the most charming male teacher prize”
	7. Countryside male teacher (essay)
	8. 7 reasons for marrying elementary school male teachers
	9. Male teacher shall become the big trees and female teachers mothers
	10. Countryside male teacher (poem)
	11. 18 male teachers take initiative to shoulder the work of 100 female teachers
	12. A male teacher, who have been teaching for 38 years, still cares about his student when he is terribly ill

1.2 Negative images

Reports of this nature include three images: animal type, abnormality type and local tyrant type. Firstly, in animal type reports, male teachers are all animals-like who rape young girls (female students). In the reports, male teachers are licentious, without morality and sense of honor, heartless and punished by laws. Secondly, in abnormality type reports, male teachers have exhibitionism, addiction to wired clothes, and addiction to peeping, homoerotism and are transgender persons. They have strange personality or dress up weirdly. Even if the words are not so attractive, the novel contents could attract people's attention. In local tyrant type reports, male teachers are either killers of sadism. Because many are criminal cases and there pictures too, such reports really attract people's mind (please refer to table 3).

Table 3. Negative reports on male teachers

Type	Headline
Animal type	1. Male teacher lured 14-year-old girl to cohabit in the name of "makeup missed lessons"
	2. Volunteer male teacher discloses unethical love with high-school-freshmen girl online
	3. Beijing male teacher fondled the breasts of more than 10 girls in public during teaching
	4. Changchun groping male teacher has molested pupils for more than two years
	5. Strange teacher and student – the love and resentment between prostitute girl and her former male teacher
	6. Lonely holiday of male teacher and girl student
	7. 57-year-old male teacher rape-and-killed girl student and discard the body in wilderness six months ago
	8. 20-year-old school beauty cohabited with married male teacher and suffered repeated abortions
	9. Do all male teachers have "Erotomania Gene"?
	10. Unmoral fortyish male teacher molested several girl pupils
	11. For molesting and raping 11 young girls, a Sichuan "groping" male teacher gets suspended death penalty
	12. Male teacher's impulsive passion deviant gets costly pay
	13. Hong Kong 52-year-old male teacher had sex with 11-year-old girl student
	14. 14-year-old girl shows up after "missing " with a male teacher, pregnant with his child
	15. Male teacher molested 4-year-old girl, angry parents called police
	16. Male teachers are banned to teach girl students in New Delhi primary schools for too many sexual harassment cases
	17. Gansu high school male teacher got death penalty for raping 18 girl students
	18. Emasculation surgical for all the male teachers
	19. Primary school male teacher molested 4 girl students in name of learning the human body
	20. Dr. male teacher beats girlfriend and claims that the relationship is for sympathy
	1. college male teacher shows his half-naked photos online
	2. Help! Male gym teacher asked me to take off jacket and do 50 push-ups under his dirty look
	3. Aspects of oversea education: Why there are few male teachers in American schools
	4. Overseas returnee college male teacher was detained because of naked chat

Abnormality type	on internet	
	5. Like: chapter 25 of the absurd autobiography of teacher – male teacher becomes a female teacher and female teacher becomes abnormal teacher	
	6. Male teacher punishes girl student to drink wine and one girl student went alcoholism and wash her stomach	
	7. College female teacher screams in the morning because of other's peeping and she doubts that it may be done by a male teacher	
	8. Dressed un in female dress and with condom on the bed, a mid-aged male teacher died weirdly	
	9. College male teacher sends message to ply with college girl students	
	10. College male teachers chat nakedly and mid-aged white collar become the main group in naked chat	
	11. A girl student said that she was sexual harassed by a male teacher and publisher the teacher's phone number on the internet	
	12. A Japanese male teacher was accused of harassing girl students	
	13. In order to take part in "super girl contest", a male teacher decides to change his gender	
	14. A Taiwan male teacher finds a female police as his girlfriend through internet chat	
	15. A Norway male teacher went through denaturalization operation in Christmas and will go back to teacher in his original school	
	16. A young male teacher is addicted to hair and the doctor said that his psychology is normal	
	17. Singapore: Lifish School male teacher announces his gay identity in his blog	
	18. A Japanese elementary male teacher took 600 filthy photos of young females	
	19. A 71 year old American male teacher changes his gender and the parents worry that their children will be confused in gender	
	Criminal Type	1. News! Male teacher beats female teacher
		2. The abnormal love between a male teacher and his 12 years old student
		3. A male teacher hurt 3 teachers with knife and then committed suicide
4. A male teacher hurt 3 teachers with knife		
5. A male teacher took his internet lover by throat and was sentenced to stay of execution		
6. Because of the inappropriate education methods of kindergarten male teachers, the child was very scared and twitching		
7. Before black out, a drunk male teacher rushed into girl students' dorm		
8. Female teacher resigned because of sexual harassment by male teachers		
9. Female student murdered by male teacher in class		
10. A male teacher moved into girl students' apartment and caused many troubles		
11. A male teacher chops at his father at night and chopped off his father's head and burnt		

1.3 Neutral images

Reports of this nature account for a large portion in statistical data. However, because the character images in these reports do not have any emotional features, they do not attract netizens' mind although they are large in number (almost without any comment). Reports of this type include four images: romantic type, sunny type, weak type and blurry type. Romantic type mainly describes love affairs between teachers and students and does not comment on the male teachers. Sunny type reports the demand of kindergarten on young male teachers. Weak type reports are mainly about the poor

male teachers who are weak in economic and social status and could not find wives, or about teachers who are mocked and made games of by students, or have sexual function obstacles, or are gays who are blackmailed. In all, weak type reports create an image of poor teachers. Blurry type is about male teachers who do not show love and hate emotions. Even though in some articles there should be certain encouragement/debasing emotion, because the wrong writing methods of the author, the male teachers' images in the reports are not prominent (please refer to Table 4).

Table 4. Neutral reports on male teachers

Type	Headlines
Romantic type	1. A girl college student died in her teacher of high school, a male teacher
	2. Diction of a male teacher: the love between me and my student in 13 years
	3. A male teacher of Chongqing sent altogether 7000 messages and won his loved
	4. The underground love with a married male college teacher
	5. I successfully turned the most handsome male teacher into my boyfriend
	6. A male teacher, 33 elder than me, expressed his love of me
	7. Fall in love with a male teacher
	8. A senior college student from Chengdu becomes the bride to her male teacher of the college: I am very lucky
Sunny type	1. "oversea returnee" becomes a teacher in kindergarten: young, handsome and versatile
	2. Kindergarten education is in urgent need of manly male teachers
	3. Kindergarten also needs sunny teachers, male postgraduates send their resumes
	4. The amount of male teachers in China's kindergarten is growing
	5. A male teacher joins Nanjing Gulou Kindergarten and he feels good about the job
Weak type	1. Women should not marry male teachers
	2. It is difficult for elementary school male teachers to marry; they compete in housework contest where they handle diapers and prick for girls
	3. The troubles of male teachers
	4. A male teacher, born to be asexual, wants a wife of love but without sex
	5. Elementary school male teachers are also weak group
	6. Hong Kong: a teenager nicknamed "duckbill" was convicted of great crime because of blackmailing a gay male teacher
	7. Finding wives – the pains of countryside elementary and junior high school male teachers
	8. The male teacher is asexual and his wife could not bear the loneliness and find others
	9. Naughty girl student molests her male teacher
	10. On Teachers' Day, to resolve the problems of male teachers
	11. Male teachers in kindergarten
	12. Shenyang: a junior high school male teacher was beaten by his student
	13. The love of male teachers: love does not fall without a house
	14. Female teachers in kindergarten account for 99.5% and it is hard to find male aunts
	15. Elementary schools are looking forward to the joining of male teachers
	16. Male teacher: actually, I am not tired at all
	17. The most beautiful countryside female teacher and the ugliest countryside male teacher

	18. Occupation warning: male teacher was convicted one year sentence because of supplying adult novels
	19. Monthly salary being RMB700, why could not kindergartens keep their male teachers?
	20. Male teachers in the eyes of female teachers
	21. Aiping Chen: strategy for creating cultural survival environment for kindergarten male teachers
	22. The complaint of a male teacher in Shenzhen
	23. A quarrel and abuse between a girl college student and her male teacher
Blurry type	1. Jiading District: male teacher club
	2. The unique card of male teachers
	3. The pictures of the youngest male teacher in HangZhou countryside are published
	4. A 66 year old male teacher died naked with his girl student
	5. The bosom of a male teacher is as bosomy as adult female's
	6. All male teachers of Handan elementary school "peel" the winter cloth of tress
	7. The percentage of male teachers in Shanghai elementary schools keeps decreasing, "female country" is keen for male teachers
	8. The trouble of college male teachers: too many girl students send messages to me
	9. Because there are only a few male teachers, students go bad
	10. The ratio of male and female teachers is unbalanced, could male teachers teach boy students to be manly?
	11. Girl students are dissatisfied with the male teachers' checking of their dorms at night, the school consider this the normal work
	12. Huang Jianxiang turns into countryside PE male teacher and teaches children to play football by talking
	13. Dispute arising out of stopping study and fee re-imburement; male teacher beats a female parent
	14. Faked works of stream of consciousness(Eight) the zippers of male teachers are the same as those of others
	15. The employment condition of elementary school male teachers and male nurse is good, boys should not have prejudice when choosing specialties
	16. The sub-health tends to appear in younger male teachers
	17. Foshan: elementary school male teachers become "hot"
	18. How to cultivate male teachers for kindergarten
	19. The data of Qingdao indicate: in elementary school teachers, male teachers only account for one percent
	20. The hair style of a male teacher influences his teaching quality, the male teacher therefore cut his hair so as to change his image
	21. The death of a 36 year old male teacher in Dongyang sounds the alarm, when you heart feels abnormal, please remember to go to hospital soonest
	22. The excellent capacity of a male teacher on drawing rounds
	23. Girl student nailed male teachers

2. Analysis on report style

As is well known, correspondence and comment are long, suitable for description of details and expressing feelings. Therefore, in reports on positive characters, hero and models, such styles are adopted so as to achieve a better public

opinion propaganda effect. However, the data collected in this analysis show the weakness of network media in public opinion supervision. In styles of positive reports, correspondence accounts for 25% and comment only accounts for 6% and there are altogether 5 long articles. However, in styles of negative reports, correspondence accounts for 30% and comment accounts for 8% and there are 19 long articles, almost 4 times of that of positive reports. It could be seen that the positive reports of small amount, which is hero and model male teachers, could not leave deep impression in the mind of netizens. Negative reports of a large number, which is animal, abnormality and local tyrant male teachers, could leave deep impression in the mind of netizens. The inappropriate adoption of styles deepens the negative stiff impression on male teachers (please refer to table 5).

Table 5. Comparison of report styles

Style Image	Journalese			Non- Journalese					
	Correspondence	Message	Comment	Essay	Poem	Log	Papers	Note	Video
Positive images	4/25%	4/25%	1/6%	1/6%	1/6%	2/13%	1/6%	1/6%	1/6%
Negative images	15/30%	22/44%	4/8%			2/4%		5/10%	2/4%
Neutral images	12/20%	16/27%	6/10%	5/9%		5/9%	3/5%	10/17%	2/3%

3. Analysis on the sources of the reports

The sources of the reports include communication media and traditional media. The credibility of newspapers, magazines and broadcasting TV is pretty high. Their authority is rather great and their recognition degree is high. In creating the images of male teachers, the function of traditional media is the same as network media. It is not that, as we assumed, the public opinion direction power of traditional media is stronger. On the contrary, traditional media also have stiff impression in the reports on male teachers. Seeing from the statistical data, 48% of the negative reports from network media is re-reported in traditional medias. Because the credibility of transitional media is high, the negative reports are more easily to be recognized by netizens and the stiff impression of male teachers is deeper (please refer to table 6)

Table 6. Comparison of the sources of the reports

Sources Images	Web sites	Traditional media (newspaper, magazines, broadcasting TV) Re-reported from web sites
Positive images	8/50%	8/50%
Negative images	26/52%	24/48%
Neutral image	35/59%	24/41%

4. Analysis on relevant comments

Table 7. Comparison of relevant comments

Images	Comments
Positive images	104/2%
Negative images	2803/66%
Neutral images	1348/32%

The reason that we concern the reports of network media on male teachers is that we want to understand how the images of this group are set up by network media and what kind of communication effect is generated by such images. The most direct method to measure the communication effect of those reports is to make statistics on relevant comments on those reports. The data indicated that 4255 people had commented on the 125 messages. The concern rate of netizens on negative reports is the highest, reaching 66%, whilst the concern rate on positive reports is the lowest, only about 2%. 2701 are extremely interested in “male college teacher shows his half-naked picture on internet” (abnormality type) and commented a lot. While few care about “elementary male teacher saves child dropping into the water” and “male teacher saves 32 students from the flood but lost 7 family members” (hero type) and no comment was left. The two extreme attitudes show that netizens are zeal about negative news, which encourages the reports on

negative news. (please refer to table 7).

5. Summary and suggestion

It could be seen from the above statistical data that in reports made by network media on male teachers, the amount of negative reports are far more than that of positive reports. The communication effect already generated could prove the mightiness of the stiff function of network media. It must be pointed out that firstly network media shall have be under the direction of right public opinion supervision and shall follow certain rules in deciding the amount of positive and negative reports. Secondly, the character images in positive reports shall be described as lively and vividly as possible, where communication and comments style shall be adopted. In negative reports, the character images shall not be too clear and the details of their crimes should not be described in too clear ways, where short message style shall be used. Such suggestion is also suitable for traditional media. At last, it could be concluded from relevant comments of the reports that the netizens have strong mood to seek novelty and quaintness. The net websites could set up limit for the comments on negative reports. For example, the column of comments will automatically close when the comments reach 100 pieces.

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The Knowledge of “Self” from the Bhagavad-Gita and Its Significance for Human Capital Development

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Abstract

This paper explores the perspective of self knowledge from the Bhagavad-Gita and its significance to human capital development. A review of literature in this field shows that several studies have been done in the area of human capital development from various perspectives; however very few have been done to integrate the Bhagavad-Gita and self knowledge. As a result, this paper not only fills the gap in the literature of human capital development, but also provides some significance and insights on human capital development from the ancient Indian philosophical perspective. Chinmayananda asserted that from time to time an ancient philosophy like the Bhagavad-Gita needs intelligent re-interpretation to apply effectively in the context of modern times. This paper is based on literature review and hermeneutics, a qualitative research methodology which involves study, understanding and interpretation of ancient or classical text. The Bhagavad-Gita is more than 5,000 years old and is written in Sanskrit language. In a nutshell, the Bhagavad-Gita provides an inside-out approach to human capital development unlike the outside-in western perspective.

Keywords: Self knowledge, Human capital development, Indian philosophy, The Bhagavad-Gita

Introduction

Today, organizations are witnessing an unsurpassed change in an increasingly global, dynamic and competitive marketplace. Their aim is similar to one another that are achieving sustainable competitive advantage and long-term success over competitors. But the road to reach out there is severe and more than easy to say. In order to be competitive in this dynamic business environment, organizations have to be agile, embrace creativity and innovative. These latter two, creativity and innovation, are the "motto" for every business enterprise today. These are the new management mantras that, as Peter Drucker indicated are critical to growth in a competitive environment without which companies stall and die. This is the reality of today's relentless business environment.

And this reality leads us to most elusive asset of any company, namely the Human Capital. It is just simply because an organization's creativity and innovation level totally depend on the potential of their people. This brings an implication for HR professionals to set their agenda and to design systems for attracting, developing, retaining talent and engaging them towards getting the most of their human capital potential. It seems that the only way is to nurture organizational learning, teamwork and collective intelligence by stimulating free-flow of ideas along with a disciplined and methodical approach to continuous improvement.

1. Literature Review

The literature on the subject defines human capital as the know-how, education, work-related competencies and psychometric assessments of employees (Namasivayam, 2006). Other academics define it as the sum of all individual competencies in organizations (Teece, 2000) or a combination of genetic inheritance, education, experience and attitudes about life and business (Bontis, 1998). Whichever definition is used, the bottom line is that human capital represents the

capability of the organization and is resident in the minds of the employees. It incorporates the capacity to act, both individually and collectively, in a wide range of situations to achieve organizational results.

In the profit driven private sector, it is widely believed that people are the last weapon of competitive advantage in the knowledge economy (Knowledge Infusion, 2006). Products can be easily duplicated and services cheaply emulated but innovation, execution and knowledge cannot be. Removing the profit motive and examining the approach for the public sector does not dilute the value of a strategic approach to human capital management and development. The nature of the service provided by the public sector means that the capabilities of the employees, i.e. the human capital are fundamental to the effective functioning of the service organizations. Therefore there is a continuing shift in focus towards maximizing the competitive difference housed in an organization's employees.

Organizations the world over stand up and proudly proclaim that their employees are their greatest asset and indeed, the nature of the intangible economy supports the notion. However, if this truly is the case, then it needs to be mentioned that the organization's greatest asset has its own mind, makes its own decisions and walks out the door every evening. Therefore, focusing exclusively on the individual human capital development without understanding the nature of knowledge exposes to the risk of losing valuable knowledge when the people leave the organizations.

1.1 Structural / Organizational Capital

Structural capital is the mechanisms and structures of the organization that help support employees in their quest for optimum performance and therefore overall business performance (Levinson, 2006). Structural capacity represents the ability of an organization to learn and remember lessons learnt.

Knowledge and experience are tacit when they are housed in the minds of the employees. Once the knowledge is written down in some form it is explicit. Structural capital is the ability to convert tacit knowledge into explicit knowledge so that the organization is able to retain knowledge. In other words it is what is left after the employees have gone home.

1.2 Stakeholder Capital

It is not difficult to imagine that there is valuable knowledge regarding the running of an organization and the delivery on its mandate in stores external to the organization and its employees. This information can be housed in the organization's customers, suppliers as well as partners in the service delivery chain. The value of this stakeholder capital is dependent on the organization's ability to access, capture and store and analyze the knowledge that is embedded in these stakeholders. The ease with which this is done varies from stakeholder to stakeholder.

1.3 Relationship between Human, Structural and Stakeholder Capital

The sum of Human, Structural and Stakeholder Capital is widely considered to make up an overarching concept called Intellectual Capital (IC). Intellectual capital can be defined as the total stock of capital or knowledge based equity that a company or organization possesses (Dzinkowski, 2000). In other words, the skills, competencies and knowledge that are housed within an organization's employees, processes, databases and stakeholders that provides the organization with the ability to fulfill its mandate whether that be maximizing profits for shareholders or optimizing service delivery.

The effectiveness of an individual employee (human capital) is enhanced by efficient processes to maximize the use of the knowledge (structural capital) and the usefulness of databases (structural capital) is dependent on the skills of the employees (human capital) in administering the process. Another concept which can be added into the mix at this stage is social capital. Again, there is much discrepancy in the literature regarding exactly what constitutes social capital but for the purposes of this assessment it will be defined as the connections in the human networks (Cunningham, 2002). In other words human capital is knowledge that resides in people and social capital is the knowledge that resides in their relationships and interactions in the workplace towards the achievement of organizational goals. Structural capital can be developed by means of sharing information (social capital) or by capturing lessons learnt in some explicit form.

2. Knowledge and Talent Management

Two concepts that go hand in hand with this discussion on Human Capital Development are those of knowledge management and talent management.

2.1 Knowledge Management

Unfortunately, there is no universal definition of knowledge management (KM), just as there's no agreement as to what constitutes knowledge in the first place. For this reason, it is best to think of KM in the broadest context. Succinctly put, KM is the process through which organizations generate value from their intellectual and knowledge-based assets.

2.2 Talent Management

A similar concept is that of talent management. Whilst KM deals with maximizing the available collective knowledge in an organization, TM relates to ensuring that the relevant levels of talent exist in the organization. Thus the focus is on acquiring talent, not in quantity but rather the correct quality of talent. This is achieved by means of attracting and selecting candidates wisely, retaining and developing leaders as well as placing employees in the positions of greatest

impact given their capabilities (Knowledge Infusion, 2006). Talent management is a continuous, integrated process that helps employers to:

- Effectively plan talent needs
- Attract the very best talent
- Speed time to productivity
- Motivate the right behavior
- Develop targeted capabilities and knowledge
- Retain the highest performers
- Enable talent mobility across the organization

Furthermore, the needs of the employees are taken into account and thus the employees are not merely exploited for the needs of the organization. This symbiotic approach fosters trust and the ability for the organization to gain a competitive advantage.

Unlike storing physical inventory in traditional manufacturing organization, stocks of skills and knowledge that reside in human capital become obsolete over time. This is not necessarily due to the knowledge becoming outdated but rather that human beings become unmotivated when they feel that they are not being utilized or challenged (Deventer, 2002). This is confirmed by a study that found that 90% of University of London graduates expected their employer to aid them in their development (Pricket, 1998) and one third of a sample of high flyers said that they would leave their organization if they could not broaden their skills (Holbeche, 1998).

The link between training and organizational performance has long been acknowledged. However, current thinking in the field of Human Capital Development (HCD) is moving away from traditional classroom teaching techniques in favor of more interactive and dynamic methods of learning within organizations. In his book, *Accelerating Performance*, Sunny Rostron reported that people remember:

- 20% of what they read
- 30% of what they hear
- 40% of what they see
- 60% of what they say
- 90% of what they see hear and do (Rostron, 2002).

By using more interactive, practical techniques learners are able to not only retain more information but also assimilate that information into their own work context. Human Capital resides in the mind of the people. This mind if properly treated than this capital grows and if not used for a longer period than it will stall and decay. The bottom line for Human Capital Development is that the companies must provide opportunities to their employees to develop their mind. This is done when the employees become self-realized. Employees operate in the Maslow's Self-Actualization need level when they become self-realized for this they must know themselves first.

3. Know Thy Self

The potential of the human mind is subject to, and limited only by, our individual beliefs or un-belief as to whether we can accomplish a thing or not. The power of the human mind is unlimited in its potential to create the results desired, whatever they might be, whether on the mental (spiritual) or physical plain. By coming to a basic understanding of this power, coupled with the established and unwavering Universal Laws and Spiritual Principles that support its ability to do so, effortlessly one can create the life of Happiness or *Ananda* that one has eluded for. It is possible to achieve a life of purpose and fulfillment without much struggle and sacrifice if the human perceptions can discover the ultimate truth.

By learning and implementing some simple principles, and following proven, time tested strategies to enhance mind function and development, one finds that one can literally "attract" and "allow" success to flow in. Through the years, there have been many scientific studies done, and experiments performed, on the subject of human mind power. In the spiritual community it is witnessed regularly, the ability of mind power to reverse and heal illness and disease that the medical community had previously considered and labeled as irreversible. Many attribute such occurrences to something outside of themselves and have come to believe that these things happen only to specific and "Lucky" individuals.

First of all it is important to understand that the human brain and the mind are not the same things. Both the mind and mind power are purely a non physical consciousness (spiritual) that is only capable of thought, while the brain is the physical tool that the mind uses to carry out a portion of its intended purpose. It has been found that the average person utilizes only about 10% of their brains capability. What about the other 90%? Would our Creator have provided us with mind power that he had no intention for us to use? That is a valid question.

The attempt to find the answer to that question is the first step towards self-realization. This will assist one in developing a heightened awareness of how the brain operates as well as explain how one can utilize one's mind power to dramatically increase its limitless capabilities, as well as specific steps that one can follow to effectively utilize this increased capability to bring into one's life, unrealized dreams, desires and circumstances.

By developing an awareness of the functions of the human mind, and establishing a belief to do so, it is possible to consciously and purposefully utilize human mind power to dramatically enhance any area of human life.

The only thing that limits anyone from accomplishing anything that they can conceive is a missing ingredient from the following equation.

Awareness + Desire + Belief + Action = Unlimited Capability

It is a simple formula like any other extremely simple things that our Creator has provided us with. Man has made this extremely simple concept appear to be extremely complex because their beliefs are covered with Maya, and so these simple things have become out of reach of the average person, there are proven and simple means of developing the human mind to consciously and consistently achieve by following the simple rules that our creator has told us to do. The lessons given by Lord Krishna in the Bhagavad-Gita are the way to achieve self realization and to realize the ultimate truth. These are very basic Universal principles (Spiritual Laws) that support and have proven that the average human does have the ability to create unlimited mind power. Becoming aware of, and developing the understanding of, exactly how these basic principles operate, are the first steps toward realizing our own true potential to do so. This deeper understanding and awareness will allow us to create for ourselves, the circumstances that allow us to prosper, (in both the mental and physical realms) and begin to experience the *Ananda* i.e the joy, fulfillment, inner peace, abundance, and happiness. Let us now explore some of the self knowledge lessons which the Bhagavad-Gita can provide to human capital development.

4. The Bhagavad-Gita

Before we look at the self knowledge and human capital development from the Bhagavad-Gita, we will introduce this ancient Indian philosophical text. The Bhagavad-Gita is a sermon given by Sri Krishna to Arjuna regarding the correct technique of life (Dharmaratnam, 1987). Over the centuries many renowned scholars and philosophers from all over the world have commented on the Bhagavad Gita and elucidated its teaching in many publications and lectures. It is universal and non-sectarian and its teachings are applicable not only to Indians but to everybody. The message of the Bhagavad Gita is not only limited to spiritual development but also in other aspects of human capital development and also to facilitate the development of transformational leaders. The original version of the Bhagavad Gita is in Sanskrit language, which is one of the oldest languages in the world. Charles Wilkins translated the first English language version of the Bhagavad Gita in 1785 (Muniapan, 2005). At present there are more than 1000 English language versions and commentaries of the Bhagavad Gita written by many scholars in India and around the world. The Bhagavad Gita has also been translated into more than 500 world languages other than English. The Bhagavad-Gita has exercised an enormous influence, which extended in early times to China and Japan and lately to the western countries. The two chief scriptural works of Mahayana Buddhism – Mahayana Sraddhotpatti and Saddharma Pundarika – are deeply indebted to the teachings of the Bhagavad-Gita. Mahatma Gandhi who preached the Bhagavad-Gita philosophy, said: "I find a verse here and a verse there and I immediately begin to smile in the midst of overwhelming external tragedies – and if they have left no visible, no indelible scar on me, I owe it all to the teachings of the Bhagavad-Gita." (Mahadevan, 2001).

The background for the Bhagavad-Gita is the epic Mahabharata, extolled as the 5th Veda. Mahabharata is an encyclopedia of life and its central theme is dharma meaning occupational duty, righteousness and virtues. It deals not only with dharma but also artha, which is the acquisition of wealth, kama which is the enjoyment of pleasures and moksha which is the liberation. The Mahabharata was composed by Sri Vyasa Muni (son of Parasara Muni) and was written by Sri Ganesa more than 5000 years ago and it has 110,000 verses (Rosen, 2002). The Bhagavad-Gita appears in 700 verses (of which 575 are uttered by Sri Krishna) in Bhishma Parva of the Mahabharata and consists of 18 chapters.

The Mahabharata narrates the war between two cousins; the 5 Pandavas and 100 Kauravas to claim the kingdom of Hastinapura. Sri Krishna, the champion of dharma offered to go on a peace-making mission on behalf of the Pandavas (This is a lesson to the world that peace is preferred at all costs). However the Kauravas refused to make peace and hence war became a certainty. Sri Krishna humbled himself into becoming the charioteer of Arjuna, the Pandava prince. In fact, Arjuna could choose unarmed Sri Krishna who would not engage in battle or Sri Krishna's army consisting of great warriors. Arjuna (Pandava) decided to choose Sri Krishna unarmed, while Duryodhana (Kaurava) was happy to get the large army from Sri Krishna. He (Duryodhana) felt that, without the army, and without weapons, Sri Krishna not could be of much help to the Pandavas (Subramaniam, 2001).

The entire armies (7 Pandava divisions and 11 Kaurava divisions) of both sides were assembled at the battlefield of Kurukshetra. Thus the stage was set for the Bhagavad-Gita. The sermon was given on the battlefield before the commencement of the war. The battlefield also represent our body where an unending battle is raging between the forces of good and evil – the evil always outnumbering the good (5 Pandavas against the 100 Kauravas; or 7 Pandava divisions

of soldiers against 11 Kaurava divisions). On a spiritual level, the focus is on the battle between the higher self and the lower self, the war between man's spiritual calling and the dictates of the body, mind and senses for material pleasures.

5. The Broad Purpose of This Paper

Research works in the analysis ancient Indian literature such as the Bhagavad-Gita in the context of modern human capital development are indeed limited. Indian leadership in particular, are still focusing in applying western models of human capital practices due to the wealth of western leadership and management literature and concepts available. Besides, many of the new generation of Indian leaders have received their education in leadership from western countries (especially in the UK and USA) (Muniapan, 2006).

According to Arindam Chaudhuri, one of the proponents of Theory "I" Management or Indian management (also includes leadership), while India may claim to have some of the best management and leadership schools in the world, most Indian organizations have not been able to do well internationally. Among the reasons cited is the failure of Indian management to develop the indigenous management style, which revolves around Indian cultural roots and upbringing. He (Arindam Chaudhuri) further asserted that an Indian grows up in a social system, where family loyalty and sense of belongingness is paramount and with this type of background, he or she may not be able to adjust or fit into the job environment practicing American philosophies of individualistic, direct, low power distance and contractual style of management (Chaudhuri, 2003).

Goldman Sachs (one of the world's most prestigious investment banks) in a report recently indicated that Brazil, Russia, India and China can become a much larger force in the world economy over the next 50 years. The report said India could emerge the world's third largest economy as it had the potential for achieving the fastest growth over the next 30 to 50 years (The Star, Monday September 11, 2006). As a result, it is imperative that India should focus its effort on human capital development, from its own cultural perspective.

6. Methodology

This paper is a qualitative paper which involves a review and analysis of literature on human capital development and also the interpretation of selected verses of the Bhagavad-Gita in the context of self knowledge. The methodology used for the interpretation is hermeneutics. Hermeneutics is related to the name of the Greek god Hermes in his role as the interpreter of the messages of the gods. In the current context, hermeneutics can be described as the interpretation and understanding of ancient literatures. Hermeneutics is widely applied in many field of social science such as philosophy, religion and theology, law, sociology and also international relations.

7. Knowledge of the Self: Lessons from the Bhagavad-Gita

The Bhagavad-Gita enlightens us with several lessons on the knowledge of the self and the world. Our understanding of the world is generally dependent upon our ability to correlate, interpret, and assimilate information gained through observation and experience through our senses. Man's understanding of the world around him is proportional to the understanding of the self. There exists a correlation between the self-knowledge and the outer world. The golden key to understand the universe is held within the man for those who would know themselves truthfully. Self-knowledge begins with self-observation, self-examination, and self-evaluation and there by developing certain qualities that are called Divine Qualities, enlisted by Lord Sri Krishna in the Bhagavad-Gita chapter 16 verses 1, 2 and 3.

abhayam sattva-samsuddhir, jnana-yoga-vyavasthitih; danam damas ca yajnas ca, svadhyayas tapa arjavam

ahimsa satyam akrodhas: tyagah santir apaisunam, daya bhutesv aloluptvam; mardavam hrir acapalam, tejah ksama dhrtih saucam; adroho nati-manita, bhavanti sampadam daivim, abhijatasya bharaata (16.01-03)

Fearlessness, purity of heart, perseverance in the yoga of knowledge, charity, sense restraint, sacrifice, study of the scriptures, austerity, honesty; (16.01)

Nonviolence, truthfulness, absence of anger, renunciation, equanimity, abstaining from malicious talk, compassion for all creatures, freedom from greed, gentleness, modesty, absence of fickleness; (16.02)

Splendor, forgiveness, fortitude, cleanliness, absence of malice, and absence of pride; these are the qualities of those endowed with divine virtues, O Arjuna. (16.03)

The seeker of self-knowledge must remain open to the truth about himself, and must remain unbiased. The exercise of retrospection is a part of this process, and it should be complemented with spiritual practices and the calming of the entire personality and one's inert nature. Sri Krishna in the Bhagavad-Gita has given a clear description of how to develop spiritually. In chapter 17, Sri Krishna has advised to practice austerity of body, mind and speech to unfold the layers of self-glamour and illusion so that the truth is revealed for what they are, and the deeper knowledge about the self and its relationship to every other life are uncovered.

deva-dvija-guru-prajnapujanam, saucam arjavam; brahmacaryam ahimsa ca, sariram tapa ucyate: anudvega-karam vakyam, satyam priya-hitam ca yat; svadhyayabhyasanam caiva, van-mayam tapa:

ucyatemanah-prasadah saumyatvam, maunam atma-vinigraha; bhava-samsuddhir ity etat, tapo manasam ucyate: sraddhaya paraya taptam, tapas tat tri-vidham naraih; aphilakanksibhir yuktaih, sattvikam paricaksate (17.14-17)

The worship of Devas, Braahmana, guru, and the wise; purity, honesty, celibacy, and nonviolence; these are said to be the austerity of body. (17.14)

Speech that is not offensive, truthful, pleasant, beneficial, and is used for the regular reading of scriptures is called the austerity of word. (17.15)

The serenity of mind, gentleness, silence, self-restraint, and the purity of mind are called the austerity of thought and mind. (17.16)

Threefold austerity (of thought, word, and deed) practiced by yogis with supreme faith, without a desire for the fruit, is said to be Saattvika austerity. (17.17)

nadatte kasyacit papam, na caiva sukrtam vibhuh; ajnanenavrtam jnanam, tena muhyanti jantavah (5.15)

The Lord does not take the (responsibility for) good or evil deeds of anybody. The knowledge is covered by (the veil of) ignorance, thereby people are deluded. (5.15)

Therefore each action, activity, feeling, thought, and tendency should be examined carefully. Above all, the motives and intentions should be evaluated, for these are the real keys to understanding any action. Man is influenced by both internal and external forces. Each source of influence should be examined and the response of the personality to each influence should be assessed. Man should honestly accept responsibility for his own behavior and his response to any situation. Self-Knowledge brings in better understanding of the forces that influence man and so he can better condition or qualify his will (intention). Self-knowledge helps in understanding of the reality or purpose that underlies all events and appearance in the manifested universe.

man-mana bhava mad-bhakto, mad-yaji mam namaskuru; mam evaisyasi yuktvaivam, atmanam mat-parayanah (9.34)

mayy eva mana adhatsva, mayi buddhim nivesaya; nivasisyasi mayy eva, ata urdhvam na samsayah(12.8)

Fix your mind on Me, be devoted to Me, worship Me, and bow down to Me. Thus uniting yourself with Me, and setting Me as the supreme goal and sole refuge, you shall certainly realize Me. (9.34)

Therefore, focus your mind on Me alone and let your intellect dwell upon Me through meditation and contemplation. Thereafter you shall always dwell with Me. (12.08)

When one completely focuses his mind in truth he can very well test the significance of the Outer knowledge by comparing it with the Inner knowledge i.e self realization. In accordance with the awareness of the truth about oneself, will be the ability to discern truth from (within) information or knowledge obtained externally. Similarly, knowledge can be obtained internally and tested for significance. The test for apparent significance depends a great deal on the degree and quality of alignment (of soul and personality) and the quality of values which condition the personality. An individual who is personality-centered will normally accept as significant any impressions which reinforce his own (personality-centered) values and interests; this will, of course, reinforce his continued self-glamour. An individual who is reasonably aligned (with the self) and who is honest with himself (and whose values are predominantly spiritual and impersonal) will accept as significant only those impressions which have some basis in truth (reality), rather than appearance. So the Lord has advised to focus the mind in Him so that we are always with Him and the truth is always with us as evident in the verses of the Bhagavad-Gita 9.34 and 12.8.

sraddhaval labhate jnanam, tat-parah samyatendriyah; jnanam labdhva param santim, acirenadhigacchati (4.39)

The Supreme Lord says in verse (4.39) that one who has faith in Lord, and is sincere, and has mastery over the senses, gains the true knowledge. Having gained this, one at once attains the supreme peace. Therefore the Self-knowledge leads to Self-realization i.e the realization of the true self.

ahankaram balam darpam, kamam krodham parigraham; vimucya nirmamah santo, brahma-bhuyaya kalpate: brahma-bhuta prasannatma, na socati na kanksati; samah sarvesu bhutesu, mad-bhaktim labhate param: bhaktya mam abhijanati, yavan yas casmi tattvatah; tato mam tattvato jnatva, visate tad-anantaram:

sarva-karmany api sada, kurvano mad-vyapasrayah; mat-prasadad avapnoti, sasvatam padam avyayam (18.53-56)

Lord Krishna says, "Relinquishing egotism, violence, pride, lust, anger, and desire for possession; free from the notion of "my", and peaceful; one becomes fit for attaining oneness with Brahman. (18.53)

Absorbed in Brahman, the serene one neither grieves nor desires; becoming impartial to all beings, one obtains My supreme devotion. (18.54)

By devotion one truly understands what and who I am in essence. Having known Me in essence, one immediately merges into Me. (18.55)

One attains the eternal imperishable abode by My grace, even while doing all duties, just by taking refuge in Me. (18.56)”

The Bhagavad-Gita illustrates the importance of the control of the mind for gaining the self knowledge. Verses 5&6 in chapter 6 of the Bhagavad-Gita say:

uddhared atmanatmanam, natmanam avasadayet; atmaiva hy atmano bandhur, atmaiva ripur atmanah:

bandhur atmatmanas tasya, yenatmaivatmana jitah; anatmanas tu satrutve, vartetatmaiva satru-vat (6.5-6)

One must elevate, not degrade, oneself by one's own "mind". The mind alone is one's friend as well as one's enemy. (6.05)

The mind is the "friend" of those who have control over it, and the mind acts like an enemy for those who do not control it. (6.06)

So in essence the Lord says that living in humility, with compassion and with honest detachment and through the control of mind, the self-realized man can understand the true self and the world around him. Such a man is continually aware of his actions, reactions, and interactions with the inner and outer worlds. Balanced between the self and the outer world, the self-realized man stands as a responsive and willing servant of the Supreme Lord and the humanity.

Conclusion

We are living in an era where a shift from industrial society to knowledge society has been going on. This transition brings together some important implications to management that the primary source of wealth is human capital. And the challenge for senior management is *how to ensure its human capital to convert data into meaningful information and turn that meaningful information into common business intelligence and ultimately convert that intelligence to WISDOM?*

Innovative organizations whether radically or incrementally, will be one step further than their competitors. For achieving such high levels of innovativeness, Companies must first convert their culture into more participative and more respective one. Thus ascribes a strategic role for all HR professionals as they will be the driver for that change in their Organizations.

The HR have to come up with right solutions, right tools and with right systems in order to utilize the human capital to its best, to its highest use, to show the impact of employee decisions on overall business results by figures and to make this transition to knowledge society real for their organizations.

In this paper some perspectives of self knowledge from the Bhagavad-Gita has been presented in the context of human capital development that would impart moral efficiency to the managers. In the absence of this important personality value, the manager will increasingly tend to lack innovation, and would become egocentric and thus would fail to respond to human situations in a human way. This would subsequently lead to strained interpersonal relationship in the organization and restrict the human capital development. We hope this will provide the basis for more research on the Bhagavad-Gita and its relevance for human capital development in the future.

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A Cross-cultural Study of Daily Communication between Chinese and American -- From the Perspective of High Context and Low Context

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Abstract

In cross-cultural communication, ignorance of contexts usually leads to misunderstanding and conflicts. Based on Edward. T. Hall's notion of high-context and low-context, this paper aims to generalize the basic distinctive characteristics of the two contexts by analyzing the actual cases in daily communication between American and Chinese. This paper also tries to conclude some tips for communication crossing the two contexts in accordance with the case analysis.

Keywords: High-context, Low-context, Communicatio, Culture

1. About Hall's high-context and low-context

Context is important in all communication, but it is relatively more important in some situations than in others. There are also significant differences across cultures in the ways and the extent to which people communicate through context. One of the main distinctions between cultures has been the notion of high and low context cultures, proposed by the American anthropologies Edward. T. Hall in his 1976 classic, *Beyond Culture* (Hall, 2000).

1.1 What is high/low-context?

Edward T. Hall has described cultural differences in the use of language and context in communication. He calls communication that occurs mostly through language **low context** and communication that occurs in ways other than through languages as **high context**.

A high-context (HC) communication or message is one in which most of the information is either in the physical context or internalized in the person, while very little is either in the physical context or internalized in the person, while very little is in the coded, explicit, transmitted part of the message. A low-context (LC) communication is just the opposite; i.e., the mass of information is vested in the explicit code.

Any transaction can be characterized as high, low or middle context. HC transactions feature preprogrammed information that is in the receiver and in the setting, with only minimal information in the transmitted message. LC transactions are the reverse. Most of the information must be in the transmitted message in order to make up for what is missing in the context.

Although no culture exists exclusively at one end of the scale, some are high while others are low. American culture, while not on the bottom, is toward the lower end of the scale. And Chinese culture, while not on the top, is toward the higher start point of the scale.

1.2 Distinctive characteristics between high-context and low context

Hall observed that "meaning and context are inextricably bound up with each other" (Hall, 2000, p. 36), and suggested that to understand communication one should look at meaning and context together with the code (i.e., the words themselves). By context, we refer to the situation, background, or environment connected to an event, a situation, or an individual. When communication is HC, it is not only the non-verbal and para-verbal communication that comes into play. HC communication draws on physical aspects as well as the time and situation in which the communication takes place, not to mention the relationship between the interlocutors. The closer the relationship, the more HC the communication tends to be, drawing on the shared knowledge of the communicating parties.

By using scales meant to conceptualize the difference between High-and Low-Context communications, Gudykunst et al. (1996) identified HC communication to be indirect, ambiguous, maintaining of harmony, reserved and understated. In contrast, LC communication was identified as direct, precise, dramatic, open, and based on feelings or true intentions.

Thus basic distinctive characteristics within the two contexts can be generalized into the way by which people express the meaning and think as well as the media through which people communicate i.e. **directness or indirectness; liner or circular; verbal or nonverbal.**

Detailed analysis about these three distinctive characteristics will be given in the following part, using the actual cases in daily communication between Chinese and America, to illustrate the importance of recognizing the differences of context in cross-cultural communication.

2. Cases analysis based on Hall's views

A. directness vs. indirectness

Hall adds that those who use LC communication style are "expected to communicate in ways that are consistent with their feelings," whereas a person from a HC culture will set the context and the setting and let the message evolve without referring to the problem directly. In the event of a conflict arising, HC cultures tend to use indirect, non-confrontational, and vague language, relying on the listener's or reader's ability to grasp the meaning from the context. LC cultures tend to use a more direct, confrontational, and explicit approach to ensure that the listener receives the message exactly as it was sent. The following dialog is a typical communicating failure happening between people from the two contexts.

Case 1

Mr. Jones: It looks like we're going to have to keep the production line running on Saturday.

Mr. Wu: I see.

Mr. Jones: **Can you come in on Saturday?**

Mr. Wu: **Yes.** I think so. (with a hesitant tone)

Mr. Jones: That'll be a great help.

Mr. Wu: **Yes. Saturday's a special day, did you know?**

Mr. Jones: How do you mean?

Mr. Wu: It's my son's birthday.

Mr. Jones: How nice! I hope you all enjoy it very much.

Mr. Wu: Thank you. I appreciate your understanding.

Analysis and Discussion:

One of the problems in this case study is that Mr. Jones is being direct in his question while Mr. Wu is being indirect in his refusal. Firstly, a Chinese people will choose to ask indirectly as a kind of suppose: "you don't have any arrangement in Saturday?" instead of asking: "Can you come in on Saturday?" since Saturday is not a work day and ask someone directly makes it as a kind of force. Mr. Li on the other hand wants to refuse the requirement at the very beginning, and supposes his boss just offers a kind of euphemistic requirement. And to a Chinese, he will never refuse a boss's requirement directly. So when the boss asks whether he can come on Saturday, Mr. Li haven't answered no directly. Considering the "face" of the boss, Mr. Li tells him Saturday is the birthday of his son as a hint of refusing. However, as one comes from a low-context culture who expresses meaning in a direct way doesn't catch Mr. Li's indication. That's reason why the communication fails eventually.

B. liner vs. circular

Thought pattern is another distinctive characteristic within the two contexts. LC cultures tend to emphasize logic and rationality, based on the belief that there is always an objective truth that can be reached through linear processes of discovery. HC cultures, on the other hand, believe that truth will manifest itself through non-linear discovery processes and without having to employ rationality. In conversations, people in LC cultures will shift from information already stated to information about to be given, while HC communication will jump back and forth and leave out detail, assuming this to be implicit between the two interlocutors. Also case analysis will be given in the following part to exemplify the two thought patterns. The following case would be a good example to illustrate how the two contexts distinguish each other on the aspect of thought patterns.

Case 2

George Hall was attending a trade fair and looking for an opportunity to do business in China. He had been very successful in US and prided himself on his ability "to get things moving". Finally he approached Mr. Li's company which he thought would be most responsive to his products. Since he had read that Chinese find getting down to business immediately too abrupt and rude, he began a casual conversation, eventually leading up to the topic of his products and suggesting how Mr. Li's company might benefit from using them. George then suggested that he could

arrange to get together with Mr. Li and provide more specifics and documentation on his products.

Mr. Li responded in fairly good English, "**That would be interesting.**"

Knowing that he had only a few days left in Beijing, George wanted to nail down a time. "When can we **meet**?"

"Ah. This week is very busy," replied Mr. Li.

"It sure is," said George, "How about 10 o'clock? Meet you here."

"Tomorrow at 10 o'clock?" asked Mr. Li thoughtfully.

"Right," said George, "I'll see you then?"

"Hmm, yes; why don't you come by tomorrow," was the reply.

"OK," responded George, "It was nice meeting you."

The next day at 10 o'clock he approached Mr. Li's company's exhibit only to find that Mr. Li had some important business and was not able to meet with George. He called back later in the day and was told that Mr. Li was not available.

Analysis and Discussion:

In this case, besides the difference of directness and indirectness, the failure also results from people's pattern of thought from the two different contexts. George Hall, coming from a culture of low-context has set his purpose at the very beginning of their communication. Thus all the words he used to convey his meaning goes to the object directly, and in his context, the purpose of communication or what the two talking about is involved in the situation that they may have a cooperation in the future. So when hearing: "That would be interesting." "Why don't you come by tomorrow." He takes it as an indication of allowance. However, for Mr. Li, who comes from a low-context, he didn't take their talking seriously. For him one time communication doesn't mean they will have a future cooperation. And he supposes George will not take his words directly when he uses an indirect refusing way.

C. verbal vs. nonverbal

HC communication was identified by Hall as involving "more of the information in the physical context or internalized in the person" (Hall, 1976, p. 79); greater confidence is placed in the non-verbal aspects of communication than the verbal aspects. Communication in LC cultures was identified by Hall as "just the opposite [of HC communication]; i.e. the mass of information is vested in the explicit code" (Hall, 1976, p. 79).

Face-to-face communication in HC cultures is thus characterized by an extensive use of non-verbal strategies for conveying meanings. These strategies usually take the shape of behavioral language, such as gestures, body language, silence, proximity and symbolic behavior, while conversation in LC cultures tends to be less physically animated, with the meaning depending on content and the spoken word.

Case 3

Li Hong is a Chinese student who studies in America. Before she went to America, she had never lived apart with her parents. Although Li Hong and her mates went well in study and daily life, there is still a thing that made her mates uncomfortable, that is, Li Hong seldom did cleaning of the room and never made up her own desk. Her roommates gave Li Hong some lighthearted reminders such as joking about how they hated cleaning, but this didn't produce any positive results. So the American roommates decided to discuss the problem directly.

One evening in the room, one of her roommate asked: "we don't know whether it is the same situation in China that one needs to take the responsibility of cleaning the room on turn, but in America we do. It is really a problem troubling us, so can we have a talk?"

Li Hong was silent and stared at the table.

Her mate tried again: "we hope you would spend time in cleaning the room, if you are business the day and have no time to do it, it will be ok, but just do it when you are not involved in some immediate situation."

Li Hong didn't say anything. She didn't look at her roommates and just stared at the table, with face turning into pale.

Her mates tried again. "We're not angry, just confused, tell us what you're thinking. We want to understand your point of view."

More silence.

Finally the roommates couldn't tolerate Li Hong's silence any longer. They became angry and one of them said: "you know, in this culture it's very rude to stay silent when someone is trying very hard to resolve a misunderstanding."

Analysis and Discussion:

In this case, those American roommates finally annoy of Li Hong's silence, since Americans rely on talk to make an

agreement and resolve a conflict, while Chinese use indirect and silence to pass their feelings. Actually, Li Hong is also angry when her mates continuously ask her questions about the same subject which embarrasses her most. But Chinese people tend to keep silent, using nonverbal codes to impart their feelings. And American goes the opposite. For them meaning is conveyed through language not by guessing from others' performance or the circumstance they are in.

3. Tips for communication between high-context and low-context

As cross-cultural communicators, having the awareness of high-context and low context with different cultures especially the differences within the two, can help to lessen and even prevent conflicts, and make the communication smoother and easier.

Generally, low-context communicators interacting with high-context communicators should be mindful that

- (1) nonverbal messages and gestures may be as important as what is said;
- (2) status and identity may be communicated nonverbally and require appropriate acknowledgement;
- (3) face-saving and tact may be important, and need to be balanced with the desire to communicate fully and frankly;
- (4) building a good relationship can contribute to effectiveness over time; and
- (5) indirect routes and creative thinking are important alternatives to problem-solving when blocks are encountered.

High-context communicators interacting with low-context communicators should be mindful that

- (1) things can be taken at face value rather than as representative of layers of meaning;
- (2) roles and functions may be decoupled from status and identity;
- (3) efficiency and effectiveness may be served by a sustained focus on tasks;
- (4) direct questions and observations are not necessarily meant to offend, but to clarify and advance shared goals; and
- (5) indirect cues may not be enough to get the other's attention.

Conclusion

Although this paper mainly deals with the cases of communication between American and Chinese, Hall's distinction of high and low context, as elaborated in his work, can be identified through almost all the countries with typical cultures. Since context plays really an important role in the cross-cultural communication, a well understanding of the differences within contexts is quite necessary. And knowing the distinctive characteristics between the two contexts, then generalizing guidance for communication would also be quite beneficial.

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Discussion on Developing Higher Vocational Education at Undergraduate Course Level in Shandong Province

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This paper is an early fruit of the Shandong vocational education and adult education's "11th five-year" planning project (No.2006LY004) "Develop Higher Vocational Education at Undergraduate Level".

Abstract

To develop higher vocational education at undergraduate level is to meet the objective needs for modern economic development. It is an inevitable requirement for perfecting the higher vocational education structure in China and also an urgent need for the popularity of higher education in China. This paper discusses the definition of higher vocational education's connotation and the school-running orientation, analyzes the present situations of higher vocational education in Shandong, puts forward the tactics and ways for developing higher vocational education at undergraduate level in Shandong province.

Keywords: Higher vocational education, Undergraduate course level, Shandong province

Social development and scientific and technological progresses bring about continuous changes for human being's production activities. At different times, conditions of production activities determine social requirements for professions and labor divisions, which in turn determine the requirements for types of talents, and further determine the education structure. Since the reform and opening, China economy develops fast. The modernization in certain regions and industries reaches a higher degree. Especially after China's WTO entry, facing an open global economic system, China's economic structure should be adjusted extensively according to the requirements of the new times, which will directly lead to the emergence of amounts of occupations based on the high-tech industry. These new occupations demand for higher and more technologies. Technologists in these occupations should not only master comprehensive specialty theories, but also know the practical operation of high technologies and advanced equipments. Therefore, to properly develop higher vocational education at undergraduate level is to meet the objective need. Meanwhile, it is meaningful to drive the popularity of higher education and perfect the structure of China's higher education.

As a well-developed economic province, Shandong's economic structure has gained fast development during the "11th five-year" period. In the "11th five-year" plan, Shandong aims at building a strong economic province, especially strengthening the modern manufacture and new industrial development, realizing the adjustment of industrial structure and the conversion of economic growth modes. The actualization of peninsular city group strategy, the expedition of urbanization, and the transfer of rural labors need to speed up the development of higher vocational education and training, what means more requirements for the quality and scale of higher vocational education. Therefore, to develop higher vocational education at undergraduate level is on the agenda. More and more people realize its importance. Presently in Shandong province there are 69 independent higher vocational colleges. The students in higher vocational colleges account for more than 50% of total students in higher colleges, so does the planned enrolling students in Shandong province. Higher vocational education has already taken on greater responsibilities for Shandong's higher education. However, in the author's opinion, Shandong's higher vocational education does not clearly establish the objectives of training, levels and orientation of running schools, and direction of development.

1. The definition of higher vocational education's connotation and school-running orientation

1.1 The definition of higher vocational education's connotation

Higher vocational education is an important component of higher education, which is a higher stage of vocational education, with the dual property of both higher education and vocational education. The so-called property of higher education means higher education in the educational aspect. Higher vocational education is relative to primary and middle vocational education, emphasizing on the vertical orientation in training objectives. The so-called property of vocational education means it aims at training technology-applied talents whose knowledge and ability structure stress on the special vocational orientation. Higher vocational education is to cultivate technology-applied talents who master necessary theoretical knowledge, possess stronger abilities in practice, and can adapt to the front needs in production,

construction, management, and service.

Higher vocational education can provide specialized education, undergraduate education, and master education. In the International Standard Classification of Education edited by the United Nations Educational, Scientific and Cultural Organization (UNESCO), the whole education system is divided into seven levels. The fifth level is the first stage of higher education, including the 5A type and the 5B type. The 5A higher education emphasizes on theories and helps to prepare for researches and high-tech professional jobs, while the 5B higher education on practices, techniques, and specialized vocations. Both can include many levels, such as specialized education, undergraduate education, and master education. The essential difference between higher vocational education and other education is the students' difference in types, instead of levels.

1.2 The orientation of higher vocational education's training objectives

The Ministry of Education, in its suggestions for enhancing the talents cultivation in higher vocational education, points out: "higher vocational education is an important component of China's higher education; cultivate all-round developed and high-tech applied talents who insist on the party's basic line, and meet and frond need of production, construction, management, and service; students should control necessary theoretical and specialized knowledge, especially the primary abilities and techniques needed in real work; they should keep better professional morals and dedications." In a word, higher vocational education is a kind of technological and vocational education based on the high school education, with property of higher education. It aims at cultivating all-round developed technology-applied talents and high-tech talents who meet the front needs of production, business, and service, in order to catch up with the international competition.

2. The present conditions of Shandong's vocational education

Since in 1999 China determines to expedite the development of higher education, the scale of higher vocational education in Shandong province has gained fast development. The students in higher vocational colleges account for more than 50% of total students in higher colleges, so does the planned enrolling students in Shandong province. Higher vocational education has already shouldered greater responsibilities for Shandong's higher education, contributing a lot to the popularity of higher education in Shandong province. The school-running idea, taking the service as the tenet, and employment as direction, has come into being. Some common colleges provide with higher vocational education at undergraduate level. Problems as follow still exist in two aspects.

(1) Inexact orientation of training objectives. The higher vocational education at undergraduate level is a new-developed thing in recent years in Shandong province. At present, the higher vocational education at undergraduate level is still at an exploring and experimenting stage. The different understandings toward higher vocational education at undergraduate level lead to inexact orientation of training objectives, without special characteristics. In practices, there are two trends: firstly, take the higher vocational education at undergraduate level as four-year specialized higher vocational education, simply enriching and expanding former specialized higher vocational education's training plans, running the higher vocational education at undergraduate level according to ideas and directions of former specialized higher vocational education; secondly, take the higher vocational education at undergraduate level as common higher education. The two trends can not embody the uniqueness of higher vocational education at undergraduate level, which make it fail to exert its effects on cultivating high-tech applied talents, and even lose its values. Meanwhile, the two trends will impact the whole development of higher vocational education negatively.

(2) No colleges provide with higher vocational education at undergraduate level in Shandong province.

According to the International Standard Classification of Education edited by the United Nations Educational, Scientific and Cultural Organization (UNESCO), higher vocational education should provide specialized education, undergraduate education, and master education. In the school aspect, colleges should provide with higher vocational education at undergraduate level. However, it is still an absence in Shandong province, which does not match the economic and social development in the province. Therefore, it is urgent for us to perfect Shandong's higher vocational education structure and construct one or even more colleges based on higher vocational education mode.

3. Ways and measures for developing Shandong's higher vocational education at undergraduate level

(1) Scientific orientation

Higher vocational education at undergraduate level is a kind of applicable higher education. It follows the Ministry of Education's Suggestions for Deepening the Employment-Oriented Reform of Higher Vocational Education, taking service as the tenet, social needs and employment as the direction, learning advanced school-running ideas and experiences from foreign countries, insisting on the close cooperation of industry, university, and research institutes, cultivating the high-tech and managing- applied special talents who meet the front needs of different industries with excellent vocational competence, super specialized techniques, strong innovation consciousness, and sustaining study potentials, and making them possess life-long learning ideas and sustainable development potentials.

(2) Change the education thoughts and renew education ideas

To renew the education ideas should serve as the forerunner of all innovations. Advocate building up healthy and positive professional values and ignoring the difference between vocational education and academic education. Set up a mutual recognition between degrees and vocational qualities and make vocational education become an important ring in the life-long study net. At present, in a sense people may despise technological training. They unilaterally value the undergraduates and graduates cultivated in common higher colleges. Amounts of education resources are input in theoretical education. Vocational education faces lots of difficulties in development. In order to change this thought, governments at different levels should begin from the practical needs of economic and social development and the construction of modern citizen education system, take the development of higher vocational education at undergraduate level into the general plan of local economic and social development, perfect relevant policies and regulations, allocate education resources reasonably, enhance their support, and make vocational education develop nicely as soon as possible. Colleges should insist on the directive thought “service as the tenet, employment as the direction, capability as the root”, for the sake of market and society, drive the close cooperation between teaching and production practice, between technology extension and social service, and turn the traditional education mode into the employment-oriented mode as soon as possible. Besides, colleges should positively make innovations for the school-running mode, emphasize on practices in teaching, adjust the structure of specialties, deepen the reform of curriculum, and cultivate students’ practical capabilities and specialized techniques in order to meet the market needs.

(3) Reform traditional common colleges and perfect higher vocational education system

At present, some common colleges in Shandong province are close to higher vocational colleges in talents training, especially for some engineering colleges. In author’s opinion, this kind of colleges can be reformed into higher vocational colleges at undergraduate level according to local economic development needs, enhancing students’ professional technique training, and meeting the social needs for higher vocational talents at undergraduate level. On the other hand, although some colleges in Shandong province set up higher vocational schools, most are at the specialized level. The author thinks that to cultivate higher vocational students at undergraduate level in common colleges is sort of to repeat the way of other higher vocational colleges. It can not make best use of the special advantages of common colleges. The best way is to transform the common colleges’ higher vocational schools into higher vocational colleges at undergraduate level, giving up the specialized vocational colleges.

(4) Turn some influencing specialized vocational colleges in Shandong province into higher vocational colleges at undergraduate level.

At present, there are 69 independent higher vocational colleges. Turn some specialized vocational colleges into higher vocational colleges at undergraduate level is good for the development of higher vocational education in general. But the approval of transformation should be examined strictly. Whether approve the transformation or not is determined by practical needs of local economic development and conditions of colleges. After the transformation, new higher vocational colleges should insist on the way of higher vocational education, establishing the development orientation clearly, and never think about the idea of comprehensive and academic college education.

(5) Enhance the construction of teaching staff and cultivate “double-type” teachers

Considering characteristics of higher vocational students at undergraduate level, teachers should not only possess strong theoretical knowledge, but also have rich practical experiences. They should firstly absorb and assume the knowledge of production, management, and service, and then convey and teach their students effectively. In a sense, they are “double-type” teachers. Therefore, it is necessary to enhance the construction of teaching staff. Select colleges that are competitive in higher vocational education field, in which establish training bases for higher vocational teachers. The emphasis is to cultivate young teachers’ teaching techniques and vocational consciousness, cultivating more backbone “double-type” teachers, and driving the improvement of higher vocational education at undergraduate level.

(6) Strengthen the construction of experiment and training bases

Higher vocational colleges at undergraduate level should rely on industries, local governments, and enterprises, and construct training centers in colleges and outside, striving for constructing several provincial standard training and experiment centers in higher vocational colleges at undergraduate level, and cultivating high-tech applied talents.

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Impediments to Women Accountants' Career Progression in Malaysia

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Abstract

The apparent conflict between family life and an accounting career appears to be negatively impacting the retention of women in public accounting (Stockard, 1990). Typically, accounting entails long hours, travel, and a stressful business environment. For many women, these negative factors are intensified by family obligations and the pressures of striving for acceptance in a traditionally male-dominated profession. This investigation set out to directly survey women in the accounting profession regarding their perceptions of their own career barriers in their organizations. In addition, the study was intended to identify possible reasons for women accountants to leave their organizations and ways to retain them. The study was intended to develop a survey questionnaire that would quantify and measure perceptions of the glass ceiling. Following the review of a wide body of literature about "glass ceiling" this study established a conceptual model which related the impediments to career progression. This conceptual model leads to the formulation of an empirical schema and the generation of testable hypotheses. The following measurable constructs or variables were established: (1) exclusionary environment; (2) family responsibility; (3) workplace benefit; (4) job flexibility; (5) corporate policies; (6) job stress; and (7) job demand. This study has practical implications for employers in considering the needs and problems of women accountants in the work force. Alleviating key problems should help employers acquire and retain women accountants for a longer time, thereby maximizing their hiring and training investment. More importantly, dealing with these issues would help intelligent and capable women to continue a career as a professional accountant.

Keywords: "Glass-ceiling" phenomena, Career progression, Women accountant, Malaysia

1. Introduction

Despite the dramatic increase in the number of female accounting graduates during the current decade, the number of women accountants continues to be very small and static. The number of women accountants entering the labour market

and the number of them holding top position is not reflective. Referring to a survey done by The American Institute of Certified Public Accountants (AICPA) 1991 as reported by Collins (1993), 59 percent of new graduates hired in 1990 by public accounting firms are female. Surprisingly, women have not been very successful in advancing in public accounting firms and few have made it to the partnership level. The Karpin Report 1995 found in Labourne (1996), has supported this where the number of women in management continues to grow, but the number of women in executive management position has not risen commensurably. Thus, there is a need to study this issue so as to find out the reasons that impede the female accountants' in Malaysia from holding top executive post. Furthermore, the findings will indicate whether the Malaysian female accountants' shared the same opinion with the reasons that hindered career progression with their counterpart from other countries. Besides, the findings will generalize the issue and bring forward for further global discussion. Extensive literature on impediments to career progression with evidence from USA and Europe, indicates that women face obstacles which are not faced by their male counterparts (Merrell and James, 2001; Scheuermann et al., 1998; Linehan and Scullion, 2001). The available literature on the accountancy profession shows that this is not exception to the pattern reported in the general literature.

The AICPA Special Commission on the Upward Mobility of Women Special Committee (1989) found several issues that impede the promotion and retention of women in public accounting. The reasons are childcare and family responsibilities, awareness of success criteria, the perception problem, cultural and attitudes toward women, stress, dating and marriage, and involvement in professional associations. Stockard (1990) stated that the conflict of family life and an accounting career appears to be negatively impacting the retention of women in public accounting. She mentioned the key problems retaining women in the employment were overtime, job stress, flextime opportunities, being more understanding when employees request time to handle family-related problems. On top of that Coughlan (2002), identified four other reasons that lead the female accountants to leave their profession. These are lack of flexibility, glass ceiling, not happy with working environment and feeling unchallenged in their jobs.

Although women entered the paid labour force in growing numbers over the last 25 years (Koshal et al., 1998), and now constitute 49 percent of the Malaysian workforce, their progression to the ranks of senior management seems to be blocked by invisible, rarely penetrable barriers – the “glass ceiling”.

Since its genesis in the 1970s, the term “glass ceiling” has come to symbolize the invisible barriers blocking women from rising to the top of the corporate pile. Whether at work or in politics, this artificial barrier – an obstacle fashioned from attitudinal and organizational prejudices – remains in effect despite decades of social development and attempts at advancement in gender equity. The literature on the glass ceiling suggests that beliefs and attitudes held by organizational members as well as contextual aspects of the organization contribute to the barriers that impede women's career advancement. Ragins et al (1998) cite corporate culture as the primary barrier to women's advancement into upper management. The women they surveyed described inhospitable and exclusionary environments as barriers to their advancement and can influence their supervisors' evaluations of their performance and potential. Davidson and Cooper (1992) discussed role stress as a factor with the multiple role demands inherent in running a career, a home and a family.

While the metaphor of the “glass ceiling” helps to explain why women have poor representation in the power, leadership and decision-making arenas, it does not explain why a ‘glass ceiling’ actually exists. According to Still (1994), cultural factors have emerged as the significant impediment to women's progress through the ‘glass ceiling’. She believed that a cultural dilemma arises whenever either a male or female enters a non-traditional area and it needs a very concerted effort to overcome the prejudices, stereotypes, traditions and accepted practices if more than just a token number of women are to be given their chance in senior management. In 1993, a longitudinal study of four Johnson & Johnson (J&J) companies by Families and Work Institute, New York found evidence of positive links between family-responsive programmes and a range of desired outcomes. The J&J study found indications that the company's policies contribute to the retention of those who use them, decrease negative spillover to family and personal life, and enhance loyalty and job satisfaction. The study acknowledge that the impact of family-supportive policies is mediated by aspects of the work environment. In the same year, Catalyst also conducted a longitudinal study of employees in 70 companies offering flexible work arrangements. The study sought to examine the impact of flexible work arrangements on career goals, paths, and advancement by interviewing 45 women who used flexible work arrangements. Catalyst concluded that although flexible work arrangements result in “slowing down” of careers, they enhance the retention of employees and allow women to maintain a career identity, professional skills, and career momentum. However, according to Schwartz (1996), while definitive answers about the career impact of using family-friendly policies remain elusive, strong evidence exists that these policies do not operate in a vacuum. Researchers and individuals working to implement family-friendly policies emphasizes that supervisor attitudes and company culture affect both whether policies are used and the repercussions that result for those who do use them. She affirmed that a consensus has emerged that, despite the support they offer, family-friendly policies will not assist in dismantling the glass ceiling until attitudes of the supervisors and co-workers, as well as corporate cultures and traditional career practices begin to change.

In Malaysia, Koshal et al (1998) did a study on how men and women at different ranks feel about women's advancement in the organization, the differences in the leadership styles of men and women managers and their effectiveness in achieving organizational goals. They found that women do not perceive equal opportunities for career advancement. Women perceived that they are under-represented at all management levels, that equity in compensation is still an issue, and they need to work harder than men for recognition and rewards. In India, Nath (2000), interviewed 20 women executives to examine the impact of social, organizational and personal biases on the progression of professional women. She found that women managers were successful because of the interplay of organizational and familial support, coupled with the individual drive for success. Wood and Lindorff (2001) tests the prediction that there will be sex differences in how middle managers perceive promotion requirements. Results from 351 male and 156 female managers indicated that sex does not strongly influence the belief that every manager receives the same opportunities for advancement. On the same note, Jackson (2001) explores how women in middle management perceive their career advancement opportunities and what they consider their organizations to be doing to support their advancement. Overall, results suggest that the glass ceiling is still an issue for women within organizations. In Omar and Davidson (2001)'s comparative cross-cultural overview of women in management, they emphasized that empirical evidence derived from the numerous studies on women managers (see Cleveland et. al. 2000; Davidson and Cooper, 1992; Davidson, 1997; Donnell and Hall, 1980; Morrison et. al. 1992; Parker and Fagenson, 1994; White et. al. 1992) have however shown that while each of these perspectives have contributed towards understanding the barrier women face in management, each on its own cannot satisfactorily explain the pervasiveness of the glass ceiling.

A survey by The Upward Mobility of Women Special Committee in 1988 identified seven obstacles confronting female accountants. First is the cultural attitude towards women where outdated and negative ideas about women still exist in the workplace. Second is the perception problem where employers deny that obstacles exist. Third is the awareness of success criteria where not all women are able to identify the subtle criteria necessary for advancement to top level positions. Some corporations have instituted programs to help women become aware of criteria necessary for a success. For example meeting regularly with the president and CEO to discuss salaries, job advancement, sexual harassment, work-family conflicts and other matters if concern. Fourth is the child care and family responsibility. These responsibilities can create problem if women are interested in having a career. However, some employers have established on-site or off-site child care centers, part-time schedules, extended leaves of absence, flextime schedules, vacation and sick leave policies to accommodate working parents. Fifth is the stress. Women accountants is in greater stress than men accountants because of the family and management pressures, cultural prejudice, and the perception that to succeed a women's performance must exceed that of her male colleagues. Sixth is the dating and marriage. As more women enter the accounting profession, the possibility of emotional involvement among co-workers increases that may cause friction in an organization. Lastly, is the lack of women involvement in professional associations.

Supplementing the above findings, Wellington. found in Stern (1998), reported that the percentage of talented women who make it to the top will be smaller because they are the victims of myths and stereotypes, like the idea that once they have a child they will not be as committed to their jobs. Similar studies conducted by Child (1992), reported some of the complaints made on female accountants, among others as being too emotional; after the birth of a child they have less interest in their career; travel and overtime are problems as soon as a female accountant has a child; women quit their jobs when their husband relocate, and women do not work well with other women. However, D'Angelo (1994) declared that childbirth does not reduce the commitment of the women. This has been supported by the survey conducted by AWSCPA/ASWA (American Society of Women Accountants) where 61 percent respondents stated that having a child does not interrupt their career. In 1994 D'Angelo interviewed female and male CPAs and found that most of the women agree there is a difference in the way female and male CPAs communicate and this impacts the way each gender interacts with clients and colleagues. Women accountant was cited to address problem with more creativity, more communicative, the communication style open opportunities in the profession, and have the personality needed to serve the public.

With the efforts taken to retain the skill and expertise of female employee, many leave the profession after several years. Again, this leads to the anxiety to further examine the issue. According to Labourne (1996), a survey found that 63 percent of the former women accounting members had left after five years or less. This phenomena need to be studied so as to find out whether the Malaysian female accountants leave the profession due to demanding career (Hooks and Cheramy 1994, and Kinard et al. 1998) or other more relevant issues. This finding is important as it can assist the policy makers in the implementation of future action to be taken with regards to the best interest of the female accountants.

This study will assist in providing possible answers to the following research questions:

- i) Do women accountants perceive that there are organizational barriers that impede their career advancement in their companies?
- ii) Do women accountants perceive that their organization have undertaken initiatives to remove career-impeding barriers that impede their success?

iii) How do women accountants perceive their chances for success in career advancement in their organizations?

The research objectives of this study are to model, define, measure and validate a set of constructs that are relevant to career progression as manifest from the attitude and behaviour of women accountants and to empirically test for their relationships. Specific objectives then, are as follows:

To examine factors affecting career progression among women accountants in Malaysia

To identify possible reasons perceived by women accountants for leaving the job

To identify possible ways perceived by women accountant which will make them stay in an organization

2. Methodology

2.1 Scope of study

The scope of this study has been delimited in terms of the selection of sample. The sample is limited to female chartered accountants who are registered with The Malaysian Institute of Accountants (MIA). The study focused on female accounting professionals who have been working for more than five years either in the public and commercial sectors and having its place of work located in Klang Valley. The reasons for confining the units of analysis to these subjects are due to the concentration of companies having its place of business in the Klang Valley and that career progression in any profession is usually expected after five years in employment.

2.2 Reasons for leaving and ways to retain women accountant

Women make up more than half of those employed as accountants and auditors in the United States today. At least 50 percent of those women have children. Many are leaving the accounting profession when their employers have not been able to offer creative solutions that help the working parent to strike a balance between personal and professional lives. According to the Educational Foundation for Women in Accounting Report found in Epstein (www.careerbank), 23 percent of all women CPAs leave profession for more than six months because of their family responsibilities. This is supported by Karpin Report 1995 (Labourne, 1996), a survey found that 63 percent of the women in the accounting profession left after five years or less. A recent American study reported by Coughlan, (2002), identified four major reasons for leaving that was cited by the women. These are lack of flexibility, glass ceiling, unhappiness with work environment and feeling unchallenged in their jobs.

Hayes and Hollman, (1996), suggested the ways that an accounting firm can remove obstacles to advancement and accommodate the unique needs of its mature and committed female employees. There are innovative schedules, low-cost day care, mentor programs, career enhancing opportunities, and diversified training. Doucet and Hooks (1999), stated that family-friendly policies, flexible work arrangements and the use of technology have helped reduce the turnover rate among women. On top of that, they also added that women must also be proactive to retain their careers by acting like an executive from day one, find a mentor, communicate their needs, do not be defeatist, and be prepared to negotiate. In the year 2000, Epstein the CEO of Deloitte & Touche, make some recommendation on how companies can retain valuable assets of working mother. These are reduced hours/workload, flextime, childcare at work facilities, telecommuting, and initiatives. He commented that flexible work arrangement sharpens their competitive edge and it is one of the ways to keep talented people in the firm.

According to Stockard (1990), the conflict of family life and an accounting career appears to be negatively impacting the retention of women in public accounting. She identified the key problems in retaining women in employment are overtime, job stress, flexi time opportunities, and being more understanding when employees request time to handle family-related problems. She also suggested that, by alleviating the key problems should help employers acquire and retain women employees for a longer time, thereby maximizing their hiring and training investment. D'Angelo (1994) reported that most women who succeed at the balancing act stress the importance of a supportive family environment. D'Angelo (1994), reported that 'flex-time' or 'alternative work arrangement' have emerged as a suggestion to retain women CPAs because firm have begun to realize that the cost of training new employees is far more expensive than adjusting a current employee's hours. Coughlan, (2002) also suggested that firm should promote mentoring programme to retain the women accountant from leaving

2.3 Conceptual Framework

Based on the extensive literature on impediments to women's career progression, the career barriers can be explained from the internal and external perspectives. The various factors contained in the conceptual model in Figure 2.1 will need to be operationalised for the purpose of developing and empirically testing hypotheses. An empirical schema can be presented as an extension of the conceptual model (Figure 2.2). It depicts the relationships between independent and dependent variables to be used in this study. There are seven independent variables and they are hypothesized as having direct effects on the dependent variables.

Insert Figure 2.1 here

Insert Figure 2.2 here

2.4 Hypotheses Development

Lack of appreciation from superiors and management support, poor communication among colleagues, job specification not clear, and performance evaluation not transparent and too rigid are items of relevance to the label “exclusionary environment”. Frequency of traveling outstation, lack of support from spouse and family and possibility of relocation to another city involve balancing family commitment with job demands are relevant to the factor which is labeled family responsibility. Employment benefits covering such facilities as medical, retirement and pension, sick leave and short term disability insurance are items of relevance to the label of ‘workplace benefits’.

The respondents perceived the importance of policies that recognize and accommodate the balance between work and family responsibilities. Such practices include flexible hours, child care and job sharing. Women with major child rearing find it difficult to engage in after-hour activities, therefore missing out on the opportunity to interact with decision makers. Ability to work from home, housing assistance and on-site day care centre relate to the respondents’ needs for job flexibility and these three items are categorized likewise. The respondents’ quest for a fair annual performance appraisal and performance bonus policy together with salary adjustment tied to performance evaluation reflects the undue elements of corporate practices.

Job stress is identified as a factor with multiple role demands inherent in running a career, home and a family (Davidson and Cooper, 1992). Five sources of stress faced by women accountants identified by a team of researchers are: job discrimination, cross-gender relations, career paths, time pressures and home versus work. Overtime payment and policies for continual progression to partnership were identified as elements of job stress. Too heavy workload and too often new tasks being assigned are relevant to the factor labeled “job demand”.

Hypotheses depicting the relationships between the independent and dependent variables were hypothesized as follows:

- H₁ Components of exclusionary environment as perceived by women accountants are significantly related to career progression
- H₂ The family commitment components as perceived by women accountants are significantly related to career progression
- H₃ Elements of workplace benefits as perceived by women accountants are significantly related to career progression
- H₄ The extent of job flexibility as perceived by women accountants is significantly related to career progression
- H₅ The extent of corporate practices and policies as perceived by women accountants is significantly related to career progression
- H₆ The extent of job stress as perceived by women accountants is significantly related to career progression
- H₇ The extent of job demand as perceived by women accountants is significantly related to career progression

2.5 Sampling and variables measurement

2.5.1 Selection of subjects for the sample

This study is designed to collect quantitative data through a survey from the women accountants working in companies located in Klang Valley. Questionnaires were sent to 3,000 female chartered accountants who are registered member of The Malaysian Institute of Accountants (MIA). The survey was mailed with a covering letter explaining the aim of the study and assuring respondents of the confidentiality of their responses. To return the completed questionnaires, a self-addressed stamped envelope is attached to each questionnaire.

2.5.2 Questionnaire

Studies focusing on women accountant as the unit of analysis frequently use questionnaires to obtain data for dependent and independent variables that would otherwise be publicly unavailable. Examples include studies on perceptions of issues related to women employed in public accounting (Trapp et. al., 1989); a factor-analytic approach profiling job selection differences of male and female accountants (Ahmadi et. al., 1995); employment gaps, work satisfaction and career advancement among women chartered accountants (Burke and McKeen, 1995); recruitment, examination performance and career progress of women chartered accountants (Gammie and Gammie, 1995); and career and family (Stockard, 1990). In designing the questionnaire, preliminary discussions were held with several women accountants for the purpose of gaining insights into prevailing circumstances relating to obstacles in preventing them to move up the ladder at the same pace as their male counterpart. Some useful inputs were collected from these discussions with female chartered accountants and used in the adoption of some questions in the instrument.

2.5.3 Variables measurement

In developing the independent variables, suitable instruments tested in selected prior studies were sought. Those drawn upon were as follows: Burke and McKeen (1995) for use of employment gaps, work satisfaction and career

advancement; Wood and Lindorff (2001) for gender differences on career progress; Nath (2000) for the impact of social, organizational and personal biases on career progression; and Bond (1987) for indicators of “accommodating workplace”.

Table 1 list down four components of impediments and the items underlying each independent variables which are believed to have some influences on the dependent variables. Dependent variables are devised from two measures which are self-reported facts about number of years in current position and number of years working. Articles from McDermott (1998); Collins (1993); and Scheuermann et. al. (1998) lend support to the identification of measures of the dependent variable, career progression. The variable measurement for each of the independent and dependent variables are assessed on a 5-point “low/very high” scale of level of importance and level of effect on job performance.

3. Results and Discussion

3.1 Response from respondents

A total of 396 usable responses were received, giving a response rate of 13.3%. Fifty percent of the respondents were in the top management positions namely, as Finance Directors, Chief Financial Controller, Chief Financial Officer, Accountants and Auditors. Twenty percent of the respondents hold managerial posts such as Account Manager, Audit Manager and Finance Manager and 119 respondents (30%) are at junior level such as Assistant Manager and Account Officer. Fifty percent of the respondents worked in trading and/or servicing companies, 65 (16%) of the respondents worked with companies manufacturing industrial products, and 58 (15%) were attached with finance companies. Out of 396 respondents, 349 (88%) of them have served their current employers for less than 5 years, a total of 50 (12%) of them have been in their current position between 5 to 10 years and about only 5 of them (1%) have been serving their current employer for more than 10 years.

Sixty four (16%) of the respondents indicated that they have been working for 5 years and below, 188 (48%) respondents have been working between 6 to 10 years and about 144 (36%) have spent more than 10 years of their life earning a living. 354 (88%) of the respondents have changed jobs throughout their career and 42 (11%) of the respondents admitted that they have yet moved to another organization. Out of 396 female accounting graduates who are registered as members of MIA, 311 (78%) are married and 87 (22%) of them are single.

Table 2 also gives the results of Cronbach alpha reliability tests. It shows that Factor 6 and Factor 7 have poor internal reliabilities with alpha equals to .4087 and .5728 respectively. Despite these poor results, the 2-item measure of job stress and job demand are retained respectively in this study. Their poor reliabilities are to be noted as limitations and any interpretations of their relationships with other variables are to be treated with caution. The other four constructs are found to be reliable with Cronbach alpha ranging from .6914 to .8024.

3.2 Tests for Confounding Effects of Demographics

Preliminary analysis is also undertaken to determine whether any demographic factors associated with the respondents or their companies have a confounding effect on the dependent variables and, therefore need to be controlled for in the testing of the hypotheses by regression analysis. The existence of significant relationships between the demographic variables and the dependent variables can be gauged from Pearson’s correlation coefficients. Correlation coefficients give an indication of both the strength and the direction of the relationship between the variables. Demographic attributes of present designation, number of years in current position, total number of years working and marital status are included as dependent variables in the empirical schema and therefore, its effects on the independent variables will be made explicit in the regression analysis in latter sections of this chapter.

Table 3 presents the bi-variate correlations the demographic variables (numbers 1 to 3) and the dependent variables (numbers 4 to 6). These relationships are highlighted inside the box in **Table 3**. The results indicate that there are no significant correlations between industry currently attached and any of the dependent variables. Therefore, this demographic variable is unlikely to have a confounding effect. However, marital status of the respondents is significantly positively correlated with each of the dependent variables of number of years in current position, total number of years working and the number of times changing jobs. Therefore, marital status will need to be included in the subsequent regression analysis. Further, significant correlations between the demographic variable of present designation and dependent variable of total number of years working, suggest that subsequent comparative analysis between top, middle and junior level of management should yield some significant differences.

3.3 Hypotheses testing for effects on career progression using regression analysis

Multiple regression analysis is used in explaining the effects of women accountant’s perception of impediments on career progression. It was in H_1 that hypothesized the exclusionary environment arising from lack of appreciation from superiors, lack of management support, work specifications not clear, poor communication among colleagues, performance evaluation too rigid and not transparent, would have an impact on career progression. It was hypothesized in H_2 that the women accountants’ perception towards family responsibility *vis a vis* the need to travel

outstation frequently, lack of support from spouse and family, the need to balance family commitment with job demands and the possibility of being relocated to another city, would have an influence on their career progression. H_3 predicts that the workplace benefits such as medical benefit, retirement benefit, sick leave and short term disability insurance, is significantly related to career progression. In H_4 it was hypothesized that job flexibility in terms of ability to work from home, housing assistance and on-site day care centre, would have an influence on women accountants' perception on the existence of "glass ceiling". Corporate practices on annual performance appraisal, salary adjustment tied to performance evaluation and performance bonus policy are hypothesized in H_5 to have an influence on career progression. In H_6 it was hypothesized that issues such as disparity in payment of overtime rate and policies relating to continual progression to partnership caused job stress and would influence the women accountants' perception on their upward mobility in the organization. Finally, in H_7 job demand arising from workload too heavy and new tasks being assigned too often would have an influence on women accountants' perception on career progression.

Table 4 presents the result of the regression analysis to explain or predict the relationship among the independent variables and the dependent variable (total number of years working and number of years in current position). The regression model has produced a fairly strong model fit with adjusted R^2 of .061. As can be seen in Table 4 the results of the regression analysis give non-significant between the six independent variables against dependent variable of career progression. The significant effect on career progression exist in terms of job stress which is significantly negatively related to career progression. Therefore, H_1 , H_2 , H_3 , H_4 , H_5 , H_6 and H_7 are rejected.

The potentially confounding demographic variable of marital status and the number of times changing jobs are also included in the regression model. Table 5 presents the results of the regression analysis between marital status and number of times changing jobs as independent variables and career progression, as dependent variable. An examination of the results reveals that there is a significant model fit, with reasonable levels of adjusted R^2 of .132. The regression coefficient in Table 5 reveals significant positive relationship between marital status and career progression. They reinforce findings about the relationship between marital status and its effect on women's career advancement as found in the literature on "glass ceiling", an invisible barrier that keeps women from rising above a certain level in corporations.

3.4 Reasons for leaving and ways to retain women accountant

Open-ended questions were used to solicit the recipients' reasons for leaving the organization. Respondents were given two open-ended questions where they were asked to indicate three possible reasons why women in the accounting profession in their organization left their job and what are the measures which organization needs to consider in order to retain them. The answers were then categorized as shown in Table 6. The female respondents indicated reasons why they left their firms. The categories included unsuccessful transfers, management turnover within the firm, better offers, discontent with compensation and personal reasons. Respondents believed they were less accepted by partners than were their male counterparts and nearly half reported having fewer advancement opportunities. In addition, they indicated that the reason they left their employer was stress, better opportunity and no chance for advancement. Personal conflicts fell into the categories of perceived discrimination and cross-gender relations. Comments indicated problems working with other staff members, delays in promotions of female employees by particular members of management, and too little or unequal pay. It appears that many of these problems are gender specific and are the cause of these women's stress. Many of the women commented that they were discriminated against or made to feel uncomfortable in their roles.

Women cited inflexibility in working hours and lack of access to child care. Many women accountants remain frustrated by what they see as patronizing and excluding behaviour by some of their male counterparts. They felt that the job is too demanding causing them to suffer from stress. They claimed that they were given no proper job specification which makes them less motivated. Travel and relocation are also often common elements of managerial jobs. Respondents perceived that refusing to travel or to work evenings or weekends is detrimental to their career (Swiss and Walker, 1993). Work-family policies such as child care and flexi-time are the most consistent benefits quoted by the respondents that will enhance retention of employees. These views were supported by various studies which cited positive impact of work-family initiatives on recruitment, productivity and employees attitudes. Greater time flexibility is the family-friendly policy most desired by women employees. The provision of extended leaves, part-time work, flexibility and family supports (parental leave for men, flexible benefits, support during relocation, and child care) would enable companies to retain talented women who- without such mechanisms for achieving the balance they desire – might otherwise leave (Schwartz, 1989). Corporate work-family initiatives designed to acknowledge and support those juggling the multiple demands of work and family life, should be particularly beneficial to women's career progression (Schwartz, 1996). Systematic change must be undertaken, if employers efforts to address work-family issues are to be effective in supporting both career development and family life for women.

The attitudes of supervisors and colleagues are seen by women accountants as disturbing factors in their career. Having a supportive supervisor and a workplace that accommodates personal and family needs is associated with taking

more initiative on the job. Impact of family-friendly policies and programmes is influenced both by supervisor support and company culture. Corporate culture – the norms and values that are communicated through supervisors' attitudes, career paths, and organizational practices for assessing and developing the potential of employees – has been shown to exert a strong influence on the use of leaves and flexible working arrangements.

One reason frequently given for the high turnover rate among women accountants is that women leave the workforce earlier than men because they lack the necessary job commitment. Many of the women consciously choose not to strive for the top as their priorities lie outside the workplace. This is supported by Mohammad Ahmadi et al (1995) and Gammie and Gammie (1995), in their studies which showed that generally, family characteristics and job circumstances have a larger direct impact on job commitment in women. Women who worked for the most accommodating companies were more satisfied with their job, were sick less often, took fewer sick days, worked more on their own time, worked later into their pregnancies, and were more likely to return to work than women in less accommodating workplaces. According to Piotrkoski et al (1993) "accommodating workplace" include sick leave, disability leave, parental leave, job protection, health insurance coverage during leave, a supportive superior, flexible scheduling and child-care assistance. Lack of training for women hinder them to effectively manage their careers and contribute with confidence and initiative to the profession, their employers and the business community.

4. Conclusion

The findings of this study are fairly consistent suggesting the importance of family related issues to women in accounting. Some suggestions were made to include offering flexible time, reducing travel time and providing more child care benefits to the women in the accounting profession. Factors identified influencing turnover in this study were job satisfaction, dissatisfaction with the firm direction, overtime demands, quality, diversity and length of job assignments, lack of opportunity for independent thought and action, lack of guidance and lack of maternity/paternity leave policy.

The current study examined attitudes toward the job, motivational factors, perceived discrimination and intention to turnover of women in the accounting profession. The survey confirmed a finding in previous surveys that travel is not generally perceived as a problem. Travel was not a significant factor, but job stress, overtime and the existence of a two-career household were seen as affecting either the marriage or marital status. The study revealed that some respondents perceived that having children had a negative effect on their employment opportunities. They were convinced that children impaired job flexibility and possibilities for promotion.

It is apparent that there has been some progress regarding barriers related to glass ceiling. It appears that the women in this study do perceived several barriers to career advancement in their organizations.

The findings and conclusions from this study should be read with the following limitations in mind:

- (a) limitations embodied in selected sample;
- (b) limitations embodied in the design and administration of the survey;
- (c) limitations of the data analysis; and
- (d) limitations of scope in interpreting the results.

The limitations on sample size which confined to registered MIA members ignored those women accountants who are not registered with MIA, whose characteristics might be significantly different. The inclusion of non-members should help in triangulating the findings in this study. The study did not gather information from employing organizations, which could shed light on the policies and practices they use in their approach to the women career and whether these have changed over time and in which directions.

Second, limitations are embodied in the design and administration of the survey used in this study. The trustworthiness of data collected from field surveys depend on how carefully the questionnaire is designed and administered. Not all variable measures in the questionnaire have been based on replications of previously developed and tested instruments. However, the items developed for all measures in the questionnaire have been drawn from various literature sources, and the questionnaire was piloted to check that all items were comprehensible to respondents. As detailed in Chapter Four, factor analysis was applied to the set of items to verify that the variables adopted in this study were measured in a uni-dimensional way.

Third limitation are in the data analysis used in this study. Multiple regression equations used in this study contain up to seven independent variables. This large number of variables in the empirical model presents the prospect of multicollinearity. Multicollinearity prevents the independent variables from exhibiting a substantially unique contribution to the explanation or prediction of the dependent variable, and also causes the regression coefficients to be highly unstable. In this study, the regression equations all satisfied variable inflation factor (VIF) tests for the level of multicollinearity.

Fourth limitation is that data has been analysed in this study, and conclusions have been drawn, on the basis of a single research method, that is, a field study. This raises the issue of “common method variance” (Podsakoff, 1986). Spector et al (1997) have argued that the most effective way to overcome common method variance, other than methodological weaknesses is to test ideas with different methods. For example, an experimental verification could be provided of the relationships found in a survey method. This study, however, has not taken a multiple method approach. In defence of a single survey method, evidence indicates that people often accurately perceived their social environment (Balzer and Sulsky, 1992) and that common method variance may not be a much of an artifact as previously assumed (Bass and Avilio, 1990). Although questionnaire surveys serve to highlight statistical average relationships between formally measured variables, they do not reveal the informal arrangements that exist, or how these may affect behaviours in organisations.

The results in this study must be interpreted within the confines of the hypotheses that have been generated. Possibilities exist for alternative specifications of hypotheses and regression equations. Finally, as with any empirical studies, the results can be generalized only to the population from which the sample was drawn.

This study has practical implications for employers in considering the needs and problems of women accountants in the work force. Alleviating key problems should help employers acquire and retain women accountants for a longer time, thereby maximizing their hiring and training investment. More importantly, dealing with these issues would help intelligent and capable women to continue a career as a professional accountant. Excessive overtime hours required during peak periods can be reduced by recruiting additional part-time or full-time staff. Techniques in reducing job stress include providing job stress awareness seminars, seminars on minimizing the effects of stress, and on-site exercise/ relaxation classes during the workday. Stress from a two-career household can be reduced by employers offering more flexi-time opportunities. A feeling of discrimination against women with children can only lead to employee dissatisfaction and discontent. Employers should give assurance that discrimination does not exist and remove the perception among female employees that children may be used as a criterion in considering promotions.

Questions such as the following could be examined:

Is training provided for employees to explain relationship between work-family policies and upward mobility

Do policy guidelines for leaves and flexible work arrangements address career-impact issues and the concerns held by both employees and managers?

Implications for future research can include:

- a) a focus on organizational governance and its policies and practices in the career development domain, especially where these affect women accountants;
- b) a multi-level approach which could provide a wider range of data relevant to a fuller assessment of the career path followed by female accounting graduates; and
- c) the inclusion of spouses or partners of these women should provide rich data pertaining to career influences outside the direct job role and organizational context.

This research represents the first stage of a larger project, a major survey of 3000 members, aimed at exploring gender-based difference in career goals, and structural barriers to female professional and career progression. Information will be gathered about the careers and aspirations of both female and male accountants. It is a landmark study, the findings of which will be of great importance to MIA and the profession at large. The suggested research represent activities that should be pursued concurrently and have the potential to inform and enrich one another. Additionally, these activities offer opportunities for co-operation and collaboration among employers, researchers and policymakers. A partnership approach to achieving a fuller understanding of the issues presented in this study, and to effect change, represents the best method for making strides to dismantle the glass ceiling. For the long-run success of women accountant and the profession, employers must give further consideration to “women issues” in order to retain these valuable and productive employees.

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Table 1. Independent variables measurement

Independent variable	Items	Method of calculation
Workplace benefits	<ul style="list-style-type: none"> • Medical benefit • Retirement benefits – pension • Sick leave • Short term disability insurance • Ability to work from home • Housing assistance • On-site day care centre 	Seven items, 5-point “low/very high” scale of level of importance
Performance evaluation and remuneration package	<ul style="list-style-type: none"> • Overtime pay • Policies for continual progression to partnership • Annual performance appraisal • Salary adjustment tied to performance evaluation • Performance bonus policy 	Five items, 5-point “low/very high” scale of level of importance
Job demand	<ul style="list-style-type: none"> • Workload too heavy • Lack of appreciation from superiors • Work specification not clear • Lack of management support • Poor communication among colleagues • New tasks assigned often • Performance not transparent • Performance evaluation too rigid 	Eight items, 5-point “low/very high” scale of level of effect on job performance
Family commitment	<ul style="list-style-type: none"> • Frequency of travelling outstation • Lack of support from spouse and family • Balancing family commitment with job demands • Possibility of relocation to another city 	Four items, 5-point “low/very high” scale of level of effect on job performance

Table 2. Reliability Test using Cronbach Alpha

Item	Description of items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
		Exclusionary environment	Family commitment	Workplace benefits	Job flexibility	Corporate policies	Job stress	Job demand
<i>Eigenvalue</i>		3.655	2.482	2.525	2.490	1.938	1.257	1.402
<i>Percentage of variance explained</i>		28.0	10.2	7.2	6.8	5.8	5.2	4.6
<i>Cumulative percentage</i>		28.0	38.2	45.4	52.2	58.0	63.2	67.8
<i>Cronbach alpha</i>		.8712	.7929	.8024	.7951	.6914	.4087	.5728

Table 3. Correlations Analysis between demographic variables

Variable	1	2	3	4	5	6
1 Present designation	1.000					
2 Industry currently attached	-.060	1.000				
3 Marital status	-.087	.056	1.000			
4 No. of years in current position	.093	.003	.239**	1.000		
5 No. of years working	-.146**	.075	.306**	.182**	1.000	
6 No. of times you changed jobs	-.012	-.065	.216**	-.123*	.138**	1.000

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2 tailed)

Table 4. Regression results for independent variable against dependent variables

Dependent variable	Independent variables	Std Beta	T-Score	Sig T	VIF
Career progression	Exclusionary environment	.034	.396	.692	1.553
	Family commitment	.060	.732	.465	1.444
	Workplace benefits	.097	1.140	.256	1.527
	Job flexibility	.074	.936	.351	1.337
	Corporate policies	-.095	-1.286	.200	1.164
	Job stress	-.294	-3.951	.000**	1.171
	Job demand	.044	.574	.567	1.236

Model Fit Adj R² = .061 ; F value = 2.853; Sig F = .007

* Significant at .05 level; ** significant at .01 level

Table 5. Regression results for independent variable against dependent variables

Dependent variable	Independent variables	Std Beta	T-Score	Sig T
Career Progression	Marital status	.377	7.856	.000**
	Number of times changing jobs	-.060	-1.259	.209

Model Fit Adj R² = .132 ; F value = 30.958; Sig F = .000

* Significant at .05 level; ** significant at .01 level

Table 6. Reasons for leaving and ways to retain women accountant

	Reasons for leaving	Ways to retain women accountant
1. Job Demand	<ul style="list-style-type: none"> • too demanding; too heavy; work pressure • long, inflexible working hours • transfer; relocation; extensive traveling • no job specifications; no job satisfaction; not motivated 	<ul style="list-style-type: none"> • workload not too heavy • flexible, shorter working hours; part time job • transfer; relocation; outstation; traveling • clear job specification; job satisfaction; job security; less stressful • clear line of communication
2. Work-Family Policy	<ul style="list-style-type: none"> • family commitment; lack of quality time spent with family; married • no personal life • policies on leave; benefits 	<ul style="list-style-type: none"> • work from home • child care centre • work-family balance policy; family benefits
3. Gender Discrimination	<ul style="list-style-type: none"> • unfair treatment • performance evaluation 	<ul style="list-style-type: none"> • equal treatment • fair performance evaluation
4. Role of Supervisors/ Management	<ul style="list-style-type: none"> • not happy with management, superiors, corporate politics; lack of management support; no appreciation from management 	<ul style="list-style-type: none"> • recognition, appreciation, understanding by superiors • management support
5. Career Prospects	<ul style="list-style-type: none"> • better job prospect; higher salary elsewhere; poor salary • no promotion; no career progression • no training provided 	<ul style="list-style-type: none"> • salary increment; bonus; attractive remuneration package • career prospect; opportunities for career advancement; partnership • promotion; empowerment • motivational factors; incentives; partnership • training and development programme
6. Accommodating Workplace/ Work Environment	<ul style="list-style-type: none"> • location of workplace and home • facilities not conducive • problem with subordinate 	<ul style="list-style-type: none"> • conducive; workplace near to home; friendly staff; • good corporate governance; • professional management supporting colleagues
7. Women Commitment		<ul style="list-style-type: none"> • promote social interaction • give them respect • health reasons • positive thinking; aggressive; committed; accept changes, challenges; show interest • support from spouse and family

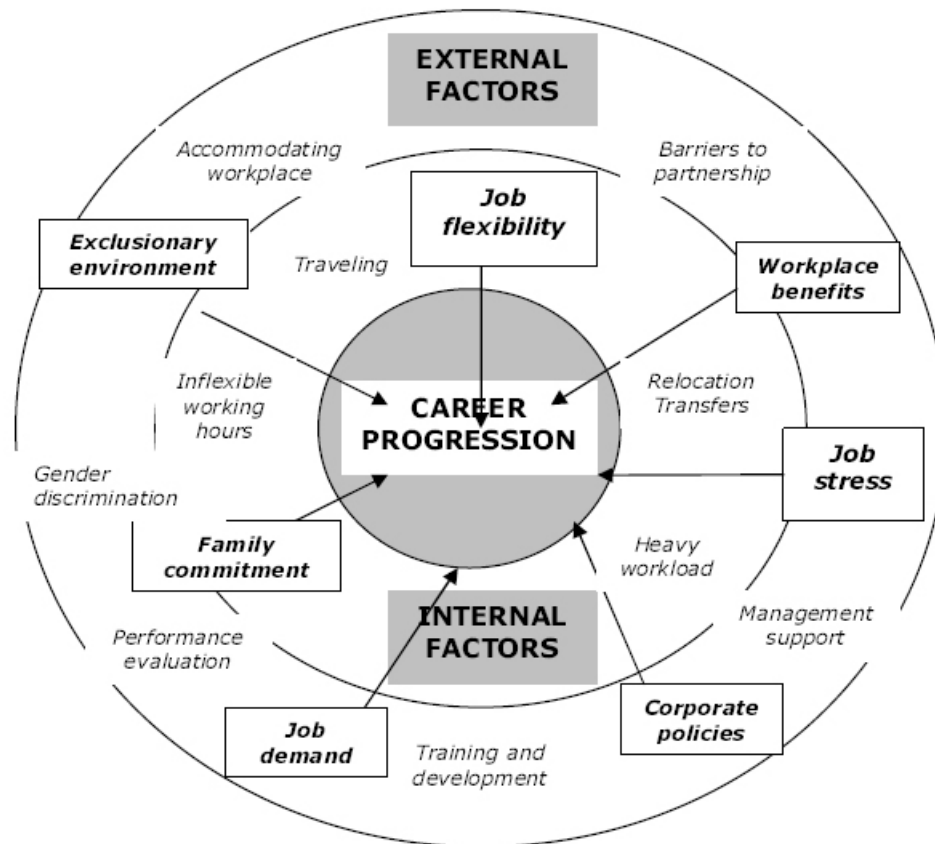


Figure 2.1 Conceptual Model for Impediments to Career Progression

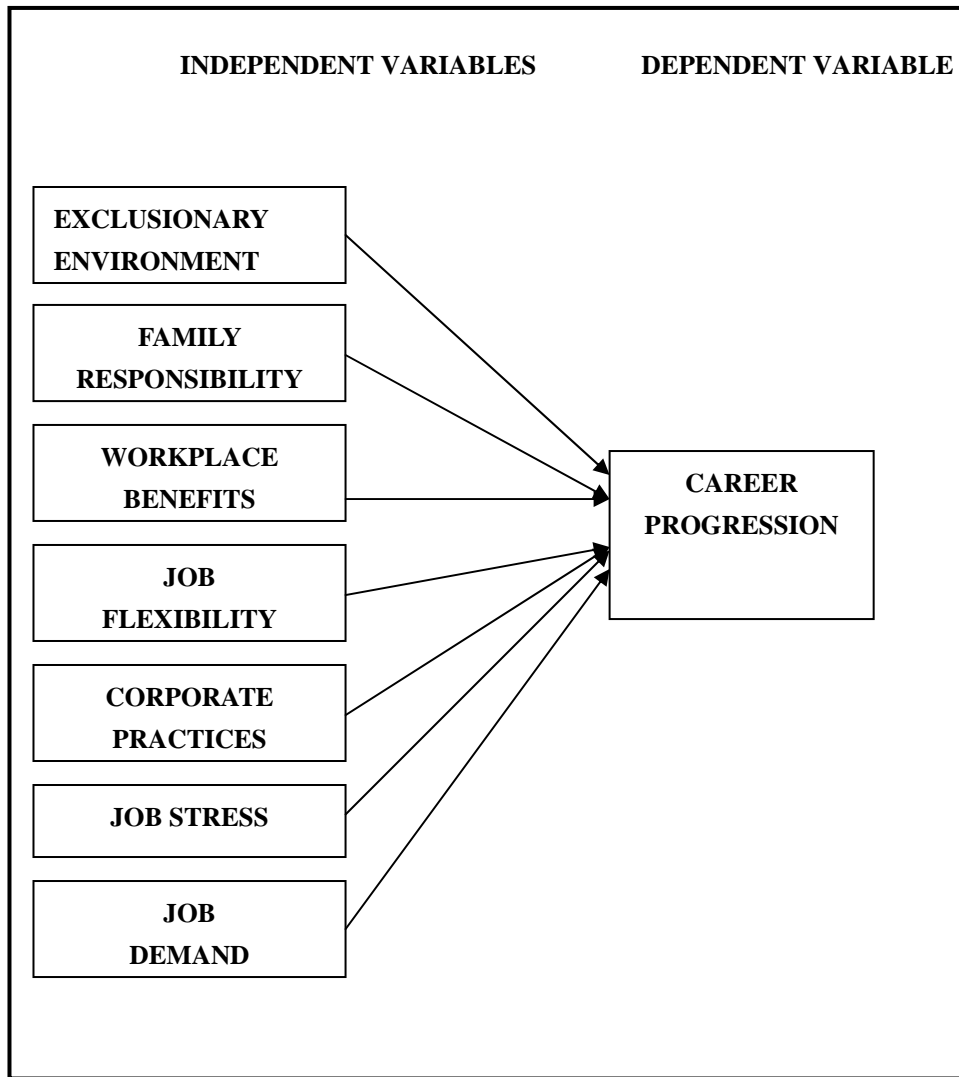


Figure 2.2 Proposed Empirical Schema of Impediments to Career Progression



On Reproduction of Fuzziness in C-E Poetry Translation

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Abstract

John Turner, an outstanding Chinese culture researcher, once commented that Chinese culture is the most artistic and longest-established culture that ever existed. Poetry is the succinct part in Chinese and culture-loaded. Fuzziness is one of basic features of poetry, especially in Chinese classical poetry. Fuzzy language is widely used in Chinese classical poetry, and its translation has become a difficult task because of differences between Chinese and English. The author of this paper begins with the theory of fuzziness and explores the reproduction of fuzzy language.

Keywords: Artistic conception, Chinese classical poetry, Fuzziness

1. Fuzziness in poetry

V.G. Belinsky (1811-1848) once said, "emotions are one of vital dynamic factors in the nature of poetry. No emotions, no poets, and no poems". The nature of poetry is to issue the authors' emotions. Rich emotions and complexity decide fuzziness in poetry.

Fuzziness refers to the indefiniteness and impreciseness of language. It is a communicative device and it is the feature of literary works. Without fuzziness, language will lose its nature as a social phenomenon. In *Webster's Ninth New Collegiate Dictionary* (P. 500), fuzziness is defined as "Lacking in clarity of definition." Fuzziness has at least three features: indeterminacy, relativity and shift from accuracy to fuzziness. In 1902, an American philosopher, mathematician and writer, gave a proper definition. "When many possibilities may occur and the speaker can't decide whether he should remove this possibility out of the definition or not even though he thinks carefully about these possibilities, we think this definition fuzzy." (Quoted in *fuzzy language* by Wu Tieping: 136)

In 1984, Liu Fu published his paper titled *On the Fuzziness and Determinacy of Character/ Personality*. In his paper, he expressed that a radical distinction between literature and science lies in the fact that we can use numbers to describe science while in literature we can only use aesthetic language such as images, feelings, plot etc. That is why literature is fuzzy. Fuzziness is the basic nature of literature. It makes poems and artistic conception meaningful. In fuzziness theory, fuzziness is considered the basic feature and common phenomenon in the world. Distinctness is relative. Fuzziness in poetry means meaning of the poetry is indefinite. Poetry is used to show our feelings. But besides distinct love and hatred, there is something between the two. In poetry, language is employed to show poets' feelings. Compared accurate language with fuzzy language, the latter is more charming.

Fuzziness is nearly everywhere in the ancient Chinese poetry, such as "qianli jiangling yiri huan", "putao meijiu yeguang bei", "ren bi huanghua shou", "guopo shanhe zai, chengchun caomu shen". In these lines, there is fuzzy language. "qianli", "yiri" are accurate, while here is fuzzy. The first line means the boat travels fast and the poet is very delighted. And the other three are also fuzzy. What kind of good wine is it? What kind of lustrous wine glass? To what degree the country is damaged? How long the grass is? The fuzzy language leaves the readers space to imagine. The line, "ren bi huanghua shou", gives us more space to imagine. To what degree the grass is slim? Slimmer than chrysanthemum. Then to what degree the chrysanthemum is slim? From these examples, we can see that fuzzy language in poetry is more appropriate. Immanuel Kant (1724-1804) said, "fuzzy definition can display more accurate language, ... beauty is something that can not be expressed."

Fuzziness is one of basic features of poetry, esp. in ancient Chinese poetry. Fuzziness makes the poems more open, and adds depth and width, and leaves more space for readers to imagine. Fuzziness is indeterminate and relative. Fuzziness can be identified as semantic fuzziness, image fuzziness, syntactic fuzziness, pragmatic fuzziness, and thematic fuzziness.

Fuzziness leaves literary gaps to readers and gives readers more space to imagine. Literary gaps are caused by semantic, image, pragmatic, syntactic and thematic indeterminacy. This indeterminacy forms an appealing structure to encourage readers to think and imagine. The extremely excellent production of artistic conception is fuzzy beauty. Fuzziness contributes to artistic conception.

2. Poetry translation

The ancient Chinese poetry values implicateness, beautiful, vigor of style, atmosphere, spirit and etc. Fuzziness is obvious in poetry. As readers, we should try our best to understand the fuzziness in poetry; as translators, we must first figure out the meaning of the poetry, and then try to convey the fuzziness and artistic conception.

As to the criteria of poetry translation, many scholars gave their ideas, such as Alexander F. Tytler's (1747----1814) "three principles" in 1790, Eugene A. Nida's, a famous American linguist, dynamic equivalence and Functional Equivalence in his later years and so on. In China, Yan Fu advocated faithfulness, expressiveness and elegance, while Qu Qiubai, Mao Dun thought translators should keep the style of the original and present content and form completely and correctly. Lin Yutang considered "faithfulness, expressiveness and beauty" as the criteria. Xu Yuanzhong thought that poetry translation should be as beautiful as the original in sense, in sound and, if possible, in form. There are many criteria for poetry translation. No matter what criteria it is, artistic conception and faithfulness or equivalence are admitted by all of them. However, absolute faithfulness or equivalence can never be achieved. It is just an ideal. What translators can do is try to make the translation as close as possible to the original, and make the translation achieve the same aesthetic effect on target readers as the original does on the source readers.

3. Interpreting fuzzy language

The American poet, Robert Frost said, "Poetry is that which is lost in translation."

Since fuzziness is one of basic features of poetry, different readers with different experience and other factors will have different understanding. Imagination can hardly be controlled. And Chinese and English belong to different language family. All these factors make ancient Chinese poetry difficult to be translated into English. Even so, many people worked hard and presented us many excellent translations.

Poetry employs definite words to express rich meaning. Fuzzy language is usually employed in Chinese poetry. But fuzziness is seldom used in English. English needs subjects, verbs, articles, etc. So when Chinese poetry is translated into English, translators try to find out the most proper way to interpret the original, to convey the meaning and to reproduce artistic conception. There are many ways to convey fuzziness, such as interpretation and finding out corresponding fuzzy language in target language.

No matter how hard translators tried, loss of fuzziness is unavoidable. As translators, we can only try to make the readers of original and translation have the same or similar aesthetic experience.

Semantic fuzziness is often used in literature, and together with ellipsis dots. In poetry, it is seldom used, so semantic fuzziness will not be discussed in this paper.

(1) To syntactic fuzziness, we should make the sentence complete but not tedious.

In some poems, the poets omitted the position in order to make the poems brief. In this way, syntactic fuzziness appears. It will not cause misunderstanding of the original readers. But if it is translated word for word into English, the translation will be inappropriate in English speaking countries. So, in order to avoid misunderstanding, we should make the sentence complete. Let's look some examples.

A. Kuteng laoshu hunya From Ma Zhiyuan's *Tianjingsha.qiusi*

English version:

Withered vines **hanging on** old branches,

Returning crow croaking **at** dusk. .

By Ding Yinzu and Burton Raffel

B. Damo guyan zhi, canghu luori yuan. From Wang Wei's *shi zhi saishang*

English version:

Straight is the lonely line of smoke **above** the desert vast,

And round, the sun that sets **upon** the long river.

By Zhang Tingchen and Wei Bosi

C. Zhongting dibai shu qi ya, lenglu wusheng shi guihua.

From Wang Jian's *Missing Mr. Du on seeing the moon*

English version:

In the moonlight courtyard crows are nesting **in** the trees;

Osmanthus flowers soundlessly are dampened by the dew.

By Zhang Tingchen and Wei Bosi

In the above three examples, the relation between images are not indicated in the original. But in English translations,

the preposition are given. If we omitted the prepositions as the original, the lines will be simply images presentation, which is not appropriate in English.

In brief, prepositions should be given in English translation to make the translation acceptable according to the language habits and convey the artistic conception well.

(2) To image and thematic fuzziness, we should keep it fuzzy on the basis of full understanding

In Chinese, there are many fuzzy languages, such as “three”, “six”, “nine”, “twelve”, etc. These figures need not be translated as accurate numbers. We can employ corresponding fuzzy language in the target language. Because of the differences between English and Chinese, there are seldom plural and singular form in Chinese. When translating, we must pay attention to the understanding and translation of these images and translate them according to our understanding. Take Liu Zongyuan’s *jaingxue* as an example. In the poem, *jiangxue*, there are lines “qianshan niao fei jue, wanjing ren zong mie.” Here, “qian”, “wan” do not mean there are one thousand birds and ten thousand roads, no more, no less. They mean many, lots of. When translating, we can use “hundreds of” and “thousands of” in translation.

There are more examples.

A. Shijian xingle yi ruci, gulai **wanshi** dongliushui. From Libai’s *mengyou tianmu yin liubie*

Throughout all time **all things** are as the waters,

Flowing to the sea.

So too is earthly pleasure.

By Zhang Tingchen and Wei Bosi

B. Zhifou? Zhifou? **Yingshi lvfeihongshou**. From Li Qingzhao’s *Rumengling*

I cry, “Can’t you see? Can’t you see?”

The green leaves are flesh but the red flowers are fading.

By Dai Naidie and Yang Xianyi

From these two examples, we know that when we deal with fuzzy language, we must first understand the meaning of the poems; after we know what the poet wants to say and what emotions he/she wants to express, we can decide which word will best express the poet’s emotions and convey the artistic conception. When translating *Rumengling*, Dai Naidie and Yang Xianyi translated “lv” into “green leaves”, and “hong” into “red flowers” according to their understanding.

In the opinion of the author of this paper, the translation are excellent.

Translation does not mean only passive conveyance. The more important is that it means active creation. If you want to translate poetry, you must first be a poet.

4. Conclusion

Inter-culture communication is possible because people admit that there exist shared cultural psychology and thing mode between nations. When something is conveyed to another culture, something surely will be lost. Chinese is a fuzzy language, while English tends to be more accurate. So loss is unavoidable in dealing with the ancient Chinese poetry characterized as fuzziness. And so is difficulty. No matter what method we adopt, we should try to keep the original meaning and convey the artistic conception faithfully.

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On Industry Design and the “People Foremost” Design Concept

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Abstract

Some western countries have put forward to the "people foremost" design concept at the end of the 1960s. This is a significant leap in thinking in the history of the design. However, complexity and uncertainty of the "human" factor of the "people foremost" design concept determine the relativity and limitation of its ideological foundation for the design. Meanwhile the "people foremost" design concept exist relative limitations. A "human, machine and environment" comprehensive systematic design should be established for product design. This is also the social responsibility and historical mission of designers.

Keywords: Industry design, People foremost, Systematism

1. The Background of the Concept of “People Foremost” Proposed

The 20th century is a rapid development times for the industrial design, and also the important times which each industrial design thought forms. In the 1950s, western countries appeared a large number of the massive cement construction and the high-level glass construction, and by this achievement “modernity” symbolic symbol. Many high-rise construction internal spaces narrow and small crowded, sometimes reaches tens of thousands of people to work in a tall building, does not suit human's life. In the mid-1960s, the West appeared the argument in the construction and the urban planning aspect, has formed in US to the modern architecture, psychological and the symbolic aspect critique, the evolution for after modern theory, thought gradually the pursue actual work can the rationality takes the mass production only goal the design deficient emotion color. In 1965, a report named "function principle today" was made in the Deutscher Werkbund, criticized the procedure to take the function principle as the ideology and the guiding ideology, and pointed out, besides the determination use; one form also had the symbolic mark function. In 1968, also some people proposed that the function principle cannot be regarded as the supreme principle of design. From this, in the last stages of 1960s, followed the semiotics production, western countries proposed "people foremost" design concept, which is the most revolutionary progress in the industrial design thought field. In view of the function principle design concept flaw, proposed the industrial design does not have take the machine function as a starting point, but must take human's operation behavior as the starting point, take the human to the product the understanding as the starting point. This design concept in view of the function principle technical rationality, emphasized cultural the function, emphasized the user the thinking mode, the behavior custom to the product design vital role, jumped out the idea of " take the machine as base " and “take the technology as base”, not only to industrial design, moreover to the engineering design, the computer semiotics and so on has all had the very tremendous influence. After 1990s, the “people foremost” design concept has formed the quite comprehensive rationale, as a result of the psychology motion theory and the cognitive psychology thorough development.

2. The Relativity Limitation of "People Foremost"

The "People foremost" thought suggesting that, on one hand, feasible man-machine interaction is in harmony especially, make industrial design product usage of especially convenient people. Another aspect , this thought suggesting that it has satisfied the unlike people’s need , has broadened the angle designing that thereby , has enriched the content and form of the product, feasible industrial products no longer is "thousand people one aspect", but let a consumer have more choice. Therefore, the design thought is to have certain advanced.

Though the design thought has promoted for the modern industrial development, have progress, at the same time also have a little limitation. Exactly be that industrial civilization advances by leaps and bounds in "people foremost" concept controlling time, human society is confronted with austere energy resources, crisis and ecological crisis more, even human being self's the warning existing to accept nature having a heart of stone than the all times going over.

Therefore, carrying out investigation and discussion and the self-examination on "people foremost" design is very necessary.

2.1 In the Designing Thought of "People Foremost", the Complexity of "Person" Factor Has Decided the Designing That Ideological Foundation Has the Relativity and the Finiteness

First, for different race there are very big differences between physiology and psychological factor. Do not have two pieces of completely identical leaf in the world also do not have same height and weight. The same chair is suitable to the thin people, but might not fit plump people. People who are different in social status, life arrangement of ideas are also different to identical product on mentality need. According to Abraham H. Maslow who is humanism psychologist in USA, his *Exceed nature motivation theory* brought forward that five kind different horizontal demand level of person: physiology need, safe need, belonging need, respecting need, self-realization need, the people not having been satisfied with physiology need and safe need are surely busy with life, will not require the product to embody extra value, however, those people already get satisfied will show higher requirements, which is a user and the manipulator want harmoniously coexisting with imitation thing- product, feeling that the body and mind is delighted and be able to satisfy self appreciation of the beauty and art need.

Second, the diversity of cultural decides the people in different cultural backgrounds are different to the appreciation of the design beauty request. The diversity in Nature makes our world to be wonderful. Culture is also so-called. Human being is primitive, the forefather is peculiar. Different culture is necessity. Every nation culture is to be created by and be developed on the material world basis, ecological environment in the world differs from one another, the different ecological environment forms different cultural system. And because of the difference between natural environment and history human environment, the economic activity has also differed from one another, even material conditions has reached identical degree, the meeting long range keeps the difference on culture as before. The culture difference surely leads to the diversity of people's world outlook, the outlook on values. Be imaginable, Arab and American are absolutely not likely identical to some specially appointed object or cognition realizing.

Third is that the region difference is also to varying degree deciding people with design demand difference. Ancient times bending in productivity, the life environment is a very important factor, which decisions people's understanding of the designing. The Europe building usually uses stone, but China building is much xylon. There is plentiful of mountain, stones are rich, the field is plain but much in living in a compact community of Chinese people, building drawing on local resources having brought up China, Europe being quite different in extremely low ancient times of productivity level uses material. Certainly, now the environment is still the standard that people uses the product design. To the automobile design, we require that the camion energy is relaxed to the automobile facing complicated landform, demand comfort, energy conservation, environmental protection but then to civil saloon.

Finally, "person" itself is a history concept, we also ought to use the sight developing change to treat a series of problem such as people's physiology dimension, various need, appreciation of the beauty, value orientation after a series of problems "People foremost" need is also unable completely identical under different historical conditions.

To sum up, "person" has been that one is complicated, the very strong concept of uncertainty, this has decided "people foremost" design ideological foundation to have the relativity and the finiteness. We ought to face with the attitude discriminating, developing, wield "people foremost" thought, avoid the metaphysics ossification appears to design thought.

2.2 The Thought of "People Foremost" Has the Relative Timeliness and Uncertainty on Resolving Product Design

From the classification of the products, not all products can guide the leading thought that the person designs with "people foremost" action. Guided by "people foremost" design thought, "person" becomes the service of industry product design. Every designs activity all wants to spread out with people. But in fact, within the design range relating that, some design that the product service must not be person. Human society has experienced taking the steam engine invention as the first time Industrial Revolution representing, has forged ahead stage that the machine produces greatly. After developing for more than two hundred years, nearly all products in human society is important till the shuttle, the space craft, till the screw nut, the electronic component all can be molten by batches. Principle inspects absolute and dialectical relation of relativity therefore, using Marxism truth, "people foremost" design thought can be impossible for the design applying to all product categories. The factor of "people" has already been the less important factory for the product design consideration, replacing by the function factor of product. Thereby, if still should be people foremost, must have damaged the functionality of the product, have been to lose more than gain. Various pet toys, ornaments etc. for instance, being that the pet produces in the late years since the pet is hot but appear, that the person serves a marriage partner is no longer person already, therefore not likely "people foremost". In short, "people foremost" have set a limit for designing partner, thereby, have reduced the range of designing partner, restricted the development of the designing thought.

As for applicative aspect, there exist several contradictions which are very difficult to make concessions in "people

foremost" design thought. Be rational science and the humanistic spirit contradiction first. Exactly as, foregoing words is stated "people foremost" thought origin is west Renaissance period "humanism" whose nature is to embody showing solicitude to person. But design itself and reason such as mechanics of materials, theory of mechanics there are existing rapid and intense connection in discipline. The scientific law of reason discipline self is an independent of will of man's. Therefore, emphasizing reason analysis excessively in design, will lead to idea deficiency designing the work humanity, lose "soul" thereby, make to design in outside; emphasizing humanistic spirit excessively, the meeting makes to design the support being short of necessary reason science. In design, although the two's purpose is identical, existence is burning contradicting. Second is universality and individuality contradiction to design partner. Refer to common character that object has something in common. But, one object has the certain individual, peculiarity as everybody existence. For instance, the automobile designs, Europeans is unlike from inside dimension to outside model request evidently to automobile parameter Asians. That in other words, the automobile as the means of transportation common character is invariant, changes but specifically for different area being unlike a race but being going to be used for out different design. Therefore, when guiding design "people foremost" in the object universality and individuality balancing point should be forever endless being seeking. Third is to count the contradiction with case. "Person" in "people foremost" has universality, the request designs that therefore when guiding design being unable to have adaptability common. Being that the designer studies designs universality of the design partner, thinking all is to take great majority as reference; the data carries out design and according to the group counting out. Person is the independent factor, have different carriage characteristic each, and person is to be in "development", everyone's behavior habit is also be unable completely identical, that any designs common adaptability as a result all is relative. Person is considered "people foremost" as the entirety, the existence having ignored consumer case, needs thereby in having designed that the consumption having ignored some part smart group. Point Four is rational and extraordinary gauge contradiction. Design that physiology, mentality needing to satisfy person demand, messenger person high-effect but work or lie fallow comfortably. But demand of different people to similar products differs from one another. For instance, judge's seat must have coming to demonstrate his awe-inspiring the high back, but, the dining hall seat needs only comfortable usage meal person having a meal. Therefore, "People foremost" take that artificial to responding to understands and explains as guiding ideology of plan, directionality, be not accuracy, certainty. "People foremost" can only be able to determine the nature but unable quantitative explanation.

3. The Application Principle of "People Foremost" Designing Thought

3.1 Governing and Being Governed Principle

Factor that product design asks to think many, any designs the result being that synthesis considers person, society, economy, technology, material etc. are many factor successfully. "People foremost" design thought is only the theoretical direction that process gives macroscopic view to product design. Therefore, entire design process is hit by, now that for the designer the dialectical relation is responded to be grasped the "people foremost" direction with product design and be guided, being able to not deviate from, also a unable field one-sided exaggeration "people" factor, needs to have overall concept, draw a clear distinction between various influencing factor primary and secondary relation, finish harmonizing various relation.

3.2 Verify and Be Verified Principle

The "people foremost" is also the prerequisite checking that the person designs success or not except being engaged in the guidance principle designing that as the designer. We certainly cannot ignore the important factors like production and environment while using "people foremost" to carry out macroscopic view valuation on design plans.

3.3 The Uncertain Guidelines of Getting-involved-in

Design a Taoist temple as one kind, guide the macroscopic view thought designing that "people foremost" be not "all-pervasive" even if getting involved in all links also not being bound to seep needing to show to design. "You are not a dog, how knows happiness of dog", therefore "people foremost" design thought just has no proper working post where one can give full play to one's skills or professional knowledge when we design an appliance in giving a pet. So the designer responds to concrete analysis of concrete conditions, cannot run after him blindly "people foremost".

3.4 Elasticity and Develop Principle

"Person" itself is a history concept, so we also ought to use the sight developing change to treat people's physiology a series of problem such as dimension, need, appreciation of the beauty, value orientation. Progress, the technology uninterrupted growth and the circadian rhythm ceaselessness are accelerated with society's development. All above various factors is in also all ceaseless change. This requires that in the design the designer need to dare to be innovative when facing the brand-new problem, initiative being in progress studies.

4. Inheriting "People Foremost" Critically and Building the Sustainable Development Design Thought

The development of designing thought can represent the productivity advanced of one area. This is the formation

expecting the peculiar ideology because of the height that social productivity level develops has decided this period of time, formation also being able to be that some guide thought among certain design link.

In the different period and environment, we require that the "human" factors will be in one's own "post" gives different analysis. We need to show solicitude for the particular "people", want to have the "people" who shows solicitude for a group too; need to show solicitude for the modern "people", need to show solicitude for the future "people" more. The attention of design to person, perception answering culture and person first way these relatively stable aspect carries out the particular difference studying, being really then, this needs design discipline and other humanities subjects combine mutually in order to make large amount of basic research, guide concrete design.

The history carriage wheel has already driven today, to enter the 21 century, human society has already entered information civilization from industrial civilization. When those main current international community, the nation in the past once creativeness bringing forward the "people foremost" and proposing energetically the field already exceeds and critically inherit it now, we ought to laud as sacrosanct again unnecessarily neither with the person.

Design is one kind of culture. Every period's design culture will be surely continued like other culture. Good designing that the spirit and material are upper being going to certainly bring to descendants, inferior design is able to bring the loss, going ahead spiritually with matter to loss to the spirit and material for the descendants, such as the environment destroying, the resource dissipation and so on. A basic thought in industrial design is to be in harmony and unite, it not only explore product self's unification (function and the appreciation of the beauty unification), but also explore the product and fitting of person, product and environment more. Nature has its own rules, and does not allow our human being to develop without any abstinence, exploitation makes use of wantonly. Therefore, "people foremost" design thought must keep a foothold in this major premise —Sustainable development, be to build the sustainable development design thought. Energy conservation designs, environmental protection designs, the long effect designs etc. are the outcome waiting to be abide by a product to sustainable to design a train of thought.

Design that sustainable design thought encourages to harmonize human being and the nature, the sources of energy waits for the protection environment, economy material to design principle, both realize the system designing that behavior is brought into "man-machine-environment", social value and give consideration to natural value guided by organism's habits philosophy, promote the human being and the nature common prosperity. Be in harmony with other effect mutually to the factor designing that make design tend to rationalization especially thereby while paying close attention to person one's own post.

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Road Traffic Injury Epidemic in Jamaica: Implications for Governance and Public Policy

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Abstract

Road traffic accidents, the leading cause of death in adolescents and young adults are being recognized as a growing public health problem in Jamaica. The study examines road traffic accident injuries and fatalities in Jamaica among road users, as well as by categories of fatalities, gender, motor-vehicle, time-of-day and location. In the period 2001 to 2005, the highest number of victims was between 20 – 29 years of age. Of the 1,856 road traffic accident victims from 2001 to 2005, the highest number occurred in 2002 (408), while the least in 2005 (326). There was a greater incidence of road traffic accidents during daytime between 0600h and 1800h (53.2%) and mainly on weekends (52.6%). Pedestrians were the most likely victims of road traffic accidents, thus accounted for 30.2% (667), followed by private motor car drivers 16.9% (374) and private motor car passengers 16.6% (368). The study concludes that road traffic injuries impacts on long and short-term wealth, affecting families and public health.

Keywords: Accidents, Motor vehicle, Fatalities, Safety, Risk, Gender

1. Introduction

Road traffic accidents are an emerging global epidemic. Road traffic injuries are a major cause of death and disability globally, with a disproportionate number of occurrences in developing countries (Murray & Lopez, 1996). In 2000, road traffic injuries were the ninth leading cause of disability-adjusted-life years lost and are projected to become third by 2020 (Peden *et al.*, 2001). Each year, over 20 million people are injured or crippled, and 1.17 million are killed, due to road traffic crashes (Peden *et al.*, 2001).

Developing countries account for over 85% of the deaths, and close to 90% of the disability caused by road traffic crashes globally (Krug, 1999). In developing countries, rapidly increasing motorization is outpacing the development of transportation infrastructure. This fact is the primary reason for the increasing numbers and rates of motor vehicle injuries in developing countries (Jacob *et al.*, 2000). Causes of motor vehicle crashes are multifactorial and involve the interaction of a number of pre-crash factors that include people, vehicles and the road environment (Robertson, 1992). Human error is estimated to account for between 64 and 95% of all causes of traffic crashes in developing countries (Transport and Research Laboratories, 1990). Other factors that contribute to the high rate of crashes in less developed countries include a high prevalence of old vehicles that often carry many more people than they are often designed to carry, lack of safety belt and helmet use, poor road design and maintenance and the traffic mix on roads are (Odero *et al.*, 1997). This problem draws significant attention in Jamaica where road accidents are high and still increasing.

Jamaica with a land area of 11, 424 km² is the largest English-speaking island in the Caribbean. The country is divided into 14 parishes. Its largest city is Kingston, the country's capital on the Southeast Coast. Road traffic accidents are a major public health problem in Jamaica despite the introduction of breathalyzer, seat belt and helmet legislation (Ministry of Health, 2002). A study conducted in 1996 demonstrated that 21.1% of private motor vehicle drivers and 13.6% of front seat passengers voluntarily wore seat belts in Kingston, where there was no law requiring this at the time (Crandon *et al.*, 1996). In 1999, Jamaica introduced seat belt legislation mandating fines for non-compliant drivers and passengers. An observational cross-sectional study conducted in Kingston in 2004 showed that seat belts were used by 81.2% of private motor vehicle drivers and 74.0% of front seat passengers (Crandon *et al.*, 2006). However, the occurrence and cost of motor vehicle accidents continue to be a cause for great concern. It is

established that these accidents constitute a major source of preventable mortality. Police accident statistics indicate that the consistently high level of road traffic injuries and fatalities are directly attributable to poor judgment on the part of road users (National Road Safety Council of Jamaica, 2004). In 1999, motor vehicle accidents represented the twelfth leading cause of deaths island-wide (National Road Safety Council of Jamaica, 2004).

In Jamaica with its rapid expansion of road construction, creation of new highways and increase in the number of vehicles, road traffic accidents are becoming an increasing serious public health problem. The magnitude of the problems would be greatly reduced if appropriate measures were taken concerning road user behaviour. The present study was undertaken to examine road traffic accidents and fatalities by categories of gender, age, road users, motor-vehicles, time-of-day, location and outcome of motor vehicle accidents. The socio-economic implications are also noted, and recommendations are made for risk reduction and safety as elements towards strategic and policy development.

2. Materials and Methods

The present study reports on road traffic accidents and fatalities in Jamaica, with implications for governance and public policy. The study is informed by quantitative and qualitative designs that permit primary and secondary analyses. For the purpose of the study, a road traffic accident was defined as an accident that took place on the road between two or more moving objects, one of which must be any kind of moving vehicle. An injury on the road without involvement of a vehicle (eg. a person slipping and falling on the road and sustaining injury) or injury involving a stationary vehicle (eg. a person getting injured while washing or loading a vehicle) were excluded from the study. The motor vehicle accidents statistics used in this study was taken from the Jamaica Constabulary Force (JCF), field research of 122 cases from emergency patients at four (4) hospitals, as well as information from seven (7) general insurance companies in Jamaica. These insurance companies wish to remain anonymous, hence labeled from A to G for the purpose of this study. The study is based on the collection of data about all motor vehicle accidents that occurred in Jamaica during the period January 1, 2000 to December 31, 2006. The annual statistical report contains information such as the number and nature of accidents, causes of road accidents, number of fatalities and casualties, accident date, time, location, age and gender of the victims. The Statistical Package for Social Scientists (SPSS) is used for data analysis. The analytical procedure is descriptive statistics involving cross tabulation, frequency and percentages.

3. Results

The data obtained from the Jamaica Constabulary Force (JCF) represent cases by categories of road traffic accident fatalities by gender, age, road users, motor-vehicles, time-of-day, location and outcome of accidents. Other data include insurance claims honoured for motor vehicle accidents for six (6) years (2001-2006) by seven (7) general insurance companies in Jamaica.

Males are far more likely to be killed in road traffic accidents than females (Table 1). In the two years 2005 and 2006, of the total 592 victims, 466 (78.7%) were males and 126 (21.3%) were females. In the period 2001 to 2005, the highest number of victims (20.7%) was between 20 – 29 years of age. Approximately 62.2% of the victims were under 40 years of age. There were 91 children (4.9%) below 10 years of age. The highest road fatalities in any of the years occurred in 2002 (408) and represent an increase of 2.5% from the previous year (Table 2). The following years (2003-2005) show a steady decline of approximately 1.6%.

During the period 2001-2006, pedestrians were prone to road traffic fatalities than any other users (Table 3). This represents 667 (30.2%) pedestrians, followed by private motor car drivers 374 (16.9%) and private motor car passengers 368 (16.6%). Two hundred and fifty nine (11.7%) pedal cyclists were killed followed by 206 (9.3%) motor cyclist. The least likely to be involved are commercial motor car passengers and drivers (3.0% and 1.9% respectively) and pillion passengers (1.9%). In addition, based on the feedback from the 122 respondents of this study, 46 percent blamed accidents on having to swerve from potholes and uneven road surface, in order to prevent damage to their motor-vehicles.

The period 2001-2006 highlights road traffic accidents as per time of day, and shows that 53.2% of road traffic accidents occurred during the day between 0600h and 1800h. There was a greater incidence of road traffic accidents (52.6%) during weekends, between 0600h on Friday and Monday 0600h, compared to mid-week days (Table 4). This was consistent throughout all the 14 parishes of Jamaica. The road traffic accidents were mainly concentrated in the parishes of St. Andrew (30,063) and St. Catherine (7,720) over the period 2000-2005 (Table 5). It is ascertained that this is as a result of frequent travels out of town for weekend vacation. The least prevalent experience is in the parishes of Hanover (734), St. Thomas (1,312) and Trelawny (1,341). Table 6 shows a steady increase of approximately 15-25 percent each year as total claim honoured for motor vehicle accidents over the period 2001-2006. This also includes theft of motor vehicles that are comprehensively insured. While there is no significant difference in the sum honoured by insurance companies A to G for the period 2001 and 2002, there is a marginal increase during

2003-2005, and an escalated sum of US\$27,614,023.34 in 2006. Companies F and G consistently reflect a higher dollar amount for motor vehicle mishaps.

4. Discussion

This study shows that the various variables (fatality, gender, age, road users, location and time of accidents) bear relationship with road traffic accidents in Jamaica. The finding that adolescents and young adults are at high risk of traffic injury and death is well documented in many reviews on the subject. In the present study the highest number of road traffic accident victims (20.7%) was found in the age group 20 – 29 years. This study also found that 40.7% of the victims were between 20 and 39 years of age. An earlier study by Ganveer and Tiwari (2005) in India reported that 75% of the road traffic accident victims were in the age group 18 – 37 years. Other studies have reported that those in the age group 15 – 39 years comprised between 46 – 75% (mean 58%) of all road traffic accident casualties (Sayer & Hitchcock 1984; Jayasuriya, 1991). The higher incidence of accidents in these age groups can be attributed to the risk-taking behaviours of youths. The findings demonstrate that the people of the most active and productive age group are involved in road traffic accidents. This has important economic impacts as these are people in their most economically productive years. In addition there is significant expenditure incurred in the treatment of these victims. It also has implications for the design and implementation of more targeted interventions. The present study also shows that below and above the age group 20 and 49 years, the proportion of road traffic accidents was low. The reason may be that children were taken care of by elders and there is less use of vehicles in the adolescent age group. Lower proportion of road traffic accidents in those aged 60 and above could be due to the generally less mobility of these persons.

The road traffic accident fatalities were 3.7 times higher in males than in females according to the study. In a previous report, there were 12,230 road traffic accidents for 2003, representing a slight decrease of 2% compared with 2002. For the period 1991 – 2003, 80.9% of road traffic accident fatalities were males, while 19.1% were females, giving a ratio of four to one. For the same period, 95% of the drivers that died as a result of road traffic accidents were males and 5% females. The overwhelming majority of the males were in the productive years and the age cohort 20-29 years was the most affected (National Road Safety Council of Jamaica, 2004). A study by Escoffrey and Shirley (2002) showed that of the trauma-related deaths at the University Hospital of the West Indies in Jamaica between 1983 and 1997, motor vehicle accidents accounted for 44.9%. The 21 – 30 age group was the most commonly affected and the overall male: female ratio was 4:1. Other studies have described casualties by sex showing consistent predominance of males over female, with males comprising between 67 and 99.5% (mean 80%). In a review of traffic accidents in developing countries by Otero et al. (1997) the male to female ratio was > 2 in all studies examined, but > 3 in 83% of the studies. This can be explained by the greater exposure of men to traffic or increased risk due to other factors.

Pedestrians constituted 30.2% of the road users involved in road traffic accidents followed by followed by private motor car drivers (16.9%) and private motor car passengers (16.6%). Otero et al. (1997) reported that pedestrian fatalities were highest in 75% of the studies accounting for between 41 and 75%, followed by passengers (38 – 51%) in 62% of the studies. Drivers were third in 55% of the studies, and never ranked first in any country. A report by Peden et al. (2004) showed that pedestrians are nine times more likely to be affected by road traffic accidents, while bicyclists are eight times more likely. Compared with a person in a car, a motorized two-wheeler is 20 times more likely to be killed for each kilometer traveled. In addition, persons in a car are 10 times more likely to be killed than a passenger in a bus or coach, and 20 times more likely than a passenger in a train (Peden *et al.*, 2004). While most motor vehicle drivers are men, a high proportion of males involved as pedestrians, passengers or cyclists, suggests the co-existence of other social and behavioural factors contributing to their vulnerability. Pedestrians are most vulnerable to injury and death. This may be due to a number of factors, including lack of pedestrian facilities in road design, poor knowledge and practice of road safety measures by the general population, discourteous behaviour of motorists, high speed driving, and low levels of vehicle ownership. The high proportions of passenger fatalities appear to be associated with extensive use of public transport, types and condition of such vehicles, and driving skill of their operator. While this study did not attempt to investigate specific potential factors that would explain the observed gender differences, the authors believe that such a study should be done in order to access and correct for levels of exposure by gender.

In this study, there was a greater incidence of reported road traffic accidents during the day between 0600h and 1800h, and on weekends. It is ascertained that the greater incidence of road traffic accidents on weekends could be due to frequent travels out of town for weekend vacation. Other studies have substantiate these findings and in a review of traffic injuries in developing countries by Otero et al. (1997), there was a greater incidence of traffic injury during weekends, between 0600h on Friday and Monday 0600h, compared to mid-week days, in 79% of the 19 studies that provided data. Of the total weekly figure, an average of 52% occurred during weekends (range 36 – 74%). Otero et al. (1997) also reported that between 60 and 80% of casualties were injured during the day and approximately one-third of traffic injuries occurred during the night with highest incidence between 1800h and 2400h. There is sufficient evidence in support of a high incidence of day-time casualties. This can be explained by greater traffic volume during

the day resulting in greater risk of accident involvement as people travel to work, children go to school, and commercial enterprises are open for business. The relative decline in traffic casualties at night may be explained by less night-time activity and travel.

The use of alcohol was not involved in our analyses as the data was unavailable. However, the role of alcohol in impairing driving ability is well documented. As the blood alcohol content increases, risk of crash involvement increases dramatically due to increase impairment. There are two studies conducted in Jamaica which examined morbidity, health and social problems from alcohol abuse. One of the studies identified that in blood samples of 31 motor vehicle fatalities, evidence of alcohol intake was found in 77.5% of the fatalities and 35% had alcohol levels above the legal acceptable limits (Francis *et al.*, 1991). The other done by three doctors revealed that alcohol was found in the bodies of 43% of drivers involved in traffic accidents (Jamaica Gleaner, 2000). According to Peden *et al.* (2004), in low and middle income countries, increased blood alcohol level was present in 33-69% of fatally injured drivers and in 8-29% of drivers involved in crashes (but not fatally injured). A study in Bangalore showed that 44% of drivers of two wheelers which crashed were under the influence of alcohol (Jagnoor, 2006). Alcohol use is involved in up to 70% of road crashes in the United States (Bliff *et al.*, 2004) but as low as < 2% in China (Wang and Jiang, 2003). These are indicative of local and regional differences in road accidents epidemiology. The introduction of blood alcohol content limits is associated with a decrease in alcohol-related crashes, and subsequent lowering of such limits leads to further reductions, though the magnitude of such effects varies widely. The most effective way to deter drunk driving is to raise drivers' perceived risk of getting caught (Sweedler, 1995) Sobriety checkpoints and random breath testing have been found to lower-related crashes by about 20% (Elder *et al.*, 2002).

A high incidence of road traffic accidents in Jamaica is also due to poor enforcement of traffic safety regulations due to inadequate resources, administrative problems, and corruption. Corruption extends to vehicle and driving licensing agency. Corrupt practices include: (a) issuing of licences to individuals in order to allow them to drive a much heavier type motor vehicle than the one they were examined for; (b) issuing of driver's licence to the literacy challenged, many of whom are not efficient at interpreting the road code; (c) issuing of licence to persons who have not done a driving test; (d) issuing of certificate of fitness without the proper scrutiny/examination of the motor vehicle; and (d) police taking money from motorists who disobey road safety regulations/rules, and refrain from charging them for an offence. The findings of a study (comprising 446 motorists) done by the Pan American Health Organization and the National Road Council of Jamaica reveal that 71% of the persons who obtained drivers licence without being examined, met in accidents, while for those who obtained drivers licences legally, 40% met in accidents (Davidson, 2006).

Frequent breaches of the Road Traffic [Amendment] Act and Regulations 2005 include: disobeying traffic lights and road signs; motor vehicles not having the prescribed number of reflectors, along with specificity of measurements (Jamaica Laws, 1964); reckless or dangerous driving; driving under the influence of drugs; accommodating more than one pillion riders on a motor cycle; inadequate provision of lights and/or horns; disobeying the rules governing the number of carriers as per specific motor-vehicles; and the improper use of the pedestrian crossing. Other risk factors that contribute to improper use of roads are improper display or the absence of appropriate road marking; the absence of street lights and lane reflectors on very dark roads; speeding; the use of cellular phones; music *inter alia*. Of the 122 cases, 12% who were involved in an accident were playing loud fast rhythmic music. The respondents note that the fast rhythm of the music stimulates their emotions or "pumps up their vibes." While the effort of the Government of Jamaica to discourage the playing of loud music on public transportation is considered reasonable, motorists believe that this would be a violation of their right when it comes to their private motor-vehicles. Loud music tends to create distraction from hearing the horns of other vehicles and the observing of other warnings.

Road traffic deaths and injuries impose a huge economic burden on developing economies, amounting to one to two percent of Gross National Product (GNP) in Latin America and the Caribbean, thus representing US\$18.9 billion annual crash cost. Overall cost in low and middle income countries falls within the range of US\$64.5 billion to US\$100 billion (Jacobs *et al.*, 2000), which are comparable to the total bilateral overseas aid contributed by the industrialized countries, thus amounted to US\$106.5 billion in 2005 (Commission for Global Road Safety, 2006). These estimates account only for the direct economic costs (mainly lost productivity) rather than the full social cost often recognized by industrialized countries. There is also the direct impact on health services, with road traffic victims accounting for almost half the hospital bed occupancy in surgical wards in some low and middle income countries. In 2002, 408 people died in motor vehicle accidents in Jamaica, a rate of 15.5/100,000 population. The cost of these motor vehicle accidents for that year was approximately J\$518 million (US\$7.6 million). In 2002, there were 12,484 visits to the Accident and Emergency Departments at Government Hospitals by clients seeking care due to motor vehicle accidents. The figure was 12,230 for 2003, representing a slight decrease of 2% (National Road Safety Council of Jamaica, 2004). During the first United Nations Global Road Safety Week in Jamaica (April 23-29, 2007), Dr. Elizabeth Ward reported that in 2005, the estimated cost of direct patient care resulting from road accidents was J\$234 million (US\$3.4 million). The indirect cost (loss of earnings, disability, follow-up treatment and psychological costs) was three to ten times the

direct cost. The number of victims of road traffic injuries treated at seven major hospitals across the island of Jamaica, contributes to the total direct and indirect cost of J\$205 billion (US\$3 billion) in 2005 (Messam, 2007).

Fatalities or injuries as a result of road accidents usually result in medical expenses, possible permanent disability, funeral expenses, legal fees, job insecurity, loss of income, psychosocial impact, the possibility of poverty, insurance cost, ambulance cost or taxi fare to transport the injured to hospital. In addition, the insurance premium of the survivor would increase. Information obtained from the seven (7) general insurance companies in Jamaica show that there has been a steady increase in the sum paid to honour claims during the period 2001-2006 for road accidents. This reflects a total of US\$93.5 million. The year 2006 shows the most sum being paid out for motor-vehicle accident, and the least paid was in 2001-2002. This does not mean that the sum paid is indicative of an increased number of claims being honoured. There is no evidence which shows the number of claims submitted to and honoured by the insurance companies in question. Although this period reflects the various levels of coverage, it is not indicative of the number of road traffic accidents. This is because while insurance coverage for 2001-2002 reflects a lower payment, these periods were among the highest crashes, and *visa versa*.

In conclusion, road traffic accidents continue to be one of the major causes of death in Jamaica. On the basis of these findings it is recommended that strict licensure procedure should be followed and minimum level of education regarding road safety required for applicants of road licence, especially the youths. Road traffic injuries besides being a major health hazard leading to high rate of morbidity, disability and death, have great socio-impact on the victim, his family and the nation as a whole. Therefore while the Government of Jamaica continues to embark upon educating its people on road traffic accident/fatality issues through mass media and other avenues, the absence of political will and commitment to road safety make these campaigns, policies, and plan of actions unsuccessful.

5. Recommendations

The following recommendations are proposals for further policy-legislative framework and strategic plan of actions.

- (1) Attention should be paid to the economic cost of road accidents and fatalities, and the extent to which it impinges on the resources allocated by the government to public hospitals, and how it prohibits other illnesses from getting full attention.
- (2) This study shows that the number of persons killed as a result of road traffic accidents reflects only those who succumbed to injuries shortly after the accident, and not those who succumbed in the long-term. Therefore, cause of death for such individuals would not be recorded as motor-vehicle accident. In an effort to ensure statistical accuracy, follow-up should be made on seriously injured individuals.
- (3) The Government of Jamaica should provide special lanes alongside major roads in urban areas for pedal and motor cyclists. It should be mandatory for both pedal and motor cyclists to wear helmets. Sanctions should be imposed on the pedal bicyclists who break the rules of one-way streets.
- (4) It should be made mandatory for motor-vehicle headlights to be turned on during the daytime while driving, as research has shown that this reduces risk for accidents.
- (5) Sanctions should be imposed against pedestrians who refuse to use overhead bridges to cross the major streets, as they expose themselves and other road users to accidents.
- (6) The Government of Jamaica should encourage car pooling; walking and cycling. This would significantly reduce crashes, noise and pollution from vehicle emission.
- (7) Speed cameras should be installed in urban areas and road traffic offenders brought to justice. This would increase compliance with speed laws and commitment to safety.
- (8) Sanctions should be brought against motorists who display customized licence plates on their vehicles. These individuals are likely to "hit and run."
- (9) The playing of abnormally loud music and the use of mobile phones without head set/ear piece while driving and/or crossing the street should be prohibited.
- (10) Whenever roads are under construction, the signage "Men at Work" should be displayed at least 250 metres before reaching the scene, rather than immediately at where work is in progress. This would also reduce accident.
- (11) The reports from the general insurance companies have a combined sum which includes accidents, fatalities, stolen vehicle, and other motor vehicle claims. For statistical accuracy, this should be separated to specificity.
- (12) Relevant sections from the Road Traffic Amendment Act 2005 should be highlighted as slogans during the various road safety campaigns.

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Table 1. Road traffic accident fatalities by gender for 2005 & 2006

Age group	<u>2005</u>		<u>2006</u>		Total
	Gender				
	Male	Female	Male	Female	
0 - 9	11	5	9	8	33
0 - 19	26	11	38	9	84
20 - 29	60	10	54	13	137
30 - 39	44	12	42	8	106
40 - 49	26	6	41	11	84
50 - 59	18	3	25	8	54
60 - 69	19	7	15	2	43
70+	21	4	17	9	51
Total	225	58	241	68	592

Table 2. Road traffic accident fatalities by age groups from 2001 – 2005

Age group	Years					Total
	2001	2002	2003	2004	2005	
Unknown	2	0	21	27	41	91
0 - 9	27	28	23	17	16	111
0 - 19	37	55	43	25	37	197
20 - 29	85	85	81	63	70	384
30 - 39	84	87	70	73	57	371
40 - 49	41	62	53	56	31	243
50 - 59	27	32	42	31	21	153
60 - 69	29	28	24	43	27	151
70+	29	31	34	25	26	145
Total	361	408	391	360	326	1856

Table 3. Categories of road user's fatalities (2001 – 2006)

Categories	Years						Total
	2001	2002	2003	2004	2005	2006	
Pedestrian	115	126	119	96	110	101	667
Pedal cyclist	59	41	51	46	29	33	259
Motor cyclist	32	41	37	29	32	35	206
Pillion passengers	9	5	4	11	8	6	43
PPV passengers	13	26	21	19	16	29	124
PMC passengers	53	68	61	70	60	56	368
CMC passengers	17	13	12	5	8	12	67
PPV drivers	5	11	10	10	12	15	63
PMC drivers	51	72	67	68	44	72	374
CMC drivers	7	5	9	6	7	7	41
Total	361	408	391	360	326	366	2212

PMC – private motor car; CMC – commercial motor car; PPV – private passenger vehicle

Table 4. Motor vehicle accidents by time of day and year

Categories	Years						Total
	2001	2002	2003	2004	2005	2006	
0000h – 0300h	21	27	24	31	18	30	151
0300h – 0600h	16	42	20	22	28	29	157
0600h – 0900h	40	29	34	43	43	46	235
0900h – 1200h	41	41	35	24	37	28	206
1200h – 1500h	48	62	61	35	43	37	286
1500h – 1800h	68	51	67	44	34	46	310
1800h – 2100h	52	69	69	68	47	55	360
2100h – 2400h	37	47	46	41	35	39	245
Total	323	368	356	308	285	310	1950

Table 5. Road Traffic Accidents by Location (2000-2005)

Location	2000	2001	2002	2003	2004	2005	TOTAL
St. Andrew	4,536	7,314	5,120	5,346	4,228	3,519	30,063
Kingston	1,451	1,288	1,115	1,150	1,144	1,111	7,259
St. Catherine	1,160	1,594	1,631	1,262	1,017	1,156	7,820
St. Thomas	379	169	231	216	166	151	1,312
St. James	208	250	347	502	495	489	2,291
Westmoreland	317	391	359	288	327	319	2,001
Hanover	86	123	116	118	134	157	734
Trelawny	266	247	257	228	173	170	1,341
St. Ann	835	885	1,025	971	1,021	919	5,656
St. Mary	473	505	531	444	525	510	2,988
Portland	204	229	239	234	291	248	1,445
Manchester	334	409	653	1,131	1,071	959	4,557
Clarendon	621	501	351	484	434	417	2,808
St. Elizabeth	275	350	255	211	260	213	1,564

Table 6. Annual insurance coverage for motor vehicle mishap (2001-2006)

Year	Annual Claims Paid (US\$)							Total (US\$)
	Company A	Company B	Company C	Company D	Company E	Company F	Company G	
2001	564,602.69	950,472.58	590,718.64	554,111.05	808,173.03	2,517,605.42	3,694,817.24	9,680,500.65
2002	827,528.08	1,092,175.60	751,611.94	543,926.78	653,696.88	1,579,140.01	4,418,892.76	9,866,972.05
2003	1,381,847.70	1,027,709.32	1,231,893.12	918,870.99	505,692.58	2,613,740.84	4,769,029.34	12,448,783.89
2004	2,115,725.75	1,682,961.25	1,389,809.45	1,098,367.14	487,526.61	3,505,535.20	4,739,691.78	15,019,617.18
2005	3,305,530.62	2,119,950.36	1,472,476.65	1,276,651.16	475,689.96	4,778,007.26	5,479,199.06	18,907,505.07
2006	3,245,235.65	1,691,454.10	1,676,657.52	1,663,115.13	6,008,879.67	6,921,893.17	6,406,788.10	27,614,023.34
Total	11,440,470.49	8,564,723.21	7,113,167.32	6,055,042.25	8,939,658.73	21,915,921.90	29,508,418.29	93,537,402.19

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