



The Research on Social Capital of Industry-University-Research Institute Cooperation

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Abstract

The technological cooperation and technological innovation are not only the material and technological activities, but also the complex social process. The industry-university-research institute (IUR) cooperation cannot success without the social capital which is embedded in the cooperative members' relation network. Based on the framework of social capital Nahapiet and Ghoshal concluded, this article analyzed the social capital factors which influence realization of industry-university-research institute cooperation from the structural, relational and cognitive dimensions. And it proposed some countermeasures to promote realization of IUR cooperation in the perspective of social capital.

Keywords: Social capital, Industry-University-Research institute (IUR), Innovation

1. Introduction

The cooperation of industry-university-research institute (IUR) is an inevitable outcome of market economy and knowledge economy, and is a very important part in national innovation system. Although there are 30,000 scientific and technological (S&T) achievements each year in China, only 30% of them can be transformed and only 10% can be successfully industrialized. This strongly hinders the development of the Chinese economy. With the data collection and analysis, it can be found that the Chinese and foreign scholars have begun to research the IUR cooperation in the perspective of knowledge management and knowledge alliance rather than in the perspective of surface problem and organization pattern. Because of insufficient cognition of the social network environment which influences and restricts realization of IUR cooperation, the researchers' studying methods were probably limited in technological field, and were lack of the perspective of social capital, which were mostly based on the social network. With the deepening of research on the technological cooperation and innovation, foreign scholars (Fountain, 1997; Dyer and Singly, 1998; Lane and Lubatkin, 1998) have begun to apply the social capital theory of the new economic sociology to the research on the technological cooperation and diffusion. They noted that the inter-organizational relation creates the chances of acquiring and utilization knowledge. And the interpersonal relationship connecting with organizations has great significance for the application of new technology (Rogers, 1995). Scholars have generally thought that the social capital which takes social relation network as main content, remarkably affects the technological cooperation and innovation. Therefore, the social capital will be a good analysis pattern, and it can broaden the research approach for researching IUR cooperation and innovation.

2. Social capital analytical framework of IUR cooperation

The foreign scholars such as Bourdieu, Coleman, Burt, Putnam, Granovetter, etc, made a great contribution to the contemporary social capital theory. Based on the studies of the predecessors, Nahapiet, Ghoshal and Tsai (1997, 1998) began to apply the social capital concept to the research field of management, and probed into the relationship between social capital, intellectual capital and creation of enterprises value. They defined social capital as the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Also they separated three basic dimensions of social capital: the structural, the relational and the cognitive dimensions, which provided a clear analytical framework for organization researching. The structural dimension is the whole pattern of individual relationship, emphasizes the impersonal configuration of social network, and focuses on the characteristics of network connection and network configuration, such as existence or inexistence of network connection, intensity or weakness of network ties, density, connectivity, hierarchy, and core of network, etc. The relational dimension is the asset created and maintained by interpersonal relationship, emphasizing the personification of social network, e.g., trust and trustworthiness, norms and sanctions, obligations and expectations, and identity and identification. The cognitive dimension refers to those resources providing shared representations, interpretations, and systems of meaning among different actors, such as shared language and codes (Arrow, 1974; Cicourel, 1973; Monteverde, 1995) and shared narratives (Orr, 1990), etc. Synthesizing the research of Nahapiet, Ghoshal and Tsai, Guoyi and Zhuxi (2003) showed the analytical framework of social capital in the figure 1.

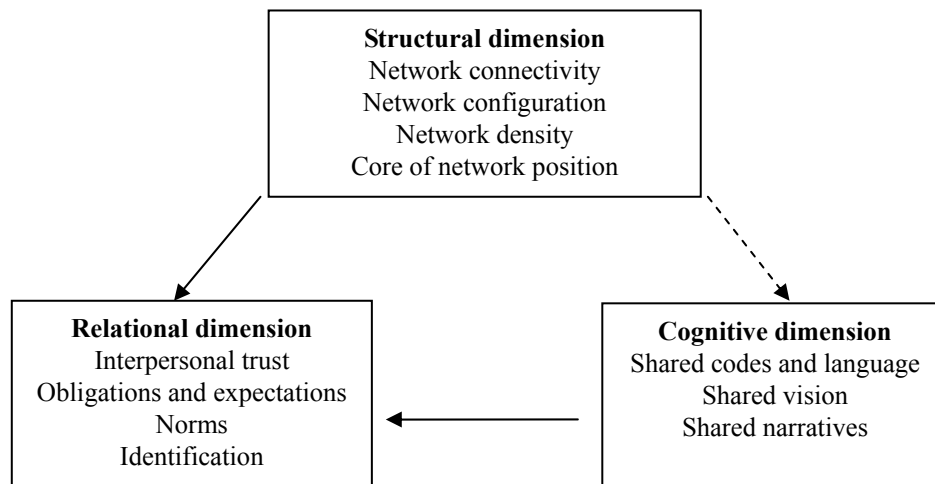


Figure 1. Social capital analytical framework

In the view of the new economic sociology, the IUR cooperation is a social process. The activities of behavior subjects are embedded in the social network, and restrained by it. The technological cooperation and technological innovation are not only the material and technological activities, but also the complex social process. It is impossible for a lot of successful realization of the IUR cooperation and innovation without the social capital which embedded in the cooperative members' relation network. The social capital can timely provide the critical resource and information for the network members; increase the association among them; promote the formation of trust; strengthen cooperative expectations; and economize supervision cost. On the other hand, with these functions, social capital of enterprise is beneficial to organization's creation, accumulation and utilization of knowledge. As the organization pattern of inter-organizational knowledge transference and management, the IUR cooperation should be analyzed in the method of the social capital through these dimensions.

3. Analysis of social capital of IUR cooperation

3.1 Analysis of structural dimension of the IUR social capital

The structural dimension of social capital mostly describes network connectivity and network configuration. The network ties of IUR cooperation refer to those relations between enterprises, universities, and research institutes. With the network ties, the universities and the research institutes provide knowledge and technology for the enterprises. At the same time, they get the market demands offered by the enterprises, which facilitate the creation of S&T. Thus the ties in the IUR network are the important channels to obtain knowledge, technology, and information for the relevant members. There are two properties of the network connection: intenseness and weakness. The strong ties can maintain the relationship among members, facilitate communication of tacit knowledge and high quality information among enterprises (Hansen, 1999), and decrease the uncertainty of obtaining information and opportunity cost. In addition, they enhance the mutual trust with which accelerates the exchanging of information and knowledge. Therefore, the strategy alliance, joint technological creation, and co-founding enterprise entity are more and more welcome to the enterprises, universities, and institutes. On the other hand, Granovetter (1973) thought that the more strong-ties, the more similar between actors. The homogeneous information obtained from strong ties will cause the redundancy and repetition of information. In contrast, the weak ties are able to overcome these shortcomings (Granovetter, 1973). The weak ties can bring the disparate information of other group to the individual who is not belong to this group, because of abound connection among different members. The more weak ties in the enterprises' network, the newer and the more unique information, which plays a very important role in S&T innovation, can be easily acquired. As a result, the enterprises need construct the ties with government, intermediary agency, venture capitalist, supplier, and distributor, and bring these connections into the IUR network (Fig. 2). With these abound weak ties, members of the IUR can easily communicate the information, technology, and knowledge, and efficiently promote the transmission of S&T achievements.

Besides, the property of network configuration is very important to acquire the information resources, and affects the efficiency of informational diffusion. With the difference from quantity of connection focused by the network connectivity, the network configuration concerns on quality and efficiency. According to the "structural holes" theory (Burt, 1992), most of networks of social relation are not often completely connected networks. In these networks, there are some structural holes (i.e., disconnections between irredundant contacts in a network), called by Burt. He noted that the dense network is inefficient in the sense that it returns less diverse information for the same cost as that of the sparse network. The enterprise with close linkage sometimes generates redundant information because of his redundant contacts. But the enterprise, occupying the structural holes, will get chance to contact the various heterogeneous and

unrepeated information, which minimizes redundancy of information and generates information benefits. In addition, due to the position of structural holes, the structural holes also generate control benefits. Because the actor is in the structural holes and occupies the key route, he can create a bridge between otherwise disconnected members, and can decide the diffusion direction of various resource. Therefore, not the more and quick information but the position of the gaps between irredundant contacts, which gives certain players in a competitive arena an advantage in negotiating their relationships, is the most critical. Powell (1999) also thought that the enterprise being in the centre location of network can get more patents than other enterprises. Thus, the cooperative mechanism of IUR in which enterprise is in the core location should be established. The core enterprise should maintain the connection with other members, and create the bridge among other disconnected members to obtain much better network resources.

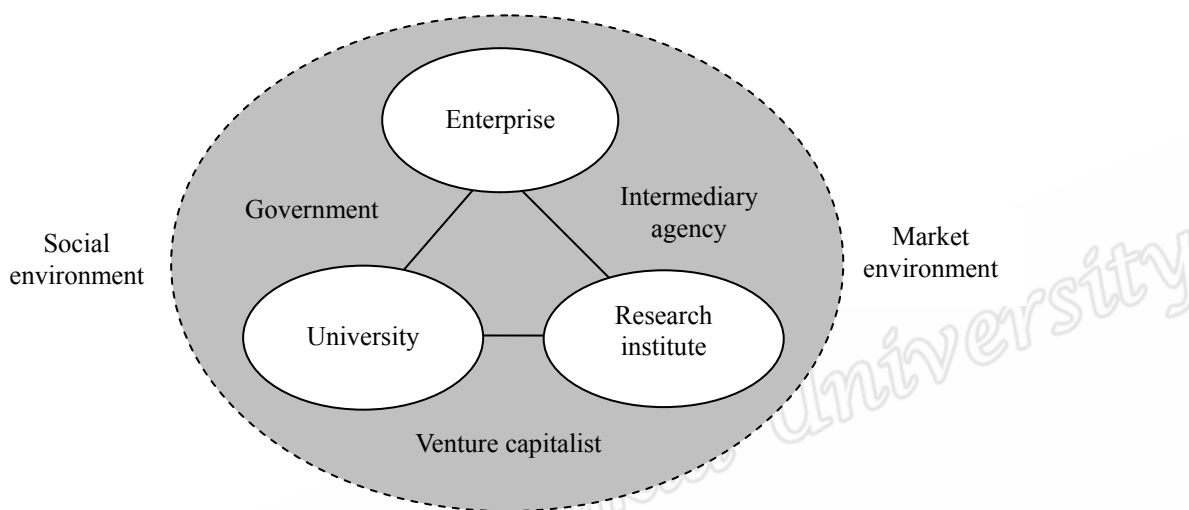


Figure 2. Structural dimension of the IUR social capital

3.2 Analysis of relational dimension of the IUR social capital

The relational dimension of social capital mainly refers to the trust and associability among organizations. The concepts of trust are inherently elusive and contested notions to the extent that they refer to highly complex forms of social relations and processes which are necessary for the generation and maintenance of collective action (Gambetta 1988; Giddens 1990; Kramer and Tyler 1996; Layder 1997). Thus, in the research of cooperative relationship, the inter-organizational trust is very important and critical (Lewicki, McAllister and Bies, 1998). Gulati (1995) thought that the inter-organizational trust can diminish the probability of opportunism of partners. The mutual trust derived from repeated connection in the IUR network should be the significant part of the cooperative governance mechanism. Because of replacing a part of contract, the trust thus reduces the costs of transactions produced in the IUR organization, and improves the performance of technological cooperation. Chiles and McMackin (1996) also pointed that relationships the high in trust, members are more willing to share and exchange the information. In the IUR network, the good cooperative relationship can produce trust between enterprises, universities and research institutes. Based on the trust and trustworthiness, they are more willing to participate in the cooperative technology innovation activities, and feel safer in developing the new products and technologies. Moreover, owing to the inter-organizational trust, they can effectively know each other, and frankly communicate. In fact, the trust promotes the development of cooperative creation, and enhances the enterprises' ability of absorbing knowledge (Scott, 2003). On the other hand, there is a two-way interaction between trust and cooperation: trust lubricates cooperation, and cooperation itself breeds trust. This may lead to the development, over time, of generalized norms of cooperation, which increase yet further the willingness to engage in social exchange and possibility of technological cooperation. Coleman (1988) suggests that "where a norm exists and is effective, it constitutes a powerful though sometimes fragile form of social capital".

The associability is also an important part in the relational dimension of social capital. Leana and Van Bure (1999) noted it as the degree of individual target obeying or associating with the organizational collective target. The inter-organizational social capital also has this property. The members of the IUR network not only exchange and combine the resource, knowledge and information, but also ensure their activities realizing their common target, in spite of individual interests. In the process of technological cooperation, the enterprise, the university and the research institute have different benefit aspirations, and they difficultly coordinate their goals. Because of the deviation between individual goal and collective goal, the incongruity of target often affects the success of the IUR cooperation.

3.3 Analysis of cognitive dimension of the IUR social capital

The third dimension of social capital, which we label the "cognitive dimension," refers to those resources providing shared representations, interpretations, and systems of meaning among parties, including shared language and codes, and shared narratives. Nahapiet and Ghoshal (1997) noted that "to the extent that people share a common language, this facilitates their ability to gain access to people and their information. To the extent that their language and codes are different, this keeps people apart and restricts their access." Francis Fukuyama (1997) also indicated that "social capital ought to be simply formulated as a series of informal value and norm, with which individual and group are more willing to engage in cooperative interaction." Through the shared languages, codes, and values, the network members can easily communicate each other, decrease the coordination costs with the presence of misunderstanding, and diminish the probability of opportunism. Moreover, the shared language and codes are the filters of ideology, which provide the background and analytical framework for understanding and cognition, and facilitate the production of tacit knowledge. The realization of effective communication in the process of the IUR cooperation requires the similarly background of the members, which is the shared languages and representations of comprehension. Nevertheless, there are less shared and common systems of meaning because of the long-term completely different background of members. The enterprises specially concern on the productive technologies and the development of market, and pay attention to the economic benefit. In contrast, the universities and the research institutes are inclined to do the basic research, concern on the academic value of research, and are short of assurance to the market demand. The great difference in value, organizational routine, innovative consciousness, and organizational culture among them is the principal obstacle of tacit knowledge explicating and sticky knowledge transferring in the cooperative process. Therefore, the shared systems of meaning of the IUR, showed in the figure. 3, ought to be constructed in the way of the tight connection and frequent communication.

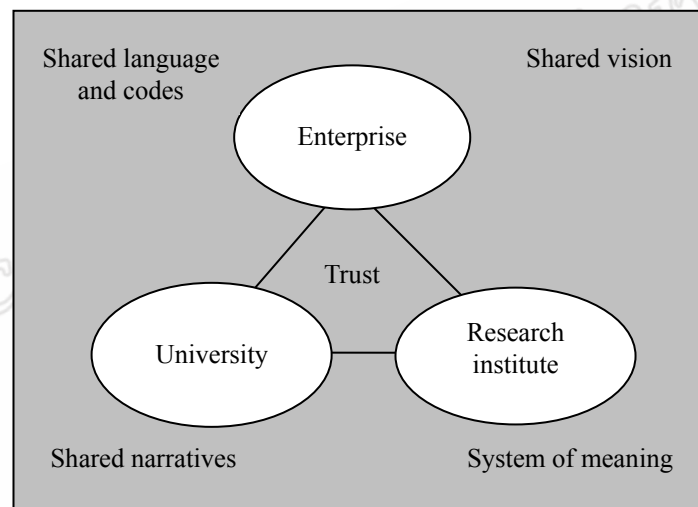


Figure 3. Relational and Cognitive dimension of the IUR social capital

3.4 Analysis of relation of three dimensions of the IUR social capital

There is difference between structural dimension, relational dimension and cognitive dimension. The structural dimension discusses whether there exists the network. The relational dimension discusses the quality of the network, especially focusing on the affective quality of relationship. However, the cognitive dimension concerns on the cognitive quality of relationship, for example whether truly comprehends each other or not (Bolino, 2002). Therefore, cognitive society capital is the deepest thing of the enterprise's social capital (Zhou xiao-hu, 2006). Besides, although social capital can be separated three dimensions analytically, they are actually inseparable. It is theoretically possible that structural social capital exists and cognitive social capital does not exist and vice versa, but it is practically impossible and difficult that one exists and another does not exist (Uphoff, 1999). It is difficult to imagine that there is a distinct and ordered network structure of a cooperative organization without shared language, shared codes and other shared systems of meaning. Conversely also the same, the groups with the shared systems of meaning can effectively cooperate with each other, without the relation among them. Finally, Tsai and Ghoshal (1998) thought that many of the features of social capital are highly interrelated. By the analysis of network data, they had preliminarily verified that both the structural and cognitive dimensions of social capital have a strong influence on the relational dimension; however the structural dimension of social capital has a weak influence on the cognitive dimension. Weiyang (2007) indicated that the structural and relational dimensions can take effect with the cognitive dimension, but the cognitive dimension can effectively enhance the enterprises' ability of absorbing knowledge and even improve the innovation performance, with the high level of structural and relational dimensions. In fact, the three dimensions of social capital supplement and

promote each other. The structural dimension of social capital, with the tight and extensive social connection of the IUR network, can reinforce the quality of trust, and further cultivate the shared narratives of cognitive dimension. Meanwhile, the cognitive dimension of social capital, with the shared value and vision, could realize the effective communication, form mutual trust of members, and strengthen the ties among network nodes. Trust of relational dimension social capital is able to enhance the tight connection, and cultivate and format the network culture of the IUR. Thus, in order to improve innovative performance, members of the IUR network should evenly increase the level of three dimensions of corporate social capital. And with their interrelation, they should positively improve the ability of the information communication and information acquirement to make success of the IUR cooperation.

4. Conclusion and countermeasures

Because of weakness of technological ability and insufficiency of resource for developing, the enterprise needs to acquire and accumulate information, knowledge and resource, and to manage them reasonably and effectively. In another word, that how to obtain the relevant information and technologies from the external social network, is the key set to solve the problems occurred in the enterprises' life. It requires the members of the IUR network, in the cultural atmosphere of tacit agreement and cooperation, to cultivate trust and collectivism, which forms the powerful social capital and supports sustainable development of the enterprise's innovation.

Based on the analysis of social capital of the IUR network, several steps must be made to successfully realize the IUR cooperation. First, we should establish the cooperative innovation networks of IUR, and enrich the weak ties of enterprises. On the one hand, the enterprise should use different patterns of IUR cooperation, such as technology transfer, joint development, joint-stock company, and project commission, to cultivate the strong ties of the IUR network, to promote communication of implicit knowledge and high quality information, and to decrease the uncertainty of obtaining information and opportunity cost. On the other hand, the enterprise should pay attention to enhance the weak ties with government, professional social intermediary institutions (e.g. consulting company, accounting firm, venture guiding center), suppliers, customers, venture capital investors, competitors and other external deliveries (e.g. guild, professional association, MBA club) to construct the opening network with technological cooperation orientation. Secondly, according to structure holes theory, the enterprise ought to concern about the strategic position in the cooperative innovation networks of IUR. They should actively construct the more beneficial network structures. That is to say that the enterprise should concentrate on developing the network structure holes or ally with the firm being in strategic position in the network to make itself approach the network centrality, and to gain the advantage resource thereby. Thirdly, the trust mechanism in the cooperative network should be constructed to form the shared systems of meaning. The members of the IUR should coordinate their different targets by molding the shared vision, and strengthen the effective communication to further reinforce the connection of network members. Correspondingly, the members should cultivate the mutual trust and cooperative network culture, and form the shared codes and shared narratives to diminish the obstacles of communication and propagation of tacit knowledge. Finally, the external innovation environment with the fundamental of social capital should be constructed. The government should guide and standard the construction process. The S&T intermediate organizations oriented to the society should be established and perfected for technology diffusion, achievement transformation, technology evaluation, innovation decision, entrepreneurship decision and management consultation. The system of venture capital for the industrialization of S&T be constructed and perfected to develop the diversified investment subjects, and to widen the channels of fund source. The public S&T information platform should also be constructed, with the foundation of the S&T information agency, the S&T achievement agency, and the technological transaction institute, to transmit and communicate technical information in the wide area.

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Communication with Saudis

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Abstract

People have different cultural characteristics that affect the way they do business. Using compelling ways to categorize major cultural differences, this paper helps the reader understand how different concepts of time, the relevance of status and power in shaping organizational structure, communication methods, and ways to conduct meetings and social gatherings, all influence how interactions with a specific culture in Saudi Arabia can be made effective.

Keywords: Culture, Communication, Business

“He who steals the egg steals the camel”

“He who does not recognize the falcon grills it”

“Those who spend their wealth night and day, both privately and publicly, will receive their earnings from their Lord. No fear will lie upon them nor need ever feel saddened” (Arabic proverbs, Rothlauf, 1999, p403, p361)

1. Foreword

In my memory Saudi Arabia is a country, in which all men are wrapping with white scarf and having white blouses, all women are wrapping black scarf having black blouses and wearing always veils with only two big eyes staring on foreigners in vigilance, and is a country, which is very rich and has very high temperature. I have also heard of that the country hates communist a lot—I was a communist party member, now I have to handle with Saudis.

2. Introduction of Saudi Arabia

Saudi Arabia is one of the largest country on the Arabian Peninsula, is the 13th biggest nation in the world, it occupies about 75% of the Arabian peninsula in South West Asia. Oil dominates the Saudi Arabian economy, Saudi Arabia is the world's largest producer and exporter of crude oil, with the money earns from oil Saudi Arabia imports transport equipment, consumer goods, machinery etc. The availability of desalinated water has allowed the development of agriculture, which employs 48% of the workforce. The most famous city Mecca is visited by more than 1.5 million pilgrims a year, making a vital addition to state revenue. Nowadays Saudi Arabia has been taking measures to encourage tourism within the country—includes both sides: Saudis getting out seeing their own Kingdom (in stead staying at home) and attracting foreigners. Main indicators:

Area: 2,149,640 sq. km

Population: 20.3 million

GDP: \$145 billion, ranking 28th

GDP per capita: \$7,286, ranking 49th (Richard D. Lewis, 2003, p4)

3. Culture

Saudis are multi-active and dialogue-oriented. (Richard D. Lewis, 2003, p4)

3.1 Employer/employee relations

Saudis are people oriented. Though there is also modern laws to guide employer/employee relation (such as employer employee dispute solving etc.), the religion plays very important roles, according to Islam basic principle: every individual should be honest and be responsible to the group; every one should be treated equally (but not men and women); personal freedom and humanity should be guaranteed. Well beings of fellow men will be ensured: who must take care the sick family members do not need work in enterprises, who has pray responsibilities can leave work to Mosque nearby.

3.2 Present vs. Future Orientation

Saudis are future oriented, they consider that they are tightly ally with each other as well as with their organizations, diffuse relationships with high context communication in which one is bonded to organization as a whole thought they

are future oriented, they don't keen to make long term plan, actually they lack of long-term objectives. A common problem with many organizations in the Kingdom is that they do not establish a long- term plan and make firm commitment for their organizations. Most of them do not have a philosophy for quality, or a vision or a mission. They also lack the availability of documented procedures that show how the organization is operating.

3.3 Negotiation/compromise

Saudis focus more on person relation rather than task, they are looking for sincerity in your dealings with them, normally they are hard bargainers and regard the bargaining process as a normal part of both business and social life, the spoken word, when solemn, has much more weight than written agreements. The solemn commitment of a senior Saudi when pronounced orally in front of witnesses can generally be relied upon. Saudi has great pride in their personal integrity.

3.4 Entertaining

There are many taboos in this field: no alcohol; no pork; no nightclubs; no movie theatres; dressing appropriately, not mention female relatives, don't become overly familiar with the few women who are allowed to be met, don't challenge the basic concepts of Islam, use only right hand when at dinner etc. One should especially pay attention!

3.5 Communication

Saudis are extremely extrovert, theatrical, declamatory. (Richard D. Lewis, 2003, p5) Loudness of voice indicates sincerity. Eloquence and even rhetoric are admired and expected. They talk about family influence and connections in a boastful manner. Tone of conversation is often moralistic and integrity has priority over rationality. They are not very good listeners, strong eye contact is preferable. Flashing eyes and striking facial expression are part and parcel of discourse. Touching is frequent and expected. Kissing between men is common (even with foreigners once friendship is established.)

3.6 On the job actions

Saudis are honest to their organizations, and they consider they are parts of the organizations. Enterprises in Saudi Arabia are managed like a family, Top-down decision making, highly bureaucratic, over centralized with power and authority at the top. Leadership: patriarchal management style, highly authoritarian tone, rigid instructions, too many management directives, very less information will be exchanged. (Rothlaud, 999, p391-395) Ways of motivating and rewarding: Intrinsic satisfaction in being loved and respected management by subjective. Criticism and conflict resolution: Turn other cheek, save others' faces, do not lose power game. Never criticize or berate anyone publicly. Mutual respect is required at all times.

4. Three situations

4.1 Situation 1: I am a chef of a Saudi

4.1.1 Assumptions

Assumption 1: sure this subordinator should be a male and works in China, female Saudis seldom go abroad and work there (if the subordinator is a female, I will apply for change a position and let a female chef to supervise her.)

Assumption 2: there is only one Saudi, other subordinators are Chinese.

Because 1. I am a Chinese.

2. according to homework instruction: only one person from we chosen region.

3. I would like to eliminate one situation that all subordinators are all Saudis, next I would like to let my Chinese subordinators go along with this Saudi.

Assumption 3: the Saudi is for sure important for our firm (otherwise I will not waste limited sources to supervise him)

4.1.2 Two advantages can be taken for granted

a. Saudi Arabia is a rigid Islam country, this gives Saudis a tremendous power of religious faith, and a national unity based on a uniform social cultural code of living together. There is a meaning of commitment and pursuit of goals all along. Prophet Mohammed has said: "God likes those who do something they do it at their best". The Islamic religion has been a way of life for the Moslem society since the birth of this religion, and will continue to bring strength among families, societies and nations. So I have sufficient reasons to believe that he will be honest, he will do best on his job. Religion has tremendous strength which other ways, such as every day doctrinally to tell him "work hard", to monitor him very tightly, or to motivate him with money, can not get the same effects, but Saudi always shows honesty to others, in the same time they expect to see same honesty from others, that requires me and other co-workers to do the same, maybe the problem is how to show our honesty.

b. Education is being emphasized in Saudi Arabia. Saudis are being very open to learning new technology and acquiring management skills. Aspiring young Saudis have been encouraged to go to college not just at no cost but even through a

monthly compensation paid by the government to all students enrolled. Furthermore, the government has done an remarkable job in allowing as many students as possible to get their education overseas for advanced studies or specializations. Industry-wide technical, supervisory, and managerial training programs, in- company training courses are also often conducted across the nation. My Saudi should have been high educated, in general more educated, easier to communicate.

4.1.3 Management way I may take

Personally I think in Chinese micro-management area, there are typically two kinds of management method:

Method A: Friend management way, chef handles subordinators just like friends; they are working together, giving orders, receiving orders all in a cozy manner. Criticizing, motivating subordinators maybe all by jokes. After work they are having dinner, entertaining together, sometimes with their family. Subordinators can also “tease” chef, but it doesn’t affect chef to give orders and subordinators to carry out orders. In the inner department they are friends, no superior and inferior difference, out department subordinators respect and maintain chef’s authority.

Method B: Tough management way, chef holds always certain distance to subordinators. Chef gives orders in “cold” way, no smiles, no joking. They maybe have dinner or entertain together with guests, but status difference apparently exists. Their families maybe know each other but no way familiar with each other. Chef criticizes or even blames subordinators.

Different chefs may take different ways according to their character, but normally in some State-owned firms method A relative prevails, in Joint-ventures, private firms method B is overwhelming, and in factories method A is “vogue” than in firms.

Chinese one side share some common values with westerners (thanks of the open door policy) such as: work ethic; entrepreneurial spirit; experience in business; gender equality (Richard D. Lewis, 2003, p5), another side Chinese share some common values in traditional area with Saudis, though Chinese and Saudis have different culture backgrounds, such as: sincerity; honor (face); family; respect olds, So I should take the method A to supervise the Saudi. I will not only try to make friend with him, but also let other subordinators make friend with him.

4.1.3 Important issues to keep remember

-If he does something wrong, in order to save his “face”, I will criticize him in a “soft” way—with a joke or with praising in stead of criticizing such as: “In this way you have done excellently, next time try another way, it will maybe get better result”.

-I will very frequently and let other co-workers frequently say “How are you” to him and mention about his relatives, but never female relative.

-Invite him and his family with other co-workers and co-workers families to have dinner together, but no alcohol, no pork and females will have to have the dinner in separate room.

-Speak with him or chat with him after work, I will say loudly to show my sincerity, but never touch Israel, or other Middle East politic issues.

4.1.4 Difficult problems may encounter

-He wants pray during working time.

In his country he can freely do so during working time. If he applies it to me, I will permit him, he can pray at his office at any time and try to let other co-workers not be “jealous” him, do best to let him catch up with his working task—according to Assumption 3 he is very important for our firm.

-He complains that some female co-workers are having too “naked”, or when he visits a client, there is a young lady with very “modern” clothes, or a modern lady from our important client having “modern” clothes to visit us.

For first situation, it is relative easy to cope with, it’s in our own firm, I can let her have properly or exchange her with other department or not let them see each other when she has “naked” clothes (Though in Chinese firms, it is normal proper clothes to be required, maybe it is proper in China, not proper in our important Saudi’s eyes.), for later two situations, only way I can do is to let him not encounter this dangerous situation—call the client to ask whether they have a modern lady, when a modern young lady visits not arrange Saudi to meet and explain reasons both to clients and Saudi.

-If he refuses to have firm suit, which is a must according to firm’s regulation, and stick to have his traditional clothes.

Report to the controlling department to ask for a “except”

-If he always is late with appointment.

I will politely remind him sincerely, that in China on time is a politeness. (In Saudi Arabia maybe it is a common phenomenon not to be punctual.)

Sure, it will have many conflicts, I will handle those problems under one rule: whether the issues touch basic principles, if touch, I will make Saudi change mind, if not, I will satisfy him, all in all sincerity is most important.

4.2 I am a business representative in Saudi Arabia

4.2.1 Team building

-No left-handed in the team

It is difficult to make a left-handed member always use right hand in Saudi Arabia

-As fewer female members in the team as I can

Not all females agree to have conservative and all the time take a scarf as emergency needs—Saudi Arabia has specially religion policemen “Matawain” to enforce the modesty of dress in public and have full civil authority to arrest violators. I could not waste time to handle such kind of headache trivialities, and women are not allowed to drive in Saudi Arabia.

-Relative elder and married members

On the one hand married members with their family together living in Saudi Arabia will help to deal with “boring” life, on the other hand elders will show maturity, civilization which is easy to win respect from Saudis (Saudis respect old).

4.2.2 Preparation

-Training all members and their spouses

Invite “expert” who is familiar with Saudi Arabia customs from Chinese embassy or any other organizations to give the lectures. The lectures should cover including:

Main contents of Islam religion

Main difference between our culture and Saudi Arabia’s culture

Which areas should we specially take care?

How to dress properly

How to greet people

How to set appointment

-Business investigation and objectives setting

Who are our customers?

How are their backgrounds

Family connections, we can get such information, Saudis like to boast their family

Business coverage, relevant levels with our business

Attitudes for Chinese, did they communicate with Chinese before, how are their impressions

Hobbies, special customs, negotiation characters, etc.

Which objectives should we get when communicate with them

Which skills should we take, how can we start our communicating with them

Which behaviors should we act, should we create new patterns of behavior incorporating in Saudis Culture?

We shall adjust our objectives and communication styles according to different circumstance. This part is about some special behaviors in response to concrete customers, next I would like to list our general behaviors which we should act in Saudi Arabia,

4.2.3 General behaviors

-Dressing

- Wear conservative and modest style clothing; well cover body--even in extreme temperatures. Such as, always with jacket, necktie, long trousers, shirt (long-sleeved and buttoned up to the collarbone).

- No wearing of neck jewellery by men, it is forbidden by Saudi law, there is dangerousness of being arrested for neglecting to observe this rule.

- Women members always keep a scarf on hand (it is not necessarily to so but it is a wise way

- Women members dress modestly at all times: pack shirts, blouses, high necklines and sleeves reach at least to the elbows. Hemlines will be ankle-length or well below the knee.

- No wearing native clothing, such as robes and headdresses (It will be considered as offensive to Saudis).

-Making appointments

- Try to find a prominent Saudi as sponsor to arrange appointments with the appropriate contacts.
- Make only one appointment per day. Because in Saudi business culture punctuality is not as much of a priority.
- Keep patient when appointments are interrupted in the form of phone calls or visiting from our counterpart's friends and family. Moreover, or several other businesspeople present and several meetings occurring simultaneously.

-Entertaining

- Remove shoes before entering a home or other building. Follow the lead of your host.
- Eat exclusively with your right hand and take only the food that is offered to you.
- Eat as much as we can, because in Saudi culture eating large quantities of food is considered the proper way to express appreciation for a meal.
- Praise the food, but not draw attention to the wives, mothers or sisters who prepared it.
- Not mention unpleasant matters such as illness, misfortune, accidents or death.

-Negotiation (Richard D. Lewis, 2003, p6)

- Always be honest and just.
- Loud and rhetorically speak to our customers.

Loud means sincerity in Arabic culture. "if an Arab says exactly what he means without the expected assertion, other Arabs may still think he means the opposite" (Larry A. Samovar, Richard E. Porter, 1998 p99). The Gulf War took place partly because President Bush spoke softly; Saddam did not believe he meant what he said (about declaring war etc.). Richard D. Lewis, 2003, p6)

- Show theatrical body language, such as flashing eyes; striking facial expression.
- Hold close distance with counterparts.
- Try to build personal relations let counterparts trust us before do business.
- Pay close attention to all family members.

Enquire regularly about the health (and happiness) of our counterparts' brother, uncles, cousins and sons, but never female members.

- Bargain with Saudis with all kinds of emotional arguments they like to do that.
- Observe their taboos and avoid irritant, praise even flatter them (but not admire their possessions too much).

-Develop deep relation

- When we know our customers finished journey and back to Saudi Arabia, to greet him in airport.
- When some male family members are ill in hospital, visit them and bring them proper gift: food, fruits etc.

4.2.4 General Guidelines we have to keep remember

- Saudi officials work no more than six hours per day. Mornings are often the best times for appointments. Nevertheless, because of the summer heat, some Saudis prefer to work after dark and may request an evening appointment at any time until midnight.
- Business hours vary widely, but most businesses close early in the afternoon and reopen for a few hours in late afternoon.
- The work week runs from Saturday through Wednesday. Most people do not work on Thursdays; no business is conducted on Friday, the Muslim holy day.
- Government hours are 7:30 a.m. to 2:30 p.m., Saturday through Wednesday.
- Banking hours are typically 8:30 a.m. to 12 p.m. and 5:00 p.m. to 7:00 p.m., Saturday through Wednesday. Some banks keep Thursday morning hours as well.
- One cannot leave Saudi Arabia without an exit permit, regardless of the emergency.
- Saudis have great respect for the written word, especially if it has a religious connotation. One should avoid wrapping up anything in an Arabic-language newspaper, since it might contain Allah's name. Moreover, a copy of the Koran must be handled with tremendous care and respect.
- When sitting, keep both feet on the ground, since Arabs do not cross their legs when sitting. Moreover, exposing the bottom of foot is considered offensive.
- Although Saudis often like to gesture with their hands while speaking, pointing is considered extremely rude.

- The "thumbs up" sign is offensive throughout the Arab world.
- Ask for permission before taking photos of other people.
- Arabic is a language of hyperbole. For example, when a Saudi says "yes", he may actually mean "possibly." Although you should feel encouraged by these positive responses, it would be wrong to assume that the negotiating is over.
- Presents should never be alcohol perfumes containing alcohol pork pigskin products personal items such as underwear knives toy dogs or gifts that picture dogs images of nude or partially clad women (even in paintings or sculptures with artistic merit)

For taboos and special manners one should off course pay attention, it is also important experience and notice in the practice, which make Saudis embarrassing, which make them comfortable. I think that remembering taboos, gathering together regularly to feedback (self-monitoring and learning from mistakes) and share each other experiences collected in contacting with Saudis will be an effective way to make us succeed in Saudi Arabia.

4.3 I am a negotiation team leader in China

Should Saudis—our business counterpart want to satisfy their China tour, sure there would do some studies about China, as well as Chinese culture, backgrounds of our company etc. What do they expect after studied our culture or what is shining the Chinese culture to Saudis: modesty; hospitality; patience or maybe negative side: corruption etc. We will retain our merits; change their negative impressions through contacting them during their short visit.

4.3.1 Objectives

Successfully sign contract with them and develop high possibilities to do business in the future.

4.3.2 Images we would like to impress them

Courtesy, Sincerity, Respect their culture, Long business potentiality, those factors must be passed to them via conversation, negotiation with them, arranging their visit etc.

4.3.3 Measures

-Build a team

Try to find a pair of Chinese Muslims, it will make our guest more comfortable and also show that we respect Islam cultures, we have Muslims too, furthermore Muslims know their tenets, it may avoid some possible embarrassments.

Ensure no left-handed in the team.

-Train the team

- Use books, internet, TV and meet with people from Saudi Arabia's culture to get enough information about their taboos, custom etc.

- Try to find background information of our counterpart company through Chinese embassy in Saudi Arabia or Saudi embassy in China etc., China has a philosophy: know one, know counterpart, win always—that means when one is familiar with himself, in the same time one also is familiar with his counterpart, then he will win always.

- Invite teachers who are familiar with Saudi culture. (As 4.2.2 paragraph 1)

- Make a brochure for everyone of the team: which is noticeable, what should do what should not do.

- Identify every member's responsibilities: who will be in charge which fields etc.

-Set timetable and visit route

- Ensure no pork, no alcohol, no Left-handed servants in restaurants; , no "naked body" decorations in meeting room or similar occasions.

- Be care for whether there are Islam holy days during the visit.

-Send necessary information to them

- Such as timetable, preplanned visiting places, our attending team with detailed information, as well as photos.

- Ask about their opinion about intended arrangement.

- Require their information about their delegates, through that we can know their names status, after knew such information, we can also get further particulars about their family business scope etc. It is important to build a relation before business; Saudis are people-oriented, that we send photos etc. to them can give them a brief impression in advance.

-Anticipate problems may happen

Image any problems which may be encounter, and try to solve them, just like a drill, when they really happened, we can cope with them easily. There is a Chinese idiom: "prohibit any dangerousness possibilities, before they happen".

-Greeting

We are already friends—we know each other through exchanging information. Off course we can touch them and receive their kissing if they do.

-Arranging visit and business meeting

- Slowly come to business theme, first further familiar with each other, try to build “trust” atmosphere.
- Find right decision maker.
- Use similar skills (as 4.2.3) to negotiate with them, show our sincerity, respect with their culture.
- We are hard negotiator, but we are just and honest.
- Always active, extrovert, select right topic such as: sport, family, interesting Saudi appeals.
- Say “How are you” frequently during the visit.
- Observe their taboos, avoid irritants.

-Find right gifts

It might be Chinese traditional articles, will be selected according to the present principle. (Mentioned in 4.2.4)

When do business with a business party from different cultures it is always important to have respect for the other person, their beliefs and practices, but this does not mean in the least that you need lose your own sense of cultural identity and values. The ability to appreciate and build on cultural differences can lead to a richness and creativity in a relationship which would not result from one culture alone.

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The Satisfaction of Residents on Community Facilities in Shah Alam, Malaysia

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Abstract

Residents in urban areas are well provided with available facilities to choose from; may that be for education, grocery shopping, eating, recreation, praying, medical services and others. Residents can choose any of these facilities for their needs and wants. There is however some variance in the choice of facilities for different types of housing areas. The availability of facilities has to some degree affect the satisfaction of residents towards their housing environment. This paper revolves around the findings of a research relating to the level of satisfaction of residents in urban low cost flats towards the availability and accessibility of facilities in two cities. There are a total of eight locations of low cost flats; five of which are located in the city of Shah Alam and three locations in the city of Klang. Combinations of qualitative and quantitative methods were used to approach this study. Survey data were analysed through the SPSS program and also by the Grounded Theory Analysis. The findings show that the factors of availability and accessibility of facilities play an important role in the level of satisfaction of these residents. Findings also show that that the respondents in Shah Alam are more satisfied compared to those in Klang towards the community facilities domain in their housing area. In general, it can be concluded that residents living in Shah Alam has a higher level of well-being than in Klang where community facilities domain is concerned.

Keywords: Low Cost Flats, Accessibility, Facilities, Community, Housing

1. Introduction

The housing environment is an important living domain for human beings. The life of a person is tied to the house in which he lives in. The house represent a shelter from outside elements, gives a status symbol to the owner, becomes an asset for the buyer and give the role of a neighbour or a member of a community to the resident. In the Dictionary of Human Geography (Johnston et. al 2000), housing is defined as a form of shelter, a refuge, a welfare service, an investment and a gateway to jobs, services and social support. In most societies, housing is available both according to need (in areas where housing provision is an element of social policy) and according to the ability to pay (where housing policy is more directly geared to market principles). This definition enlightened us to the reality of the provision of housing in a market economy where only those who can afford will pay the market price and those who cannot afford will be subsidized. Housing constitutes a big economic sector that generates income for the country and building houses provide employment to many people from the labourer to the housing developer. Therefore housing has many functions in a society and also a definite role in promoting the well-being of the residents who live, work and play in it. Housing consists of the physical components and the social components. The physical components include the houses, facilities and utilities while the social components include the families, neighbours and the community. For the purpose of this paper, only the community facilities component will become the focus of discussions.

2. The concept of well-being in housing

The concept of well-being in housing may be approached from the town planning point of view. In essence, town planning is an art and science of shaping the built environment we live in with the objective of creating a comfortable, safe, convenient and healthy living environment. For this purpose planning for housing is best approached at the neighbourhood level. This is because the conception of the neighbourhood unit according to Perry (1910) provides for houses, infrastructure, utilities, green parks, school, shops, places of worship, employment opportunities, clinics, other social and public facilities. These provisions are planned to promote cohesion of residents and therefore the well-being of residents. There are several ideas that encouraged planning at the neighbourhood level and the most classical one is the 'Garden City' concept by Ebenezer Howard (1850-1928), Perry (1910), Le Corbusier (1923) and Clarence Stein (1928) that can be found in the writings of Ratcliffe (1981). Therefore housing plays an important role in providing quality of life to people. Housing is central to the everyday life of human beings, being the core of social, cultural,

community and economic activity. MacCall (1975) stated the best way of approaching quality of life measurement is to measure the extent to which people's 'happiness requirements' are met. These requirements are necessary (although not sufficient) condition of anyone's happiness but those without which no member of the human race can be happy. What then constitute happiness? Aristotle the Greek philosopher claimed that happiness as being the ultimate end of man. Happiness in all its degree is good and there is nothing more valuable than happiness. Happiness expresses itself in moral virtues (courage, temperance, liberality, magnanimity, love of honour, mildness, truthfulness, friendship and the higher of them all justice) and also manifests itself in intellectual virtues (Sharif 1963). From the viewpoint of Islam, happiness is the feeling that resides in the heart. It is characterized by peace of mind, tranquillity, a sense of well being, and a relaxed disposition. It comes as a result of proper behaviour, both inward and outward, and is inspired by strong faith (Science ISLAM). Therefore it can be summarized that residents in a neighbourhood will be satisfied and happy when their housing 'needs and wants' are met. The literature also acknowledge that there are other reasons for people to be happy with their life but this study only concentrated on the feelings of happiness and satisfaction towards the availability, accessibility and choice of facilities.

3. Low cost housing policy in Malaysia

The nineteenth century saw most of the developed countries experiencing the migration of the majority of their populations moving from the country to the towns and cities and causing rapid urbanization. In the developing world scenario, for reasons of pressure as well as attraction, people had flocked to their cities in their hundreds or millions. These cities try to cope with the provisions of housing and facilities to the urban settlers but this phenomenon is sometimes an impossible task to tackle (Habitat 2001). The migrants moving to the city were at the time, the new pool of workers needed in the manufacturing sector but they had become victims to the lack of accommodation and affordable housing in these places.

In the policy context, the provision for low-cost housing was not explicitly mentioned as an objective in the First Malaysia Plan (1966-1970), it was duly stressed that one of the major efforts of the government is to promote the welfare of the lower-income group. Then with the introduction of the NEP in 1971, housing program was undertaken by both public and private sectors directed towards meeting the specific needs of the population. The effort to improve the life quality of the poor was seen in the Mid-Term Review of the Second Malaysian Plan (1971-1975) which points out that the provision of low-cost housing is aimed directly at improving the living conditions of the urban poor. In the Third Malaysia Plan, public housing programs focused mainly on low-cost, the construction of houses in land settlement schemes and the continuing provision of staff quarters. However, the provision for adequate and affordable housing for the lower income group was a top agenda in the Fourth Malaysia Plan (1981-1985) and the government included the involvement of the private sector in ensuring an adequate supply of low cost housing for the country. Under the Fifth Malaysia Plan (1986-1990), the low cost housing policy stresses not only the need to eradicate poverty but also to create new Malay urban communities which are active in the national economy. The housing policy under the Sixth Malaysia Plan (1991-1995) still emphasized the development of the low income housing based on the human settlement concept and the continuation of the New Economic Policy. However a new policy of privatization of public low-cost housing was introduced to solve the housing for the poor and lower income group. The low-cost housing policy in the Seventh Malaysia Plan (1996-2000) announced a new strategy to resolve the low-cost housing needs of the country by emphasizing the role of the Employees Provident Fund (EPF) to undertake massive low and medium cost housing projects throughout the country. The Malaysia Plans was drafted to assist and facilitate efforts in improving the quality of life for the Malaysian people stating that its citizens will enjoy and optimize available opportunities including education, employment and social facilities. The Plan also state that the government will take effort to ensure wider coverage of improved social facilities for all households.

Under the Eighth Malaysian Plan, (2001-2005), the government wants to undertake a program to upgrade and improve the low cost public housing to ensure that the buildings, common facilities and other public amenities are well maintained. The housing program emphasizes the safety, health, convenience and good living environment. In the Ninth Malaysia Plan (2006-2010), housing development focus on the adequacy, quality and the affordability of housing for sale or rent, for all Malaysians, especially for those in the low and middle income groups. Among others, the implementation of the low cost housing program will be expedited in the final phase of the Ninth Malaysia Plan with the additional construction of 18 500 *Program Perumahan Rakyat* (Public Housing Program) units for rent. Furthermore, 12,300 units under the *Rumah Mampu Milik* (Affordable Housing) program will be built by 2010.

In summary, the low cost housing program in Malaysia is one of the top agenda in all the Malaysia Economic Plans in that the government wants the housing development to focus on adequate, quality and affordable housing. The Government wants housing for the low income earners emphasizes safety, health, convenience with ample provision of social facilities (Seventh and Eighth Malaysia Plan).

4. The Study Area: Shah Alam And Klang

Shah Alam and Klang are two cities located in the prosperous Klang Valley in the state of Selangor which has the

second highest urban population in Malaysia. According to the 2000 population census, the urban population in Klang is 631,676 persons. It is geographically located south-west from the city of Kuala Lumpur by the coast. Klang is famously known for being the royal town for the State. Between 1974 and 1977, Klang was the capital of Selangor when Kuala Lumpur became a Federal Territory and before Shah Alam was made the capital of Selangor. It was in 1977 when Klang Municipal Council was formed with a total area of 60.9 square kilometers. The city of Klang is made up of an older city centre which has grown radially along major routes and one of them linked the city to a port known as Port Klang. Some parts of the older city centre retained the colonial planning design and contains much of the past history of Klang. The newer parts have undergone massive developments with the building of huge shopping complexes and office towers. Klang has not yet been granted the city status but geographically, by virtue of the size of its population, Klang is considered as a city.

Shah Alam, the first planned new town in Malaysia was developed in 1963, formerly known as Sungai Renggam (later as Batu Tiga) with mostly with rubber and palm oil estates. Its current name was chosen by the then Sultan of Selangor, Sultan Salahuddin Abdul Aziz Shah, after his late father Sultan Alam Shah. On 7th December 1978, through the proclamation of the late His Royal Highness Sultan Salahuddin Abdul Aziz Al Haj, the 8th Sultan of Selangor, Shah Alam has been declared as the new state capital of Selangor. The city was granted city status on 10 October 2000. In the 2000 Malaysian Census, the urban population of Shah Alam is estimated to be 319,612 persons. On the 10th of October 2000, the local council was upgraded from a municipal council to a city council known as the Shah Alam City Council (SACC).

The study area of Klang and Shah Alam is focused specifically on the low cost flats in and around the city centre irrespective of whether they are built by the private, public or a joint venture. They may be of a five storey walk-up flats or higher level flats with elevators. The locations of low cost flats in Klang are further away from the city centre because they were built much later after the land around the city was fully developed during the early years. The flats in Shah Alam are located near to the city centre because they were planned from the start to house the factory workers working in the industrial areas around the city centre. The cities of Klang and Shah Alam have their own unique histories and functions yet they also have similar characteristics such as heterogeneous population, high commercial activity, active housing industry and relatively good transportation system.

5. Methodology

The research into well-being of residents is approached by the qualitative methods and analysis and there are three types of surveys carried out to gather information and data. For this study the surveys are the visual survey, the questionnaire survey and the in-depth interview using the Grounded Theory method. The first two surveys comply with the parameters and the subjective indicators that had been decided for this study (Refer to Table 1). On the other hand the in-depth interview is not guided by any list of queries but the questions revolve on the theme of well-being and community facilities. The interviewer act as a moderator and the respondent is free to tell his side of the story. The study was undertaken in 8 locations in the two cities whereby there are five in Shah Alam and three in Klang.

The visual survey of the facilities includes the observation on the condition and location, with the help of a checklist of facilities. This is helpful towards understanding the daily activities of the community in that area. Photographs of the facilities and the neighbourhood environment are taken to become evidence of any complaints of the residents on the physical shortcomings of the housing facilities such as the lack of playing equipments, the lack of maintenance of playgrounds, the lack of shops or the lack of social facilities. A survey form was designed for personal interview to acquire the perceptions regarding the satisfaction of the facilities that are available in the two cities. The Likert scale measures the responses where scores and ratings are given for example to the perception of satisfaction on certain matters. The sampling methodology used for this research is a combination of both stratified and systematic random sampling. A ten percent (10%) sample of 508 units is found to be the most appropriate size to minimize the sampling error. Furthermore, the sample size is considered large enough to be reasonably confident that it represents the population size. As such a total of 508 questionnaires were systematically and personally distributed for the interview. The Statistical Package for the Social Sciences software processed the data obtained from the questionnaire survey.

6. Results and discussions

Firstly, the findings from Table 2 show that there are many types of facilities available in the study areas of Shah Alam and Klang. These are community facilities that are necessary to fulfill the needs of the everyday life of the community without which the well-being of the residents will be compromised. The location and distance of these facilities are also important aspects to consider and the findings show that the availability of facilities within the one kilometer radius of the low cost flats is higher in Shah Alam than in Klang. The reason for this is because Shah Alam is a planned new town where facilities inside the city have been planned from the design stage. The one kilometer radius is significant in showing the comfortable walking distance and the accessibility of the facilities. Almost all the fifteen facilities within the one kilometer radius have shown 80 to 100 percent availability in Shah Alam compared to Klang that lacked about five facilities such as secondary school, playing field, government clinic, community hall and mosque. This finding

shows that in the context of this study, the low cost flats in Shah Alam have more types of facilities which are located within the one kilometer radius when compared to those in Klang. The planned new town of Shah Alam has shown that the neighbourhood concept can provide the community facilities for the people in the neighbourhood while the low cost flats in Klang are built not according to the neighbourhood concept but either as an ad-hoc planning, infill planning or just as an afterthought.

Secondly, the results from the opinion and perception survey are shown in Table 3. The findings showed that; the percentages of satisfied respondents are considerably higher in Shah Alam than in Klang, there are more unsatisfied respondents in Klang regarding facilities like grocery shops, library, house of worship, public telephones, playing fields and community halls and, the level of perception of the provision of facilities in Shah Alam fulfilling the needs of the residents is higher as compared to Klang, for example in Shah Alam, most of the respondents are very satisfied with the health services and facilities because they perceive this facility has managed to address most of their health problems.

Thirdly, results from t-tests in Table 4 show that there is a significant satisfaction on the *tadika* (kindergarten), secondary school, children playground, community hall, *surau* (community praying hall) and mosque between the respondents in Shah Alam and Klang except for the primary school. Based on the mean score, the respondents in Shah Alam are shown to be more satisfied with most of the facilities compared to the respondents in Klang. This clearly shows that facilities in Shah Alam offer more satisfaction to the residents as compared to residents in Klang in the context of facilities provided.

The findings from the in-depth interview also agree with the t-test results although the respondents do not always categorize their difficulties as major problems. Some respondents voice out the problems of lack of playgrounds, lack of choice in their shopping outlets or that the schools are not that close to their houses but they seem to be quite forgiving with this situation. They say that there are some difficulties with the lack of satisfactory playing area but consider them only as a minor problem. And although they are unhappy with certain facilities, the respondents only quietly grumble and do not show any visible anger. Yet on closer observation these problems do cause some inconveniences in their life such as the need to use the public transport to go to the government hospital or to go to school (especially in Klang). But one has to understand the background of these respondents where a large number of them used to live in squatter settlements. Moving into the low cost housing environment is a blessing compared to the haphazard condition of squatter housing; with the lack of utilities and infrastructure. In fact there are many respondents who are very thankful and happy to be given the opportunity to live in low cost flats. Therefore from the Grounded Theory Analysis it can be concluded that availability of community facilities has increased the well-being of residents of the low cost flats in Shah Alam and Klang and that the unavailability of some facilities in Klang has to some extent decreased the satisfaction level its residents.

The planning of community facilities must take into consideration the number of population, the location, the type of facility and the distance between the low cost flats and the facility. In the case of Shah Alam, the planning of community facilities follows the appropriate town planning guidelines and standards. This is the normal practice for the planning of any new towns in Malaysia. Therefore it can be assume that planned new towns like Shah Alam will have more satisfied residents relating to the availability of facilities and this is so very true for Shah Alam. The benefits of planning can be enjoyed by all residents including those living in low cost flats.

7. Conclusions

On the whole, a considerable percentage of respondents are quite happy with their low cost flats environment which include the provision of community facilities. Needless to say the location of these flats is relatively accessible to all types of facilities by virtue of their urban location. Yet the findings show that the availability or unavailability of facilities have considerable effect on the well-being of the residents. The feelings of dissatisfaction with their lack of facilities in their housing environment will decrease their level of well-being. Being in the low income group they have little resources to acquire facilities that are located further away from their homes. With the increase in the price of petrol and other necessities in life, the lower income group relies heavily on facilities located within the compounds of their homes. With this in mind, it is hoped that the policy makers, the local authorities and the planners will not overlook the community needs of the people living in low cost housing and to plan accordingly in future.

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Table 1. Examples of Subjective Indicators

PARAMETERS	INDICATORS
Comfort	<ul style="list-style-type: none"> •availability of facilities for playing •availability of facilities for interaction
Convenience	<ul style="list-style-type: none"> •adequate facilities •good access to facilities •accessibility
Satisfaction	<ul style="list-style-type: none"> •provision of adequate facilities •facilities located nearby •accessibility
Safety	<ul style="list-style-type: none"> • maintenance of facilities •design of playing equipment •open drains
Frequency of usage	<ul style="list-style-type: none"> •Types of facilities

The data acquired from the survey was based on a questionnaire. The respondents were asked of their opinions about the community facilities based on several parameters. These parameters will guide the questions which can also be known as subjective indicators.

Table 2. The scores given for percentage of availability of facilities within the one kilometer radius of the low cost flats in the study area.

Facilities	Shah Alam		Klang	
	Availability (%)	Scores	Availability (%)	Scores
1. Kindergarten	100	3	100	3
2. Primary School	100	3	100	3
3. Secondary School	80	3	33	1
4. Children Playground	100	3	66	3
5. Playing Fields	100	3	0	1
6. Grocery Shops	100	3	100	3
7. Mini Markets	100	3	66	3
8. Food Stalls	100	3	66	3
9. Restaurants	100	3	66	3
10. Private Clinics	100	3	66	3
11. Government Clinics	40	2	0	1
12. <i>Surau</i>	100	3	100	3
13. Mosque	80	3	0	1
14. Community Hall	40	2	0	1
15. Public Phone	100	3	66	3
Total Scores	43		35	

Note: *Surau* is a community prayer hall much smaller than a mosque.

The scores given are based on the percentage of the availability of facilities in each study location within one kilometer radius of the low cost flats (score 1 for 0% to 39%, score 2 for 40% to 65% and score 3 for 66% to 100%). For example; if all five locations in Shah Alam are provided with primary school then for that facility, Shah Alam deserves the score of 100 percent. The total scores given to the availability of facilities within the one kilometer radius of the study locations are 43 for Shah Alam and 35 for Klang. Therefore there is a higher availability of facilities in Shah Alam than in Klang.

Table 3. Percentage of satisfied respondents on the community facilities

Community Facilities	Shah Alam		Klang	
	%	Rank	%	Rank
Private and Government Clinics	87.0	1	58.6	4
Primary school	80.2	2	71.2	1
Secondary school	80.0	3	65.3	3
<i>Tadika</i> and kindergarten	79.2	4	66.0	2
<i>Surau and mosque</i>	73.4	5	32.0	7
Grocery shops and mini-markets	69.3	6	45.7	5
Public telephones	65.4	7	31.4	8
Playground and playing fields	60.7	8	25.5	9
Public library	52.7	9	45.7	5
Community hall	53.2	10	11.1	10

These figures are the results of the survey carried out on the respondents in the study area. The rank of satisfaction normally indicates the level of perception of the facility fulfilling the needs of the respondents. The respondents of Shah Alam and Klang highly rated the health/medical facilities and education facilities although not in the same order yet the percentage of satisfied respondents is much higher than in Klang. This shows that there are more respondents with a higher level of satisfaction in Shah Alam than in Klang.

Table 4. T-test results of the significant difference of satisfaction towards some of the facilities in the study area.

Facilities	City	N	Mean	<i>t</i> -statistics	<i>p</i> -value
<i>Tadika</i>	Shah Alam	324	2.35	1.384	0.008*
(Kindergaten)	Klang	135	2.28		
Primary	Shah Alam	330	2.36	0.299	0.261
School	Klang	136	2.35		
Secondary	Shah Alam	324	4.15	1.208	0.015*
School	Klang	134	3.99		
Children	Shah Alam	328	3.67	5.914	0.000*
Playground	Klang	136	2.95		
Community	Shah Alam	335	3.48	9.855	0.000*
Hall	Klang	133	2.36		
<i>Surau</i> and	Shah Alam	302	2.35	3.301	0.000*
Mosque	Klang	113	2.15		

* Significant at 5 percent level

The *p*-value marked with the asterisk show that there is a significant satisfaction of that type of facility between the residents of the two cities.

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Vision Logic and Aesthetic Evolution

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Abstract

Visual logic is the most basic logic principle that human beings' aesthetic taste is based on. Through conducting search on aesthetic taste, we found out the common rule for aesthetic evolution, which is also an evolution process in a sense of meaning. Firstly, visual system apperceives aesthetic objects in a mode similar to computer searches. In the process of apperception, visual system is controlled by "collective unconsciousness" standard formed through the deposition of "collective" experience and by "individual unconsciousness" formed through the accumulation of "individual" experience. The brain clears up the messages through visual logic, and makes deduction, after which the brain could obtain accurate visual apperception. Under proper circumstances, aesthetic resonance is generated. Further, the aesthetic taste of the group could be sublimed, which in turn exerts impact on the "unconsciousness" aesthetic standard of individuals and collective groups. This is the basic way for the evolution of aesthetic taste and is the evolution logic which occurs momentarily.

Keywords: Visual logic, Aesthetic taste, Art logic

Mainly, the researches on visual logic are conducted for the sake of psychology and biology. Parts of physics and informatics are covered too. This paper is to illustrate the formation and evolution of aesthetic rules in the field of shaping art, which does not simply explain the evolution modes of aesthetic evaluation but aims at pointing out that artistic works creation should undertake the functional role to direct and promote aesthetic evolution.

Firstly, gratitude shall be given to the works of Francis Crick, *The Astonishing Hypothesis*. After reading this book, the contents of this paper were overthrown and revised when the composing of this paper was nearly completed. The experiments on visual illusion in large quantity described in session one of the book convince us that the saying "seeing is believing", which is commonly known as a truth, is so unreliable, which happens to be one of the main logic backgrounds and sources that this paper originally want to conduct researches on. After adjustment, the research is conducted on the basis of the following understandings on vision:

Apperception is not the true first hand material. Visual messages go through a large quantity of parallel processing which are related to nerve cells and are transferred to and are sensed by the brain apperception systems in a mode similar to "the winner is the king". Here parallel refers to that a large number of nerve cells work simultaneously rather than process information one by one in serial. Only by this way can it be guaranteed that all visual objects are "seen" at instantaneous state. The way that the apperception system senses the information is to sense simultaneously with different intensity. For example, when you are collecting information in a short time from pictures spread on the floor, the main elements that will influence your evaluation include "your concern", the position of the pictures, the number of similar pictures, memory, searching rules, and simple logic organization and detail filling necessary for making evaluation. Many pictures may not be explicitly sensed by you because of the aforesaid reasons. For apperception system, such circumstance will result in the situation where a large account of information is seen but is not sensed. Because the final evaluation must be completed by logic organization and detail filling, there is the possibility for incorrect apperception. A typical example is that visual apperception system takes initiative to fill the blind spots. That is to say that in apperception process, the subjective consciousness is not involved in behaviors, which is a process of true unconsciousness and is extremely similar to the processing mode of computer searching. To put it in another way, in this process, it is easy for inertial processing and falsity to occur, which controls visual logic thinking and further influences aesthetic taste.

Visual logic refers to the causal relationship and corresponding rules followed in the process of visual apperception. To make analysis on it and to make deduction, certain visual principles could be obtained, researches based on which exert great influence on shaping art and even visual aesthetic taste. Generally speaking, the sameness rate of aesthetic evaluation standards is determined by the similarity rate of visual experiences of the evaluation-makers, which covers geographical features and cultural background. At present, the popular view is that usually, different aesthetic main bodies tend to be the same in value direction and are slightly different from each other in details. It is obvious that such saying is not supported by sufficient evidence. Or we could say that such saying exists in practice and application process as a self-convinced point.

It is shown in a large number of researches that aesthetic taste standards of different regions, different peoples and different ages are not completely consistent with each other. The same as that many self-convicted concepts are finally easily overthrown by practices, the otherness of aesthetic taste is larger than we have imagined. From the perspective of vision, we could not recognize the decoration ways of peoples in remote areas. Even, we rebel at their tastes. Similarly, sometimes, the images that we do not appreciate are popular in other countries. There is a hypothesis question, which is if the otherness of visual experience on certain images is large enough, is it possible that their evaluation standards are completely different from or even are opposite to each other. Tim Burton applied a melody to describe the elimination of Martian (Note 1), which is at least understandable in art logic, which is to say that if this kind of otherness exists, what should be done is not to improve but to avoid. We believe that aesthetic taste is not transcendent and does not remain the same.

Then, how is aesthetic taste is generated?

As a corresponding mood generated by apperception, is aesthetic taste generated by unconscious instinct or does it follow certain causal rules? The research on visual logic well answers this question. It is composed of the following points:

1. The influence of prediction and hint on aesthetic instinct

Aesthetic sense is a kind of adapting degree. When the development of an issue complies with the thinking of the observers or with the prediction of the observers, the comfort sense of corresponding extent will generate. F.L.Pogson describes the sense of beauty in his brochure on time extension as follows, "The reason why hurried and discontinuous movements are not beautiful is that each of such movement is self-sufficient and they do not predict their following movements. The reason why curve is more beautiful than broken lines is that the curve changes its direction momentarily and each new direction is predicted by its previous direction" (Pogson, 2004). The prediction and hint in vision brings easy and joyous sense to aesthetic main bodies. Curve predicts certain track. Each dot on the line gives hint to the generation of the next dot, which complies with the thinking of observers, is easy, and could be controlled so as to generate the sense of beauty. The hints among dots on broken lines are uncertain. The appearance of many unpredictable direction conflicts with the thinking of observers and causes discomfort and nauseous feelings.

It could be seen that even the aesthetic instinct of original stage contains causal rules and follows certain visual logic rules. "The said instinct refers to rational experience. It puts us into the internal part of an object so as to comply with unique and inexpressible stuff of the object" (Pogson, 2004). The generation of original aesthetic taste is through the prediction capacity of aesthetic main body and the hints given by the objects. Connection and relation of the two are established so that different reactions in psychology and body are triggered. Artistic works make use of this kind of relations and apply clearing up, pruning, fixing and piling up to enhance the function of hints to realize the growth of the extent of sense of beauty.

2. Then influence of "collective unconsciousness" on aesthetic taste

The reason why usually people tend to be the same in aesthetic values is that human beings have similar civilian background and the aesthetic taste of various visions and touch and even the spirits accumulate to form a relationship where aesthetic body and its living circumstances mutually depend on each other, become accustomed to each other and recognize each other, which is a natural result of evolution. Because its contents could be found in the hearts of "all people" and have common characteristics, it is called "collective unconsciousness". The original aesthetic taste obtained from inheritance has certain regional and time characters. Due to long term deposition, within specific period, it controls aesthetic taste to the maximum and limits aesthetic evolution

As "collective group" of aesthetic main body, it could be less than "all people" and also could be more than "all people". In daily life, it is easy to understand the "collective unconsciousness" less than "all people". For example, the original aesthetic tastes of different peoples, phylum, regions, and systems have certain differences. To understand more than "all people", we need to take into account all conscious main bodies. For example, whether animals have aesthetic taste, if yes, to what extent is it consistent with human beings? Compared to human beings, it is usually believed that animals do not have aesthetic deduction capacity. However, we must admit that animals have certain visual taste and good image memory capacity. Because they live under similar environment to human beings, in many detailed aesthetic evaluation, they could form a wider "collective group" with human beings. "Collective unconsciousness" and "individual unconsciousness" influence "unconscious" aesthetic taste together. It needs to be supplemented that from the angle of art logic, usually, any item could become the main body of certain type if only they have different adapting and tastes.

3. The waking and memory of visual remaining image

From the perspective of psychology, aesthetic taste containing "individual unconsciousness" is represented in the accumulation and deposition of aesthetic individual's vision and psychological experience. A typical case is the paraphrase of Oedipus's complex made by Freud. However, in real life, such complex is not so obvious. There is a

more common and easier explanation, which is that the memory and wakening of visual remaining images have special connotation to aesthetic taste and control the corresponding aesthetic evaluation of individuals.

A metaphor for it is that usually it is easy for us to accept items with which we are familiar. There are two kinds of demonstrations for the said familiarity. The first is the memory of the known images. For example, a grown up will be deeply attracted by the images which are similar to the images that they cognized in their childhood. You may find that the opposite sex that you are obsessed with is familiar to you in certain angle, parts or gaseity. It could be used to explain the complex of missing hometowns. The same circumstance also occurs in our endurance extent on ugly items. Usually, we will find that due to the passing of time, some extremely ugly images will not be so difficult to endure after some periods. Even, we become infatuated with them.

The second is the wakening of visual remaining images. Many aesthetic images are more complicated in cognition than intuition. Usually, the wakening of visual remaining images could only be realized under certain proper circumstances and the wakening process requires the participation of logic deduction. We could say that the memory of visual remaining images and its wakening function on logic deduction accelerates aesthetic evolution. The aesthetic taste on abstract works are also based on this type of memory and logic wakening, which makes aesthetic evaluation on new works of famous painters easier than the works of unfamous works.

4. Aesthetic taste deduction, empathize, resonance and aesthetic sublimation

In the following part, we will analyze the aesthetic activities that we participate consciously. Firstly, let us analyze the empathize phenomenon in aesthetic taste. Different from the depth psychology, empathize in aesthetic taste only occurs on the observers (the aesthetic evaluation main bodies). However, it is recommended that creators of modern arts should take into account this aspect and apply it. It could belong to subjective empathize in creation. There are two types of empathizes of observers and there is one type of empathize in the creation of artistic works. Now, let us explain in detail the occurrence of the three types of empathizes.

The observers' feelings are transferred to the works, which usually occurs in movies and television series. For example, the audiences could easily think themselves as the default images when the movie or TV works are broadcasting. He (she) might imagine himself or herself to be she or he or he (she) is being hurt (or is committing crime). However, the function of such empathize narration far exceeds the function of visual logic. We determine to explain it by visual logic in visual aesthetic taste range. When we are appreciating a painting, we will unconsciously transfer our feelings to the objects of the painting. What is interesting is that such transfer does not only occur on human objects. It will make corresponding transformation according to the change of the painting's subject. The priority level order of such transformation is characters (including main characters, peoples, genders, ages, and body shapes), animals (their sizes, their positions on the painting and their relationship with human beings), plants, architectures (or ships, planes, and other man made objects. when many pieces appear at the same time, please refer to animal level), mountains and rocks (or sceneries that have detailed shapes in the vicinity) and distance sceneries. It could also occur in series sceneries that the feelings are transferred to a group of objects. When we appreciate the water fowls painted by Badashanren (Note 2), we will feel strong loneliness, which is particularly obvious when appreciating eastern painting artistic works, which is the aesthetic empathize, "audiences are the objects".

In western paintings, due to the influence of human thoughts, the artistic works usually adopt the third person visual observing method. There is no painter in the picture but the painter is also everywhere. The painter gazes at the contents of the painting at all times. Therefore, the aesthetic empathize occurs between observers and painters, which means "audiences are painters". For example, when we gaze at the large sized painting works of Anselm Kiefer (Note 3), we usually will feel inexplicable sense of inhibition. This kind of inhibition is absolutely not to empathize to certain wall of post but is brought by the entire dark climate. The one who truly feels this kind of climate is not others but the painter. Let us take a buoyant example. The empathize on Mona Lisa is not to transfer the feelings of Mona Lisa to the observers but inherits the feelings of Leonardo da Vinci and a typical attitude is the third person mood of "falling in love with Mona Lisa" (however, to tell the truth, to the author, the charm of Mona Lisa is not so big as advertised by the western media, or this might be caused by the difference between westerners and easterners in "collective unconsciousness"). It could be said that the artist transfer his or her feelings on the painted main body to the audiences and combine the audiences' feelings, and form the individual aesthetic taste on works.

For artistic logic, artistic creation process will also integrate creation empathize similar to Tongjia. Strictly speaking, such circumstance is not true feeling transfer. It is shown at artistic creation and through engrafting method and it enables the image of the painted main body exceeds its inherit image character and further "gives" this kind of feelings to the audiences. For vision, easy methods, such as to make slight change in partial shaping and bright and dark combining position, could bestow a drape newspaper with the quality sense of steel or cotton cloth. This kind of empathize usually is used to express the internal mood of the works and is the common method in artistic creation. The same handling is used in personification more. What is more, this kind of empathize is also applied in other artistic

creation fields, for example, “Troubled by the times—flowers bring tears; Dreading parting—birds startle the soul”(Note 4). The flowers and birds are bestowed with the feelings of human beings by way of empathize.

Similar to empathize, the resonance of artistic aesthetic taste also occurs in the aesthetic field where consciousness involves. As an important mark for the acceptance and entrance of artistic vision into climax stage, resonance follows closely after the occurrence of empathize and is the important moment for observers to release moods. At this stage, visual apperception system basically stops working. The brain is under artistic logic thinking working period. We say that at that time, the brain is working at high speed, ceaselessly analyzes the existing messages, deducts unknown rules (and imagine), and sends to the body various instructions (have various features, such as being cold or hot in hands and feet, flourishing, being dry in lips and being incoherent). At the same time, resonance could also be shown in feeling reaction among painters, aesthetic main bodies and various audiences. When individual feelings return to “collective feelings”, it is usually accompanied by the generation of aesthetic sublimation. After disposition, the aesthetic sublimation will generate new round of aesthetic common recognition. It will transform into “collective unconsciousness” of aesthetic taste and change radically the existing aesthetic standards and further realize the aesthetic evolution.

With the increase of intensity, resonance and aesthetic sublimation process will last for considerably long time, just as we usually say “circulating around the girder for three days” (Note 5). The common appreciating background, resonance and sublimation will draw nearer the evaluation of various aesthetic groups. The gradually frequent art exchanges of the world indicate the tendency of united aesthetic standards of the participating groups.

5. Aesthetic deduction—the requirement of logic evaluation on works creation

In the process of visual art creation, another point needs our attention, which is the requirement of logic evaluation on works creation. In another article, the author made the following analysis on the basic requirement on artistic creation. The basic requirement of artistic creation is to expand knowledge on aesthetic taste of human beings on the basis of existing aesthetic taste and to guide the responsibilities of evolution. To put it into other words, as the aim of basic researches, artistic creation (note: it is not the artistic creation for application) (Note 6) is to constantly make innovations. Similarly, the said artistic innovation does not mean that the artists talk to themselves. This kind of innovation must be constructed on the basis of visual logic and must be consistent with aesthetic common recognition (“unconscious” aesthetic taste). It uses the sensitivity (Note 7) formed through long term accumulation (“individual unconsciousness” aesthetic taste) to find the truth different from experiences. When certain amount of unknown messages are added into visual apperception system, the artists must search for rational explanations through artistic logic analysis and practical methods. Here, it is mostly shown by the tie-in of unknown messages and the existing original aesthetic tastes (this is also the hardest stage of artistic innovation. Artists need to make lots of practices. Like the tie-in of two lines, they not only should do researches on unknown messages, but also should do researches and adjust the original “unconsciousness” aesthetic taste. It is explained in the previous part that no matter what kind of “unconsciousness” it is, individual or collective group, it is not that there is no rule to follow. For a mature artist, a majority of people who do not receive art education could fully understand and skillfully apply it. The extended use of this noun is to explain the needs of hierarchy, which is the core point of this paper). Once the possibility of tie-in is found, artists will be on the wires. Here, it could be explained as the finding of artistic inspirational sense or sudden realization, which is a concept in artistic logic. In the operation process of tie-in, consciousness needs to conduct a new round of message conclusion, sorting and setting up searching rules, which are done by the brains. The subjective consciousness just sends out the concluded instructions. Because the tie-in of the new and old messages could not be completed without logic organizations, usually it needs consciousness to fill in. Therefore, subjective consciousness needs to resolve the filling in at this stage. It is reflected in external behaviors as the artistic expression and artistic creation process that we are yearning for. For the new visual aesthetic taste of improved artistic works creation, it raises aesthetic quality.

When the aforementioned works are presented to common audiences, it complies with the supreme principle of artistic creation, which is “comply with but beyond our sense”. Under the guiding of artistic works, the audiences upgrade their aesthetic tastes through artistic logic thinking. Hence, when recognizing the works, the audiences also recognize their self-accepting and understanding capacity. Because the audiences have explicit sense on the upgrading of their aesthetic character, they could have academic resonance with creators, which is the value of the artistic creations.

Therefore, we obtain a full picture for the process of aesthetic evolution: visual system senses the aesthetic objects in a way similar to computer searching. In the process of apperception, visual system is controlled by “collective unconsciousness” standards formed through the deposition of “collective” experiences and by “individual unconsciousness” formed through the accumulation of “individual” experiences. The brain clears up the messages through visual logic, and makes deduction, after which the brain could obtain accurate visual apperception. Under proper circumstances, the aesthetic resonance is generated. Further, the aesthetic tastes of the group could be sublimed, which in turn exerts impact on the “unconscious” aesthetic standard of individuals and collective groups. This is the

basic way for the evolution of aesthetic taste and is an evolution logic which occurs momentarily. No matter it is “consciousness” or “unconsciousness”, they both comply with the logic rules of the nature and is the inevitable result of natural evolution.

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Notes

Note 1. Movie, *Mars Attacks*, directed by Tim Burton and produced by Warner Brothers in 1996

Note 2. Please refer to the flower and birds paintings of Badashanren. The true name of Badashanren is Zhu Long. He was from Nanchang, Jiangxi and lived at the end of Ming dynasty and at the beginning of Qing dynasty. He is the ninth grandson of Zhu Quan, the Xian King of Ming Dynasty. He is one of the most famous painters of China and is the head of the “Four Monks”, painting field at the beginning of Qing dynasty. His works usually apply symbolizing to express moods and are full of contumacy.

Note 3. Anselm Kiefer, a German famous painter of the new expressionism.

Note 4. Du Fu (Tang) *Spring Perspective*: The nations has fallen, the land endures: Spring tree and grasses flourish in the town. Troubled by the times—flowers bring tears; Dreading parting—birds startle the soul. With turmoil of battle three months on end. A letter from home is worth a fortune in gold. Scratching these white locks makes them thinner; As it is, they can barely hold a pin.

Note 5. Chinese idiom. The aftersound moves around the girder for three days’ means that the music is so beautiful that in the three days after hearing, you will feel the rhythm is circling in your room.

Note 6. Please refer to the works of the author *The Art Branches of Ultra-design Era and Decoration*. Beijing, the first edition, 2007, p.130

Note 7. The sensitivity refers to the acuity extent of vision observation. It is closely related to visual logic. The vision sensitivity difference of two persons is caused by inheritance and individual unconsciousness. The speed of feeling is due to the memory and wakening of visual remaining images, which is similar to the working ways of immune systems in biology. The immunity means that a person has more antibodies than common people. By this way, when attacked by the pathogen, he or she could find antibodies quicker, make duplication timely and organize to defend his or her body, while for common people, their antibodies are obtained through injection or the remaining antibodies obtained from the previous disease. If this concept is used on the researches on visual sensitivity, the injection should be professional training and education while the remaining antibodies are the same as the memory and wakening of visual incomplete images. Inherently is inborn collective unconsciousness and is the sum of aesthetic evaluation formed in long term deposition and remaining images.



Revelation of Three Periods of Japan Economic Development on the Economic Development of China

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Abstract

For the development stage, the actuality of China economy is very similar to the initial stage of 1970s in Japan, so we can use some feasible experiences to solve economic problems by Japan at the beginning of 1970s. The research to the foam economy in the middle and late stage of 1980s in Japan induces the consideration whether China would follow the same old disastrous road of Japan in 1980s. After that, from the long term depression of Japan in 1990s, we should exactly treat the China depression theory which has been occurred. Reviewing the course from the boom at the beginning of 1970s to the formation and break of foam in the middle and late of 1980s and to the long term depression in 1990s of economic development experienced by Japan, we can get some revelations about many aspects such as macro-economic control and financial security.

Keywords: Similarity, Foam economy, Depression, Macro-economic control

At present, many people think that the foam economy has occurred in China, and it is very similar to Japan's foam economy in 1980s, and the potential information of this adjustment think that if China doesn't prevent the occurrence of foam, the long term depression like Japan's will occur again. However, through the analysis of three periods with characters in the economic development of Japan, we will find that, first, the actuality of China economy at present is very different to that of Japan's middle and late of 1980s and the difference is obviously comparable, contrarily, the present economic situation of China more likes Japan's economic situation at the beginning of 1970s, second, because of the difference of development stage and macro control policy, China is difficult to follow the same old disastrous road in 1980s, third, though the discussion about China economic depression in the present period can be regarded as warning, but it is too early as a whole. Finally, through the track from boom to foam to depression that Japan economy experienced, we can get some revelations and considerations, such as the lesson of macro-economic control, the prevention of financial crisis and some active opinions we should have for some present problems.

1. Japan's economy at the beginning of 1970s which is similar to the actuality of China economy deserve us to refer and use for reference

1.1 The actuality of China economy is more similar to Japan's economy at the beginning of 1970s

First, undeniably, the present China economy is little similar to Japan's foam economy in the middle and post stages of 1980s. For example, apparently, the macro economy develops well, and the investment and export with high speed growth become into two drives for the economic growth, and the foreign exchange repertory increases very quickly, and the proportion of the usual account surplus is on the higher level, and the exchange rate increases in value, and the prices of many assets such as realty and stock rocket. But through the comparison of key development stages, more differences are embodied. Japan had entered into the post-industrialization period then, but China is still in the middle stage of industrialization at present, and the extended country market has not been completely started, and large differences still exist in the stage of economic growth and industrial structure. As viewed from development stage and macro economic situation, the actuality of China economy is more similar to Japan's economy at the beginning of 1970s, and the similarities are mainly embodied in following aspects.

1.1.1 The macro economy gross

Since 1955 to 1972, Japan had kept the growth with double-digit high speed, and the number is very similar to China. As viewed from the position of economic gross, Japan completed the task to pursue Europe and US in 1968, and at the

beginning of 1970s, Japan's absolute value of GDP was at the third position in the world, which was lower than US and Former Soviet Union. And China is at the fourth position now, and it was at the fourth position with German together in 2007, which are very similar.

1.1.2 International environment

(1) Oil markup. The first oil crisis happened in 1973, and the oil price appreciated from 2.5 dollar per barrel to 10 dollar per barrel, and the markup was fourfold. But now, the trend that oil prices creep higher is upon the table, and the oil prices even exceed 100 dollar per barrel. All oils needed by Japan depend on import, and about 50% oils in China also depend on import.

(2) Exchange appreciation under exterior pressures. In August of 1971, Nixon who was the president of US suddenly declared that dollar broken away gold and required Japan and western countries implemented revaluation, which induce the Bretton Woods system blew up (Erenow, Japan implemented fixed exchange rates all along). Japan had to declare the Japanese Yen increased in value from 360 Japanese Yen to 308 Japanese Yen, and the appreciation extent was 14%. For Japan, that was the first appreciation under the force of US, and in September of 1985, the second appreciation was in "the Plaza Agreement". Through China claims independent RMB exchange rate reform, but the threatening factor from US and western countries are should not been excluded completely.

(3) The repertory of foreign exchange. At the beginning of 1970s, much favorable balances occurred in Japan's trades to US, and the trade friction of textile happened, and the favorable balances made Japan's foreign exchange repertory hoik from 4.4 billion dollar in 1970 to 15.4 billion dollar in 1971, and it increased fourfold in one year, and the situation of Japan is very similar to the current situation of China.

1.1.3 Domestic asset price and inflation

(1) The sharp rise of asset price in Japan then is very similar to the current situation of China. To eliminate the negative influences brought by the appreciation of Japanese Yen, the Japan administration adopted the policy to extend interior demands, and fully develop "the alteration plan of Japanese islands". Under the agitation of the alteration plan, from 1972 to 1974, the land price raised 50%. The tide of island alteration is little like with current blind development of China. Not only the land price, but the stock market was also ascending, for example, the Topix index was 148.35 point in 1970, but in 1971, it was 199.45 point and it rose to 401.7 point in 1972, and in two years, the index rose 1.7 times.

(2) At the beginning of 1970s, serious inflation occurred in Japan. The inflation of Japan then mainly rooted in the oil markup which drove domestic markup, and the international oil price was quickly conducted to the domestic market. The index of CPI was 4.9 in 1972, and it was 11.7 in 1973, and it was 23.2 in 1974, until 1978, it dropped to the normal level of about 4%. That was very similar to current China. The markup of domestic price in China mainly rooted in the rises of international energy sources and raw and processed materials. When the prices of assets such as real estate and stock rose, the labor price rose, then the consumable price especially the food price would also rose, and if the price can not be controlled well, the rise of food price will conduct conversely quickly, and the structured inflation will evolve into malignant inflation.

1.1.4 Other situations of social development

Just for other problems of social development except for the economy, the first problem is the serious social effects of pollution. Japan pursued growth with high speed for a long time, but as a result, the destruction of environment and the social effects of pollution became more and more serious up to the occurrence of world-shaking "four lawsuits of social pollution" at the beginning of 1970s. The current situation of China doesn't allow optimism, and it is even worse than Japan's situation then. Many local governments have encountered the difficulty to give attention to economic growth and environmental protection, and the social construction with resource saving and good environment needs much endeavors. The second problem is the population old age. Japan was in the first stage of social old age then, and China also face the problem of population old age, and the problem how to avoid and possibly reduce the social insurance and the low saving rate which can influence the economic growth brought by the society of population old age deserves use to think about.

1.2 *The Japan's economy at the beginning of 1970s can be used as references for the current economic development of China*

Different economic development stages should adopt different economic policies, and the results will be different. Now that the current economic situation of China is more similar to Japan at the beginning of 1970s, so we should use some experiences and lessons of Japan at the beginning of 1970s for references. Summarizing a series of problems such as oil crisis, inflation, and problems in the industrial structure adjustment and the development of economy and society of Japan at the beginning of 1970s, we can get three following revelations.

1.2.1 Strengthening the macro control and exactly establishing policies to solve the crisis

Japan's inflation at the beginning of 1970s was quite serious, and many affairs to rob commodities happened because of

the rise of price. Aiming at very serious inflation, the Japan government rapidly adopted the countermeasure of deflation, and the central bank of Japan continually enhance the interest rate in April, May and July of 1973 with 0.5% every time until the interest rate was enhanced to 7%. The inflation was depressed in 1978 finally. Japanese economist Ryutaro Komiya pointed out that the basic experience that Japan could walk out from the crisis was “the money supply policy should be established by the stability of price which was the first factor should be considered” (Che, 2007). That offers revelation for China to solve the inflation at present, i.e. the implementation of money policy should take the price stabilization as the first objective.

The following was the oil crisis, and the whole Japan including policy authorities and enterprises produced a common understanding, i.e. “the time with infinite supply of resource has ended”. The future development should change the growth mode, i.e. from the growth of quantity to the growth of quality. At the same time, the government and enterprise achieved common understanding, and to solve the oil crisis, the government put forward the new energy source development research and the establishment of energy saving measures, and the enterprises universally adopted the mode of “downsizing operation” to reduce the production line possibly through reducing employees and superfluous equipments. Comparing with hard struggle of Europe and US with strong economy after oil crisis, Japan successfully passed the transition and entered into 1980s, which was closely linked with exact decisions of the ministration and the brave innovation of enterprises. Under the background of global oil markup, China offer allowances for oil enterprise, try to restrain the rise of oil price in the domestic market, and the aim is to reduce the more inflation induced by the rise of oil price. But the trend of global marketization is necessary, and the long-term government intervention would not exist, so how to solve the crisis and how to synchronize the world must be faced by Chinese enterprises especially the enterprises regrouped which are encouraged to enter into world list, so we can use Japan’s initial experiences for references when the government and enterprises face energy sources crisis and realize policies.

1.2.2 Accelerating the adjustment of industrial structure and perfecting the economic law system

This stage faced many problems which are mainly embodied in a series of energy and economic problems brought by the oil crisis, Japan economy begun to accelerate the adjustment of industrial structure. Wash out the industry with high energy consumption, change the industry with energy denseness and make the industrial structure transform from past “heavy, deep, long and big” to “light, think, short and small”, fully develop the third industry, and realize the soft industrial structure with servicing and high additive values. The updating of China industrial structure faces the obstacles of system, policy and repertory structure all along, and it is the difficulty faced by China industrial development to how to accelerate the industrial update and optimize the industrial structure, and that needs the government exactly leads the development, and the enterprises innovates bravely.

Japan is one of countries with the most mature economic law system. The character of economic law is to continually emend laws with the change of economic situation. In this stage, the most obvious establishment and edit of economic laws are about the environmental laws. In the process of “four lawsuits of social pollution”, the public in various regions developed the anti-pollution activities and flinty social problems occurred, and under that situation, the government had to decide to father the pollution and protect the ecological environment. Under common struggle of country, enterprise and government, Japan’s environmental problems were basically solved and recognized by the international society at the beginning of 1980s. At present, China has achieved delightful advancement to perfect economic law system, for example, the “Real Right Law of the People’s Republic of China” issued on October 1 of last year and the “Labor Contract Law of the People’s Republic of China” executed in this year, but for the environment protection, especially the law construction of environment protection, we should make larger efforts.

1.2.3 Changing the mode of growth and development, and actualizing the economic policies

At the beginning of 1970s, the economic growth mode of Japan had gradually transformed from extensive mode to intensive mode, and the economic character of “large consumption and large investment” had been changed, and the transformation of growth mode and economic development had been basically completed at the middle stage of 1980s.

China also put forward similar policies and concepts with Japan’s at the beginning of 1970s, for example, the transformation of development mode, “energy saving and pollutant reduction”, “green GDP”, and the establishment of circle economy, and these policies are very similar to Japan whether for policies or for the backgrounds of theses policies. For the future, we should actualize above exact policies and strategic ideas in deed and better realize them.

2. Whether China will follow Japan’s same old disastrous road of 1980s

2.1 Japan’s foam economy at the middle and post of 1980s

Japan’s foam economy formed at the middle and post of 1980s, and it was the most intense stage of the foam economy from 1987 to 1989. With the subscription of “The Plaza Agreement” in 1985, Japanese Yen begun to increase in value very quickly. In 1988, the exchange rate of Japanese Yen rose to 1: 120 for dollar, and comparing with Japanese Yen under the fixed exchange rate system in 1971, it increased in value for two times. The result induced the export commodities of Japan rose in price, and weakened Japan’s competition force in the global trade market, but a series of

financial measures adopted by the government made the domestic demands quickly increase. The formation of Japan's economic foam was that "the land price and the stock price drive each other and rise circularly. The land price rises, and the asset values of enterprise and family rise with the rise of the stock prices of enterprises, then the land guarantee value rises, so the banks will acquire more loans. The anticipations of enterprise profit and economic growth rise, the essential interest rate and risk discount decline, and the investment passions of resident consumption, realty investment and enterprise equipment run up, and the asset price and entity economy rise mutually, then the large form forms." In 1990, with the first breaking of Japan's stock market, Japan's realty foam was dashed to the ground. And Japan's economy entered into the long-term depression.

2.2 China will not follow Japan's same old disastrous road in 1980s

Just as what most people worry about, some phenomena such as exchange rate appreciation, the price rise of realty and stock exist at present are very similar to Japan's in 1980s, so many people begun to worry about China economy, i.e. whether China will follow Japan's same old disastrous road, and the author think we can give the negative answer. The reasons mainly include two aspects.

The first aspect is that the economy with foams is unequal to the foam economy. Most economists thinks that the economic foams means the unbalance phenomena often occurred in the economic development, and its root is the contradiction of total demand and supply in the society, and the fluctuation with the fluctuation of commercial cycle. When the economic foam develops to certain degree, it will form the foam economy, but it is a process from quantitative change to qualitative change. The economic foam is unequal to the foam economy. The foam economy specially means the phenomena that induce the serious fluctuation of market price because of gamble activities (Zhou, 2007). Though the foams occurred in some localities of China economy or on some layers are truths, but it is not exact and objective to confirm the occurrence of foam economy. For the growth potential, the potential of Japan economic growth begun to drop and the labor increase rate also turned from positive growth to negative growth in 1980s. Before that, the shift of labor from country to city supported the high increase of economy, and the end of labor force transfer in the foam time induced the parabola of growth quickly went to drop. At the opposition, the economic growth potential of China is still strong, and we can feel hearty consumptions and enough growth potential when we walk on the road of big city in China. The supply of rural labor force in China is still abundant, and the technical level of China enterprise is far lower than the world level, and the space of technical advancement is still large.

The second aspect is that the macro control policies are completely different. Japan administration made three serious policy errors at least at the middle of 1980s, at the same time, the errors of these policies were thought as the essential reason to induce Japan's depression by most scholars, and the problems such as the revaluation and the formation of foam that the policies wanted to solve were only the idea of the problem. The mistake of these three macro policies was mainly embodied in following aspects. The mistake in the exchange rate policy made Japanese Yen rise with large extents, and in the process of foam formation, the loose monetary policy was falsely implemented, and the over strict deflation money policy was adopted in the extrusion of foams. When the similar economic situation occurs, the policies of China government are more stable. First, when RMB faced the pressure of appreciation, the central bank of China made RMB slowly rise and tried to reduce the disadvantageous impacts to domestic industries. Second, when both the stock price and the house price rose, the central bank of China still persisted in stable money policy and put forward deflation money policy in this year. Except for controlling the house market and the stock market by the money policy, we also adopt other measures such as taxation and administration to avoid the economic fluctuation brought by deflation money policy.

3. Japan's long-term depression in 1990s and the depression economics of China

3.1 Japan's long-term depression and the forming reason

Since the beginning of 1990s, with the breaking of the foam economy, Japan's economy got in serious depression. Individual consumption had no force to rally, and the financial reform got severe illness, and the economic growth stagnated, and the economic resurgence had a long time to go. Some experts thought Japan economy had "Japan disease" since 1990s comparing with Japan's economy with energies in 1960s and 1970s. The depression was mainly embodied in six aspects including that the consumption demand could not recover after a setback, the deflation was increasingly serious, and the unemployment rate was on the high level all long, the bad creditor's rights accumulated as a hill, the national finance was heavily in debt, and the macro control was inefficient.

3.2 It is too early to discuss the depression economics of China in the current stage

Some people compared the economic actuality of China with the situation before the big depression of US in 1929, and because both are very similar, so they got the conclusion that China would walk the old road of US in 1929, and the most representative theory was Krassimir petrov's economic depression of China, "I trust the foam of China will be broken at some moment from 2008 to 2009 (Krassimir Petrov, 2005)." Petrov's theory was based on the business cycle theory of Austria School, and the core of the theory was the credit boom of inflation. The theory thought that over

investment must induce the credit boom of inflation, and the foam breaking certainly occurs after the credit boom of inflation. In fact, the instances with over investment exist in China, but the over-heat investment is not foam, and it is only the reason to induce the foam. As viewed from the policy, the government has realized the important credit, and the deflation money policies in 2008 and various measures in 2007 were to directly or indirectly restrain and reduce the credit.

Another fear about China depression is based on the comparison of Japan economy, i.e. if the foam economy occurs in China, the long-term depression like Japan will happen. In fact, the fear is unnecessary. First, the situation of China is very different to Japan's, and the same consequence in the late of 1980s and the beginning of 1990s won't happen. Second, the foam economy unnecessarily induces long-term depression. The breaking of foam is one reason to induce long-term depression of Japan, or it is only a fuse, and the deep reason that Japan got in the long-term depression is its own structured contradiction. We should not equate the foam economy with long-term depression, the relationship existed in them, but they had no necessary relationship.

Finally, for the development potential and space, China is in the middle stage of industrialization, 7%-8% or more growth rate may be kept to first "25 years" in the 21st century, i.e. the high growth rate of economy can be sustained for 15 to 20 years. So it is too early to talk about the depression.

4. Some revelations and considerations

The several stages with obvious characters from the beginning of 1970s to the late of 1990s offer references and revelations for the economic development of China. From boom to the forming of foam, the breaking and the depression, the road Japan walked is like the theory of economic cycle, i.e. boom-decline-depression, and the economic situation in the stage can offer some revelations and considerations in the boom stage of China.

4.1 Actively treating the problems of appreciation and fluidity

For the appreciation of RMB, we can combine the situation of Japan after the Plaza Agreement to discuss the appreciation. The appreciation of Japanese Yen at the middle and late of 1980s induced and strengthened the stock market which was the largest bull market in 1970s and 1980s. Japan's economic growth with high speed could not completely deny the historical function of money appreciation, and the serious shock of "The Plaza Agreement" was the undeniable fact for the export industry of Japan, but the fortune effect brought by the appreciation of Japanese Yen to Japan induced Japan became into the financial empire, the largest trading country, the largest investment country, the largest creditor's rights country at the late of 1980s. The revolution of exchange rate offered the capital headspring for the special bull market. The process of the money appreciation was the process of common development for the house property and stock market of Japan, and its extent and energy were very rare in the economic development of the world. The essentials reason of Japan economy and financial crisis were not in the exchange rate appreciation, and it was the false money policy in the process of exchange rate appreciation to induce the breaking of asset foam.

The problem of the fluidity surplus is not only the pressure but the opportunity for the economic development of China. The negative influences of fluidity to economy are obvious, but we must pay attention to other aspects of fluidity influencing the economy. First, for China with deficient capital consciousness, it is necessary to establish capital consciousness and investment consciousness in the process of economic development. Second, surplus fluidity and surplus capital are very rare opportunities for China capital market especially for the direct financing market. Third, the surplus fluidity drives the rise of asset price. The bull market with capital drive is propitious to come into the market for the stated and civilian enterprises, reduce the pressure of inflation, and acquire precious time for the slow appreciation of RMB and the stable growth of China economy with high speed. Finally, the surplus fluidity promotes the diversification of the business of China bank industry and the diversification of the financial market (Jiang, 2007).

4.2 Clearly recognizing the economic actuality and avoiding entering into the financial difficult cycle

Through the 29 years' large depression of US and Japan's long-term depression in 1990s, we can see a process. After the entity economy quickly develop to certain level, the financial inflation occurs, and the financial asset crisis induces the fluidity crisis and the credit deflation, and the entity economy declines, which can be called as the financial difficult cycle (Zhao, 2007).

As a large economic entity, China's economic development degree comes to light in the world, and the imperfection of financial system and the truth that the financial system is in the stage of transformation make us realize the actuality of financial inflation and consider whether the possibility of financial asset crisis exists. Three largest Chinese commercial banks have entered into the strongest bank list in the world, and we need more calmness and wariness to face the situation. The development or the growth of the financial market of China is not mature, and the ability of financial institutions facing the crisis is not strong, and the confusion of current financial market has produced the sign of financial inflation, and we should notice that once the economy enters into the financial inflation estate, the central bank must interdict the alternation system of bank credit and financial asset inflation to reduce the extent and speed of future price fall of financial assets and the impact to bank credit when the future financial asset inflation breaks, so the credit

deflation won't occur because the bank credits are transformed into non-performing loans. Japan's long-term depression in 1990s had close relationship with large of non-performing loan after the foam broken. To strengthen the risk management of China realty loan is the important measure to prevent the occurrences of the economic foam and the crisis of the financial assets.

4.3 The government macro control should assimilate past lessons and strengthen the time efficiency of macro control

The government should cautiously use the money policy and financial policy when facing the pressure of appreciation, the inflation and the asset inflation. Japan's money economy was too loose in the forming process of the foam, and it was too strict in the extrusion of the foam, which could not reduce but prick up the foam economy. China should assimilate the lesson of Japan and especially reduce the destroying influence of the foam economy when extruding several foams.

At the same time, for the tight money policy implemented in this year, though the government advocates it early, but it still fears for the policy. The worry is not in the frequency and intensity of the implementation, but in the validity of the money policy. In fact, the tight policy has come into force early, and in 2007, the control frequency and intensity of the money policy were infrequent, and the inflation and fluidity still exist and even be more and more serious. If the validity and the time efficiency the money policy of 2008 are not good, or the useless of the money policy still exists, the sensitive degree of control will incline to nothing for the public and enterprises, which is not the result what we want to see. (The data in the article are from the Japan Economy Database of Chinese Academy of Social Sciences and Academician and the China Statistical Yearbook).

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Corporate Space for Social Sciences through Corporate Social Responsibility Initiatives Rising Trend of Corporate Social Responsibility Is a Boom for Asia's Social Sciences from Theory and Practice Perspective

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Abstract

The Corporate Social Responsibility (CSR) is one of the emerging areas of industry and corporate arena. The CSR movement is becoming not only a mere social responsible activity but also an attractive and challenging profession. There are two major dimensions in corporate social responsibility. They are; 1) theory, 2) practice. Many management institutions especially business schools made CSR as an optional subject in their curriculum. This paper provides information and emerging trends of Corporate Social Responsibility from Asia's social sciences theory and practice perspective. How management institutions (especially business schools) and multinational companies are promoting and mandating such initiatives also discussed in this paper. The CSR concept was started in 20th century in Europe and it was implemented based on purely charity and fashion. End of the 20 the century after entering of new millennium the concept totally changed in all over the world. Developing countries like India also becoming a good host for CSR initiatives. This paper also gives the information about how CSR is becoming profession by introducing curriculum in management institutions and business schools. The CSR in the context of International, Asia and Country level perspectives also presented. The whole paper discussed in different dimensions of CSR like profession, management education, Research etc...

Keywords: Corporate Social Responsibility, Key Dimensions, Social Responsibility, Millennium Development Goals, CSR, Corporatization, Emergence

1. The concept of CSR

The concept of Corporate Social Responsibility emerged in early years of 20th century in European countries. After few changes taken place in post industrial revolution and electronic era the CSR came in lime line¹. Earlier responsibility purely based on charity concept and fashion only. There was no element of responsibility in their social initiatives. There was no mandatory in companies' financial plan. In a year various occasions only companies used to take up the social initiatives on nominal basis. After the change of face in countries financial situations all companies sensitized

about the corporate social responsibility. In the United States the CSR concept gradually developed as a mandatory in all industries. The US government also provided few encouragements like tax exemption, giving recognition to trusts and charities to promote the CSR concept. After 1950 the total world equations have changed and few countries divided based on US & USSR. The developing and third world countries were needed support from bipolar world. The CSR quickly developed into a more comprehensive list of actions and responsibilities and in the end to a complete management framework on how to manage the expectations of stakeholder, change and manage the way you do business more responsibly and take care of your environmental impacts².

1.1 What is CSR?

Corporate social responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large³. Corporate Social Responsibility (CSR) is a concept whereby organizations consider the interests of society by taking responsibility for the impact of their activities on customers, employees, shareholders, communities and the environment in all aspects of their operations. This obligation is seen to extend beyond the statutory obligation to comply with legislation and sees organizations voluntarily taking further steps to improve the quality of life for employees and their families as well as for the local community and society at large. It is about how companies conduct their business in a way that is ethical⁴. This means taking account of their impact socially, environmentally, economically and in terms of humanity.

1.1.1 Need of CSR

Corporate Social Responsibility (CSR) is a relatively the 20th century phenomenon both in social development and much more so in corporate business culture. In many ways, CSR advances as counterculture to the long established idea of private and free enterprise. Free enterprise was supposed to be very private, to not have to answer to anyone about its business practices and to not be accountable to society except for fiscal matters. The only accountability was to private shareholders or institutional investors in the world's financial markets. Nevertheless, the increasingly negative and very pervasive impact of global corporations in all aspects of social life and in the environment has been the catalyst in the emergence of a diversity of stakeholders demanding accountability about the impact of corporate activity in the life of the planet as a whole⁵.

In true democracy, companies cannot ignore societies in any of the social spheres where they interact. This is because they are formed and managed by individual members of society, because their accumulation of capital, is only possible due to the existence of these societies, which constitute their markets, and, especially, because their activities have a tridimensional impact on societies and their habitat. The most distinctive feature of the concept of CSR, that every private enterprise has a legitimate diversity of stakeholders, is in stark contrast with the traditional private sector position of considering shareholders their only stakeholders.

In CSR, the stakeholders represent the different interests groups of society where corporations operate, be they workers, consumers, social justice NGOs, environmentalists, and indigenous groups, all with a legitimate right to demand socially responsible corporate behavior. Therefore, the stakeholders are all the members belonging to the corporation's social environs, which contribute to, or are encroached by, the corporation's activity. In this way, Corporate Social Responsibility is the inherent obligation of each business entity to account for the way its activity impacts the economic, social and environmental dimensions of its environs and to ensure that this impact generates equitable and sustainable benefits -and no harm- to all involved Stakeholders.

1.1.2 Approaches to CSR

An approach for CSR that is becoming more widely accepted is community-based development projects, such as the international organizations' involvement. These organizations have set up many livelihood centers to help educate the community's children, as well as develop new skills for the adults. And other international funding organizations which are supported by Multi National Companies (MNC) and other industries are providing support to establishment of education facilities, as well as HIV/AIDS education programs. The majority of these CSR projects are established in Asia and Africa. A more common approach of CSR is through the giving of aid to local organizations and poor communities in developing countries. Some organizations do not like this approach as it does not help build on the skills of the local people, whereas community-based development generally leads to more sustainable development.

1.1.3 Various definitions of CSR

The Corporate Social Responsibility (CSR) is an upcoming trend in corporate arena. There is as yet, no widely agreed definition of CSR. In normal context CSR is a company's commitment to operating in an economically, socially and environmentally sustainable manner whilst balancing the interests of stakeholders and targeted people. Even though there is no universally accepted definition of CSR but few companies given appropriate definitions they are; corporate social responsibility is undertaking the role of "corporate citizenship" and ensuring the business values and behavior is

aligned to balance between improving and developing the wealth of the business, with the intention to improve society, people and the planet.⁶

Corporate social responsibility is the commitment of businesses to contribute to sustainable economic development by working with employees, their families, the local community and society at large to improve their lives in ways that are good for business and for development.⁷

There is one and only one social responsibility of business-to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud. Corporate Responsibility is about ensuring that organizations manage their businesses to make a positive impact on society and the environment whilst maximizing value for their shareholders⁸.

2. Difference between Social Responsibility and Corporate Social Responsibility

There is no much difference in social responsibility and corporate social responsibility. The primary objective of these two is same i.e. helping the society in different modes. The term social responsibility will applicable to individuals (citizens). As a citizen they have to perform few responsibilities be as an ideal citizen. That is also comes under responsibility. The same thing comes into the company context its become corporate social responsibility. The way of serving the community helping the poor is different from each other. CSR since then has grown continuously into a-must-have for organizations around the globe. No matter whether they have a complete management framework for CSR in place or a policy of some kind, CSR is different from one company to the other and needs to be a tailored approach to managing the responsibility within our society of this particular organization. There are obviously good and bad examples in the world but overall one can say that CSR been promoting responsible social practice in the world. And this is a good thing.

2.1 CSR: International Context

In the post globalization scenario the CSR concept has been changed and emerged rapidly in all over the world. The bilateral and multilateral financial institutions like World Bank, Asian Development Bank, International Monetary Fund, DFID and UNICEF etc... are entered into developing countries to initiate the social development activities. These institutions are providing the financial support through grants and loans basis. Simultaneously foreign Multi National Companies (MNC) are also coming forward to set up their industries and CSR units. The term CSR was in common use in the early 1970s (although seldom abbreviated), and the term "stakeholders" was used to describe corporate owners beyond shareholders at least as long ago as 1989⁹. More generally, the social/environmental report is a second-phase report and the third phase of CSR reports is by far the most interesting for reasons that we shall suggest. The first phase of CSR reporting was composed of advertisements and annual-report sections in the 1970s and 1980s that paid homage to the environment the way a person might throw a coin into a fountain along with a wish. The reports were not linked to corporate performance¹⁰.

2.1.1 Asian Context

Asia is one of the big pockets to do potential social developmental activities through Corporate Social Responsibility activities. According to CSR Asia as the leading provider of information, training, research and consultancy services on sustainable business practices in Asia, few key things have to address still. They are; Potential promotion of CSR in the Asia Pacific Region on development issue specific. Lack of guidance and support services CSR activities are not taking place satisfactorily. The major drawback in Asia's CSR is there is no network kind of initiative in the region. Due to this deficiency there is much duplication in many CSR initiatives in Asia region. CSR in Asian perspective is not professional due to lack coordination between the companies. The business competition of two companies is showing impact on their CSR units. In the Asia-Pacific context, it would be wrong to assume that all CSR practices are developed than in the West. Nevertheless at CSR Asia we have identified a significant need for knowledge and skills development and broader capacity building. However, we can believe the emphasis at present has to be on the need for more knowledge, education and training in the region. Starting with an awareness of the issues, moving on to developing strategies for stakeholder dialogue and then implementing and evaluating CSR initiatives are all areas in need of much more attention. Clarity regarding the costs and benefits of CSR is clearly needed.

2.1.2 Indian Context

CSR is a globally applicable concept but its interpretation will vary from country to country, industry to industry and company to company because of differing local situations and differing demands of stakeholders in different locations and industries. It is clear that for many people CSR is very much part of a Western agenda item. In the post liberalization scenario India is emerging as an economic super power in the third world. After the ending of 10th five year plan the growth rate is 8.5 to 9 percent¹¹. This is a significant change in country's economic scenario. Many companies have started their operations from India. All top 100¹² companies have set up their units. Simultaneously their CSR initiatives also have been taken up. In the recent trend top 10 public sector undertakings also started their CSR activities in the country. This is an indication of strengthening of PSUs in post globalization. To learn the full

impact of the standards in the CSR Frame of Reference for India based companies in general, it was necessary to look at companies of different sizes, business sectors and with different type of activities. These companies either had direct CSR activities in India, by means of a subsidiary, joint venture or partner, or had an indirect link with India by means of a supply chain or investments. The group of 40 companies operated in different business sectors, among others agriculture, energy, ICT, automobile industry, tourism, financial services, leather and chemicals. These companies were asked about their CSR performance with respect to the social, environmental, economic and operational principles incorporated in the CSR Frame of Reference.¹³

3. CSR in Management Education Institutions

After entering into the new millennium drastic changes have taken place in corporate sector. That impact resulted in their CSR initiatives towards targeted goals. The United Nations (UN) formulated Millennium Development Goals¹⁴ (MDGs). These goals have provided new dimension to development sector. The community priority areas have given new indication to focus the issues. After MDGs formulation all MNCs and other industries are started their CSR activities on large basis. Many trusts and foundation came into force on behalf of institutions. Then the charity became the responsibility and the fashion changed to profession.

Whenever the CSR started on big basis there is a lot of requirement of qualified professionals. These professionals need to mould from management institutions particularly from Business Schools. Now these days many institutions or business schools have started CSR focused curriculum. The curriculum designing and teaching again become a new task. In these situations CSR curriculum needed much focused. Moreover many management education institutions started their own CSR units or foundations.

3.1 Curriculum

The CSR curriculum is designed in different ways in each institution. The programme may consist of classroom work, which includes lectures, discussions, student presentations, seminar discussions with subject matter specialists, observation study of social and related organizations, etc., Concurrent and block field work under supervision provides opportunities to develop practical skills in corporate social responsibility. Thus, at the end of the two years, the MBA in Management with CSR specialization will be armed with a range of competencies to work in the fields of social work, social welfare and social development processes in corporate companies initiatives. The nature of work covers a continuum of interventions from service delivery to organizing people for change to program development and influencing policy.

3.1.1 CSR Practices

In a developing country like India the government and Non government (including CSR) activists are implementing in all over the country. However the government is the major service provider in carrying out development activities. Less than 10%¹⁵ activities of social development activities are performing by the NGOs/CSRs in government development work¹⁶. The implementation part becomes a practice in CSR units. If say broadly we can define the development activities like Community issues cover a broad range of activities, including community assistance programs; supporting educational needs; fostering a shared vision of a corporation's role in the community; ensuring community health and safety; sponsorship; enabling employees to do voluntary work in the community; philanthropic giving etc.... There is a growing belief that MBAs are well placed to manage effectively and to lead corporations today. They are discerned to bring not only expertise in traditional management and financial skills to their employers, but also a sensitivity to all forms of CSR and the ways in which corporations need to interact with governments. European business schools are actively taking a lead in fostering good CSR management practices.

The CSR as a legal entity Governments have responded by spearheading the implementation of binding legal requirements relating to CSR in local laws. U.S. Congress recently enacted legislation mandating CSR systems within public corporations, with increased disclosure requirements and penalties for malpractice by corporate officers. The European Commission has been slower to respond. The EC has issued a Green Paper on CSR and has created a European Multi-Stakeholder Forum on the topic, though legislation has yet to result. It is apparent that in today's business practice, CSR is entwined in many multinational organizations strategic planning process. The reasons or drive behind social responsibility towards human and environmental responsibility is still questionable whether based on genuine interest or have underlining ulterior motives. Corporations are fundamentally entities that are responsible for generating a product and or service to gain profits to satisfy shareholders. However a business still comprises people those possess both the humanistic and naturalistic view points. The humanistic view is that a deteriorating environment and planet is of no relevance in sustaining human life let alone a business. There is highly visible change in behavior among corporate stakeholders as a result of high publicity on environmental and human right movements in present times. With global warming, and corporate behavior so publicly available to broadcast, there appears to be a trend in social behavior slowly changing from an individualistic mindset to a more holistic and collective reasoning. The Kyoto Protocol is an example of societies coming together and seeing the need for change on a global level.

3.1.2 Need of CSR curriculum and research in Business Schools

Introducing corporate social responsibility activity we can broadly divided into two dimensions in business school, they are; i) theory and ii) practice. In first type at business school level conducting classes, offering electives as compulsory and optional subjects. Initially the CSR focus will be started with understanding society social work, social welfare. Community Development, Planning etc...In the second type few activities can be taken up like involvement of students in various kinds of development activities, organizing events like blood donation camps and other related activities¹⁷.

In the end of the semester –III students can be taken up the block placement in any rural or urban locality. It will give an exposure about how to work and mingle with community in development process. Few students can be engaged any NGO as short term intern to learn NGO working style and dynamics. The Corporate Social Responsibility activity may lead to pioneer in helping marginalized and under privileged sections of people. Till now the social work education and practice and has over the years responded to the needs of the poor. The social work curriculum has been dynamic and changing with the emerging concerns in the era of globalization.

3.1.3 Importance of CSR Focused Curriculum

The MBA curriculum in business schools need to be redesigned to equip the management students with sound theoretical knowledge about social work, social welfare and development concerns of the poor, and help the students to develop skills and insights into working with people at the individual, group and community levels, and their representatives, and network with other groups and professionals working on similar issues. The electives include: Business Law, Corporate Financial Management, Corporate Reputation and Competitiveness, Corporate Social Responsibility and Business Ethics may be taught in business schools.

The scale and nature of the benefits of CSR for an organization can vary depending on the nature of the enterprise, and are difficult to quantify, though there is a large body of literature exhorting business to adopt measures beyond financial things. There is a correlation between social/environmental performance and financial performance. However, businesses may not be looking at short-run financial returns when developing their CSR strategy.

The definition of CSR used within an organization can vary from the strict "stakeholder impacts" definition used by many CSR advocates and will often include charitable efforts and volunteering. CSR may be based within the human resources, business development or public relations departments of an organization, or may be given a separate unit reporting to the CEO or in some cases directly to the board. Some companies may implement CSR-type values without a clearly defined team or programme. The business case for CSR within a company will likely rest on one or more of these arguments:

There is a lot scope in business schools to initiate innovative teaching methods and research works. Many international organizations and few government welfare departments are offering research projects on development of community. Based on research findings only the Government and international organizations are providing funding or support to implement various programs at grass root level.

3.1.4 CSR and Developing Issues

Protection of Environment and prevention of HIV/AIDS are present burring issues. Majority of the funding agencies are focusing on these two issues only. There is a big scope to do research in HIV epidemic. Frequent surveys, social dynamics and latest findings are changing the dynamics in implementation strategy. In the context of globalization the Corporate Social Responsibility turned as fashion to profession. Whenever it is treating as profession automatically it will come under management course. So there is a need of involvement of management institutes especially business schools to make good corporate social responsibility managers in future.

4. CSR as mandate for MBAs

The CSR curriculum as mandate in MBA course will lead to a positive impact in corporate sector in a long run. Due lack of efficiency many companies lost their image and moreover targeted community was neglected. There have been a great many instances of poor corporate social responsibility (CSR) in recent years in businesses around the world. The most widely reported cases have been the World Com and Enron collapses¹⁸. Directors of public companies were actively hiding losses in offshore accounts to boost their reported profitability¹⁹. The Geneva International Organizations MBA programme specializes in CSR, providing an opportunity for students to integrate their MBA studies with internships in international governmental and non-governmental organizations in Geneva. To address this public demand for greater accountability, many corporations, particularly those with famous brands, have adopted voluntary codes of conduct.

5. Emergence and Future of CSR

Now a day many of the national and multinational corporate companies are imitating some social development activities in different ways. Almost all corporate companies have started their separate wings to perform their 'Corporate Social Responsibility (CSR)' activities. They are engaging separate professionals from development sector and NGOs to do some sort of social activity on behalf of respective company. Few companies have started in the name

of the foundation to identify their company's name also. Many CSR activities are performing in collaboration with local level action groups, Non – Governmental Organizations (NGOs) and few government departments. Few CSR units limited to advocacy type of activities in an identified localities only. Many CSR units are doing their activity through designed projects. Especially Multi National Software Companies are involving activities like supplying free software and providing computers to schools and colleges. According to observations majority of CSR activities are implementing in urban pockets. Only few companies CSR units are doing interventions in rural areas only. This is treating it as Social and Human Face of the company. Few corporate banks started micro finance and entrepreneurship development as part of their regular operations and claiming it as social responsibility.

5.1 Emerging Trends in Developing Countries

Corporate Social Responsibility concept is gradually emerging in developing countries. This process has been rapidly occupying key position in corporate sectors in India. Many industries and corporate companies are opening their CSR units and positioned few staff. Now a day every company is doing some interventions either directly or indirectly. Many CSR units are collaborating with similar agencies to do activities for marginalized. The debate about CSR has been said to have begun in the early 20th century, amid growing concerns about large corporations and their power. The ideas of charity helped to shape the early thinking about CSR in the developed nations. The term CSR itself came in to common use in the early 1970s although it was seldom abbreviated. The term stakeholder, meaning those impacted by an organization's activities, was used to describe corporate owners beyond shareholders from around 1989. Many large companies and institutions now issue a corporate social responsibility report along with their annual report. The CSR report concentrates on their non-financial societal activities (usually positive contributions in nature).

The increased awareness of CSR has also come about as a result of the United Nations Millennium Development Goals, in which a major goal is the increased contribution of assistance from large organizations, especially Multi-National Corporations, to help alleviate poverty and hunger, and for businesses to be more aware of their impact on society. There is a lot of potential for CSR to help with development in poor countries, especially community-based initiatives.

5.2 Future of CSR

The Corporate Social Responsibility has increased in importance around the world. The world becomes a global village in the information technology era. Sharing and accessing of information become very easy. All big companies are expanding their business opportunities all over the world. Simultaneously the CSR activities also expanding speedily where company initiatives started. Now these days every company feels CSR is unavoidable and responsible thing. Moreover companies allocating separate budget and deploying professionals for CSR initiatives. It shows that it is emerging as a powerful thing in social development sector.

The Corporate Social Responsibility (CSR) is high on every corporate agenda. Social commitment is an essential part of every company. Corporate social responsibility involves the aspiration to make a positive contribution to the progress of the company and society. If a company initiates CSR wing the company concerned need to work hard consequently on a formal, coherent and transparent policy in this field. Then only the CSR will become a potential area for development of the society.

6. Conclusion

The rapid information technology innovations are changing the face of Corporate Social Responsibility. The concept of CSR is still debatable in democratic countries. There is a major criticism in all over the world is corporate companies are utilizing this concept to build their business expansion. Through this concept corporate companies are liaison and lobbying with higher bureaucracy in the government to get permissions/licenses to their companies easily. Many companies are getting tax exemptions by carrying out these social development activities.

After the new millennium there was a huge cry over globalization impacts all over the world. Civil Society activists, philanthropists, humanists were conducted World Social Forum and Asian Social Forum Meetings to fight against the globalization and corporatization. These forum meetings organized all over the world focusing globalization impacts. There was big criticism conducting these forums in large level with the financial support of Multinational and Corporate companies. To organize and sponsor such anti globalization campaigns the CSR units of the companies are using as their cushions. However there is a need of participation of all in the developing process to mainstream the marginalized community. These CSR initiatives certainly help to develop them socially and economically.

The increased awareness of CSR has also come about as a result of the United Nations Millennium Development Goals, in which a major goal is the increased contribution of assistance from large organizations, especially Multi-National Corporations, to help alleviate poverty and hunger, and for businesses to be more aware of their impact on society. There is a lot of potential for CSR to help with development in poor countries, especially community-based initiatives.

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The Review on Non-linear Analysis and Forecasting Methods of the Real Estate Market in China

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Abstract

The real estate market is a complex system. The scientific analysis and forecast are the premise of making correct decision. This paper gives a review of the research and application on the non-linear quantitative analysis and the forecast methods of the real estate market. Especially, its development during the recent years in China is discussed. It is in hopes of providing references to the researchers on this aspect.

Keywords: Real Estate, Nonlinear economics, Data analysis, Economic forecasting

1. Introduction

The real estate industry is an important industry for the development of the national economy, whose healthy development plays an important role on stimulating the economic growth, adjusting the industrial structure, and improving the peoples' living standards. In recent years, the trend of the real estate price receives attention from every walks of life.

The scientific analysis and forecast are the premise of making correct decision. The real estate market is a complex system, which is not only influenced by macroscopic environment such as politics, economy and so on, but also is related to many factors such as person's behavior, psychology, policy-making and so on.

The analysis and predict of the real estate market data is virtually to establish suitable mathematical model and to use it. The real estate system is an unstable stochastic process. When we analyze and the forecast the real estate market, many data show the remarkable nonlinear characteristic. It is very difficult to establish the simple linear mathematics relationship for this kind of time series data, which has brought lots of difficulties for the real estate price's analysis and the forecast. Therefore, when we analyze and forecast the real estate market data, we need to establish the nonlinear model which can well fit the data characteristic. It is an urgent demand for the current real estate industry development to research and apply the method of the analysis and forecast the real estate market. Thus, this paper introduces some methods which are used in the real estate market analysis and forecast recently that is in hopes of providing references to the researchers on this aspect.

2. Real estate market quantitative analysis and forecast method

Presently, there are some research and the application on nonlinear complex system's analysis and forecast methods in China and other countries. These methods are the nonlinear regression, the neural network, the grey theory, the wavelet arithmetic, the Bayesian method, the misalignment time series and the stochastic process, the misalignment dynamic model and so on. They had the preliminary application, and had made certain progress.

Now narrate them below according to the method classification.

2.1 Neural network model

It had been several dozens years since the proposal of the neural network. Its research experienced a devious process from the prosperous development to fall into the trough and grows strong again. At present the neural network method is already accepted and applied by the numerous research workers. It becomes one of the important ways to solve

complex problem.

Many scholars use the neural network model to analyze the real estate market. Lan Guoliang (2003) used the artificial neural networks model to forecast the housing sales rate. A.Quang Do and Grudnitski and Gary (1992) has made the analysis to the housing property situation by using the neural network, and pointed out that to this kind of nonlinear unstable system's analysis such as the housing property, the neural network model is one kind of better choice.

Hu Zhangming (2006) has forecast and researched on the real estate price index by using the BP neural network and the RBP neural network, and has explained the RBF neural network and the BP neural network can approach any nonlinear function by the random precision. Owing to difference of using the excitation function and the training arithmetic, their capability of approaching the performance are also different. The BP neural network uses the Sigmoid function. It has the overall characteristic. Each node has the influence the export value in very wide range of the input value, and excitation function mutual influence in very wide range of input value. Therefore, the BP neural network's training consumes more time; moreover, it is very easy to fall into the local minimum trap.

What the RBF neural network uses is the partial excitation function, which has overcome some BP network's flaws to a great extent. It is not that each node has the non-zero value to each input value, but often only very few several nodes have the non-zero stimulant value. In this way, it only needs to change the weight of very few partial nodes, which makes the network training speed quickly and adapts to the new data more easily, and its astringency also easily guarantee comparing the BP neural network.

Based on the application of neural network, the researchers also had use all kinds of arithmetics which combined with neural network to analyze real estate and made good effect. Wang Jing and Tian Peng (2005) used the wavelet neural network to analyze and forecast the real estate price index. This kind of wavelet neural network integrated the merit of the wavelet analysis and the tradition neural network and has the time-frequency localization analysis and the capability of self-learning to the data, thus it has displayed the superior adaptiveness in the processing nonlinear data fitting and the forecast aspect.

They also has compared the forecasting result with smoothing method and the RBF neural network forecast. They explained that the wavelet neural network convergence rate is quick, the approaches in the fitting precision and the forecast precision aspect has the good effect by using MATLAB to simulation the fitting and forecasting process. The result indicated that in the big sampled data situation, using the wavelet neural network to forecast the real estate index is able to obtain the good effect.

2.2 Grey theory and method

The grey theory possesses the characteristic that only needs a few data which can make the system analysis, build the model, forecast the future, make decision to the behavior and control process. It had solved some economic problems such as unable research or studies with difficulty because of fewer data and information indefinite. At present, it has been applied widespread in many domains in the social economy.

In the area of real estate, Ma Haitao, Chen Lin and Lu Zhengnan (2007) discussed the gray forecast method—GM(1,1) model structure and the model examination question basing on the grey theory. They used Chinese real estate price index from 1999 to 2004 to establish the Chinese real estate price index forecast model and carried on the analysis to the real estate price index. The forecasting result of this model is good which can really reflect the change tendency of the Chinese house price. OuYang Jiantao (2005) used the nonlinear gray forecast model, and carried on the forecast to the 2004 and 2005's data by using some commercial housing's average price statistical data from 1996 to 2003. They compare them with the actual data, and it has also made the good effect.

In recent years, there is not many literature to analyze the real estate price by using the grey theory and the neural network. Some scholars used the model which combines the grey theory and the neural network to analyze some economic problems. Xia Jingming, (2004), Xiao Dongrong and so on proposed the combination grey neural network forecast model on the basis of the gray GM(1,1) forecast model. They used the grey model to forecast first, then revise its forecast residual with the neural network model, and analyze the actual economic problem. Finally the result indicated that this method increased the forecast precision and had better application prospect. In view of the fact that the real estate's price complexity and the misalignment characteristic, Cai Xiao, Ren Peiyu (2007) used Chengdu real estate price data and established Chengdu real estate price single item forecast model separately, and carried on the comparative analysis to the good and bad points of the single item forecast model by using the improvement gray forecast model and the RBF neural network model. Then they used the standard deviation method to carry on the weighted distribution, combined two models, and established Chengdu real estate price combination forecast model. This model has been used to forecast the real estate price of Chengdu in the future 5 year.

2.3 Bayesian method

Bayesian method is the system modeling method which developed in the recent several dozens years. Its basic idea is

that combine people's experience and knowledge which are regarded as the apriori information with the actual model, namely using the model information, the data message and the apriori information to carry on the forecast.

Due to practical significance, the research has a quick development in this area, especially in the social economy domain's application. It is said strictly the Bayesian method cannot belong to the nonlinear method. But in view of the fact that its technology to agilely choice a priori distribution and its unique superiority to deal with the complex economic problem, this article also gives the narration on it.

Bayesian method is an analysis forecasting technology based on statistics. Its research has increased day after day in recent years in China. But its development isn't still consummation and mature compared with overseas. Chiong Longguo (1997) used the Bayesian method to establish the house price exchange index model and carry on the comparative analysis to the former model data. He explained the different model might obtain the different error which can instruct scholars to establish the model when analyzing the real estate. Dnallele Lewis and Thomas M.Springer (2003) used the Bayesian stochastic edge model to carry on the analysis to the investment in real estates cost efficiency. Wen Haizhen, Jia Shenghua and Yang Zhiwei (2006) used the Bayesian method to carry on the analysis to the comparison and choice of the real estate project .They calculated expected revenue of the project under four kinds of external environment and Bayesian income value of 16 decision function. The Bayesian method can effectively choose the real estate project and can be propitious to reduce preliminary risk of the project development through the research analysis.

2.4 Regression, time series, stochastic process and fuzzy

The traditional statistics and mathematical model such as Regress, time series, stochastic process, fuzzy and so on has the widespread application in any economic analysis and the forecast domain. The real estate market is not an exception. Usually we may select the different model according to the different analytic purpose.

Ou Tinghao (2007) used the ARMA model and carried on the demonstrative analysis on the quarter data from the first quarter's real estate price index in 1998 to the ones of the third quarter in 2006.. Then they used the established model to make the forecast to the real estate price index of the fourth quarter in 2006 and the first quarter in 2007 and gave the precision magnitude of error which had received the good effect. Substantively, what he used was still a linear method.

W. Miles (2008) proves that the GAM model surpasses ARMA and the GARCH model in the forecast aspect when analyzing house price which is nonlinear system through experiment. Particularly, its application has better effect in the high price tradition housing market which is in existence of soaks the desert.

Zhang Suodi and Li Bin (2007) has researched that it is possible by using nonlinear dual stochastic process model (AR(1)-MA(0) the model) to explore the law of development and the future condition of the real estate price. They obtained the real estate price predicted value in certain range. Based on this, they carried on demonstrative study on Taiyuan commodity house price housing price from 2001 to 2005 and made forecast appraisal of it. This model has fitted the historical data well. The appraisal result confirmed that this method had the well feasibility and precision.

Wang Laifu and Guo Feng (2007) pointed out that the influence of the monetary policy on the real estate price will be a long-term dynamic process and the change and impact of the money supply and the interest rate level will have the long-term influence to the real estate price. Through establishing the VAR model, they used the pulse response function and the variance decomposed method to study that money supply and the interest rate change attacks bring dynamic effect to the Chinese real estate price. The analysis result indicated that the money supply change will have long-term continues positive influence to the real estate price. The increasing of money supply will cause the real estate price rise. The interest rate change has the negative influence to the real estate price, but its dynamic effect weakens gradually in the long-term and returns to the origin finally. The contribution rate of the money supply change is bigger than the interest rate change to the real estate price change and the former assumes ascensive trend, but the latter gradually reduces. Based on this they has given the related policy suggestion.

Wu Honghua (2005) proposed a method of the real estate price stochastic-fuzzy regress evaluation using the fuzzy mathematics and random theory. This method has the scientific and the accuracy nature. It is simple and practical. At the same time it has the broad application prospect. Finally he used an example to explain practicability of this method.

2.5 Other idea and method

Billie Ann Brotman (1990) has made the predictive analysis on four important housing characteristics by using the nonlinear model. The result indicated that the nonlinear model is in surpassing of the linear model in the real estate analysis. John Okunev, Patrick J Wilson (1997) have made the synthetic evaluation on the relevance between the housing market and Stock market by using the nonlinear method which has good effect.

In the 1990s, about researching the complex nonlinear system, Ott from Maryland University in the USA and 3 scholars firstly proposed the chaos control thought to realize the analysis to the nonlinear system.

Ma Junhai and Mou Lingling (2005) carried on the analysis to the house price by using the nonlinear gambling model

and pointed out that when the land price adjustment parameter changed, the government and the real estate businessmen's gross revenue and the marginal revenue had the possibility to enter the chaotic state.

Through joining the external control signal in the model, they could control the state variable value, which may make the land price and the house price converge quickly and effectively to the Nash equilibrium point from the starting value. The government and the real estate businessmen's gross revenue may also enter the chaotic state from the stable state separately. Comparing government accumulation income uncontrolled with the one controlled, they found that after the control, government accumulation income grew 25.2% and gave out the corresponding numerical simulation result. This method has the good application value in the housing market regulation aspect.

There are other methods in the real estate market nonlinear quantitative analysis aspect. Yao HongXing and Wang Guodong (2008) introduced the limited rational dynamic Gunuo model into the real estates investment based on our country real estate market which has not been mature. Considering the complexity of the investment in real estates, they has established the investment model under a nonlinear cost function which made this model conform to the actual utilization nonlinear theory well. They analyzed the stability of the model singular point and theoretically analyze the influence of various parameters on the stability of investment process Through theoretical analysis and numerical simulation, they discovered when the certain parameter of the model varied to certain extent, the Nash equilibrium point would become unstable which caused the system become unstable. They has given this system's stability region, analyzed the influence of the parameter to the stability of the invest process, and gave the economic explanation to each kind of situation the system appeared. They attempted to provide theory reference to the investment behavior.

Sun Yun and Nie Qibo (2001) proposed to construct the real estate price hierarchical structure system by using the AHP method, constructed the fuzzy relationship the comparison matrix by using 1-9 scales which compared with each other, and reckoned the similar degree between the estimating real estate and the similar real estate. Then they estimated the real estate market price through the price and the similarity fitting function. and pointed out that using the AHP method's estimate model to compile the computer program. They developed "the real estate estimate information management system". It not only could balance the estate price quickly but also realize the standardization evaluation mode, which provided the effective tool for the real estate price appraisal in our country by using consistent and scientific program and criterion.

Conclusions

There are lots of achievements at present about the analysis, the research and the application of the nonlinear economic system and it is still consummating and developing. In analyzing the housing market, we may select and establish suitable model according to the different purpose and the different data characteristic. We should notice that when analyzing to the housing market in reality, any model is only reflecting or describing the phenomenon and the characteristic from a certain aspect. Inevitably, it exists in the limitation. Therefore, we should examine the model promptly according to the change of the influence factor to the real estate market, revise analysis and the forecasting result and unceasingly improve and consummate the model and the method which is in order to reducing the model's limitation, enhancing the analysis, the appraisal and the forecast effect, providing the correct policy-making basis for the real estate market related department and instructing our country real estate market to develop well.

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Assumption on the Reform of Social Security of Migrant Workers from Rural Areas From an Angle of Unified System in Urban and Rural Areas

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Abstract

China is making efforts to improve the social security for migrant workers from rural areas and that for farmers in rural areas. However, due to the strong mobility of migrant workers, the efforts are hard to coordinate. To establish a unified social security system for urban and rural areas is the most reasonable objective and can be put into practice at present. This system should cover a wide and comprehensive scope. In China, no matter whether city or countryside, every citizen should possess an only integrated account for social security. The account must move together with the citizen. The initial account of a migrant worker can be established in either city or countryside.

Keywords: Migrant workers from rural areas, Social security, Harmonious development of urban and rural areas

Problems about migrant farmers' social security are mostly discussed from the viewpoint of urban governments. In other words, we always want to solve these problems in cities. Although ideas are good, they are hard to put into practice and seldom take effects, because there are original defects in these ideas.

It is well-known that governments' control over citizens' social affairs is based on their residences or registered regions. For each individual, he or she always positions himself or herself in the registered region. As a group with strong mobility, migrant workers from rural areas work in cities seasonally or temporarily. Surely some work for a long period. However, nobody knows who will work for a long period in cities because it depends on many uncertain factors. Unfortunately, as most scholars or governments put forward or make up policies, they always suppose all migrant farmers work and live in cities for a long period, based on which they design a perfect set of social security measures for the sake of migrant workers, such as five insurances (endowment insurance, medical care insurance, work-related injury insurance, childbearing insurance, unemployment insurance), housing fund, education of children, and social security houses. In a word, they intend to provide comprehensive citizen treatments for migrant workers from rural areas according to city standards.

However, how is the effect of these measures? Who really does possess the five insurances and the housing fund among those migrant workers who work in restaurants or construction cities? Although many local governments and even the central government try to guarantee the five insurances and the housing fund for migrant workers by laws, regulations, or policies, as a matter of fact, few migrant workers can really enjoy these insurances. For the most optimistic prediction, only few migrant workers can enjoy one or two of these insurances. Up to now, the author has never heard of any migrant worker who completely possesses all insurances listed in policies. For the migrant workers who have already possessed one or two of these insurances, whether they can feel a sense of dependence in mind? The answer is no. Not mention the low social security degree and the hardness in payment, for the migrant workers who want to improve living conditions as soon as possible, few pensions and the kinds in several years later are far from sufficiency. If employers choose to deduct payments for relevant insurances from wages, migrant workers will earn less money and employers will regard it as a rise of expenses. Therefore, employers do not cooperate with the insurance policies, neither migrant workers do. It is not so surprising to find that all insurances regulated in policies fail to be carried out.

In other words, even if all migrant workers apply and pay for all insurances according to policies, whether it will be right? Whether there is social fairness? The answer is still no.

First of all, the strong mobility of migrant workers will inevitably bring about many troubles. For a great amount of migrant workers, after completing all insurance procedures, they may come back to rural areas soon or come to other cities or change jobs in the same city. How many troubles will these changes bring to the employers, themselves, and local governments? How many human resources and materials will it waste? How many costs of time and expenses will it increase? What's more, the standards of insurance payments and the degrees of social security are various in different

cities. How will it realize the continuousness of insurances? Similar problems are more than above.

To the least, even all those troubles can be solved technically we must face another more important problem. That is, concerning the fact that the government tries to improve the social security degree of migrant workers from rural areas on one hand, and on the other hand it has to improve the social security degree of farmers in rural areas, how does it deal with the relationship between them? If a farmer will never work in cities, he or she can join in the rural social security. If a farmer works in cities for a long period, he or she can join in the city social security. However, the problem relies in the mobility of farmers. If a farmer joins in both rural social security and the city one, it will generate overlapped insurances. Therefore, no matter what it is the government making up policies or scholars advancing countermeasures, the problem should be studied from the angle of unified social security in rural areas and cities.

Presently, although the government tries to realize the economic and social development regarding rural areas and cities as a whole and the differences between farmers and citizens in the register aspect disappear, all specific social policies are made up or carried out respectively in rural areas and cities, no matter what it is the central government or local government. Take the social security policy for example. One set of policies and standards are for cities, and the other for rural areas. So do the medical care policies. For migrant workers who are not pure farmers or citizens, relevant policies are more unclear and hard to put into practice.

Considering the present situations, the social security for farmers covers a small scope and does not form a complete social security system. There is a big gap between the urban social security and the rural social security.

In rural areas, since the collapse of collective economy, the former collective insurance and cooperative medical care system becomes useless. Farmers have to come back to the only traditional dependence on families. Although in recent years the rural cooperative medical care system develops fast and few caring houses and nursing houses appear in rural areas, the investments in rural people's health are far from sufficient, which makes public health and preventive care more impossible. Because of the fewer investments, poor financing abilities, lack of government supports, and weak anti-risk abilities, the cooperative medical care is not capable of providing medical expenses for serious diseases. Farmers have to afford most medical expenses for their lives. As a result, many farmers may come back to poverty due to diseases. In contrast, most citizens in cities join in "public medical care" or sorts of "medical care insurances" to different degree, or at least have insurances for serious or chronic diseases. A survey shows that the average transfer income (including pension, social assistance, etc.) obtained by rural residents in Shandong province from different social fields is 116.67 Yuan per capita, and urban residents 1301.47 Yuan per capita. The distance is more than ten times (2004). In the social security aspect, a huge gap exists between urban areas and rural areas.

Although foundations of social security in urban areas and rural areas are different, to establish a unified social security system for urban and rural areas is the most reasonable objective and can be put into practice at present, from a view of realizing the social fairness and the primary functions of social security system. Otherwise, if not put its organization and implementation on the agenda as soon as possible, present social security measures for migrant workers will become hard to put into practice. So does the great objective, constructing an overall well-off society (includes urban and rural areas) in China before 2020. Apparently, without the well-off rural areas, there is not a well-off China. In other words, without a unified social security system for urban and rural areas, the gap between urban areas and rural areas will never be shortened, and the social fairness and common prosperity will never be achieved.

As we discussing this issue, somebody always fights back with unbalanced economic development, unbalanced local development, and unbalanced income in urban and rural areas. Let's examine a simple instance. Presently most companies pay workers' wages by banks. Everyone likes this convenience with a bank card (or a bank pass book). Are the wages of workers same? For example, in a university there are professors, associate professors, instructors, assistants, workers, presidents, section chiefs, and department staffs whose wages are various. But that does not affect the unified payoff and management.

Therefore, there is a simple and practical method. Every citizen in China should possess a social security account that includes several sub-accounts. The government should provide social security for all citizens at the same level, no matter who it is President, academician of CAS (Chinese Academy of Sciences), entrepreneur, migrant worker from rural areas, or unemployed man. The central government can establish and adjust the common standard of social security according to the national economic development. For the part of payments, namely the payments for social security paid by agencies (enterprises, institutions, governments, social associations, communities, villages, and sorts of cooperative organizations) and individuals can completely reflect differences of urban and rural areas, regions, agencies, and individuals. This kind of payments is chiefly based on personal wages and incomes, which begins from the start of a job and stops till retirement. It also allows interruptions, such as the unemployment period, or losing the ability of work). The social security provided by the state starts from the very beginning and does not allow interruptions as long as a citizen is alive. Therefore, the social security account should be established at the same time with the citizen's household registration. How much one citizen can enjoy certain item (namely the sub-account, such as medical care insurance) of social security is determined by the total payments (the account balance at certain time point) of the

government, agency, and individual.

Other assumptions for constructing a unified social security system in urban and rural areas:

Establish a unified minimum living security system in urban and rural areas, which should take in the five-guarantee system and the social support system for the old and lonely people;

Establish a unified endowment insurance system in urban and rural areas;

Establish a unified medical treatment and health system in urban and rural areas (includes medical care insurance system). Carry out same medical treatment and health management policies.

Establish a unified unemployment register, employment service, and unemployment insurance system.

Construct a unified work-related injure insurance and childbearing insurance system based on same standards in all companies (include private enterprises) in urban and rural areas.

Establish a unified minimum wage standard for all workers in companies in urban and rural areas.

Establish a unified housing fund system in all companies in urban and rural areas.

With bases of the National Council for Social Security Fund, construct the national social security bank and take it as the exclusive bank that can open social security accounts for all citizens. Set up local branches that are in charge of managing the social security fund.

For all systems mentioned above, each citizen should apply an only integrated account (be identified by ID card number or personal code) for payments and funds. Different items (sub-accounts) should be listed in the integrated account respectively. In this aspect, we can take reference from the design of bank card.

Surely, the establishment of these systems is a complex project and could not be realized in a short period. Therefore, we must make up programs and create conditions in order to put them into practice as soon as possible.

In these systems, migrant workers can join in social security in their registered hometowns. The integrated account is effective in urban and rural areas and moves along with the citizen. The company which a citizen works for must pay for his or her social security. During the unemployment period, independently creating career period, and further learning period, citizens can pay insurance fees by themselves or stop it temporarily according to relevant regulations. This account is as convenient as a current bank pass book for national deposit and withdrawal. All citizens, no matter who they are migrant workers or urban residents, can print their bills in social security bank.

By this way, the gap between urban areas and rural areas is broken, so do the gap between enterprises and institutions, and the gap between different enterprises. Under the present social security system, if a person quits from certain institution and takes a job in an enterprise, he or she will have to deal with complex procedures to keep his or her continuous social security. In addition, the social security in power, communication, military, and civil aviation industries is independent from that in local areas.

What the most important is that will solve the social security account's continuousness problem caused by population flow and make government's management on social security sections simpler and easier, reducing troubles in sorted-group management. Only in this aspect it will absolutely save numerous costs of management. Once finish the system design, Chinese social security bank will exercise most functions that is originally employed by social security administrative departments, personnel departments, and health administrative departments respectively. The government merely exercises the supervision function. By this way, not only are the costs of administrative management reduced, costs of technologies are also reduced by thousands of times. Take the medical care insurance for example. At present, different and independent sets of technological management systems are respectively developed, maintained, and operated for urban workers, urban residents, administrative institutions, and rural residents. In contrast, according to the new system designed in assumption, only one set of system can make it. This system has a simple structure and could be established by reforming the deposit management systems in present banks.

Besides, because of the unified rules, all parts, especially enterprises, can simplify their internal financial management, labor management, and human resource management, saving costs.

Reduce costs of social law-execution greatly. Citizens' social security becomes clear and simple, and easy to be safeguarded.

In a work, technically this assumption is practical.

Especially, the Ministry of Labor and Social Security is engaged in studying the transfer and continuousness of migrant workers' social security. On 7th, Sep. 2004, in the press conference for the issue of white book "China's Social Security and Its Policy", Zhaoxi Meng, the director of social insurance administration, Ministry of Labor and Social Security, said that China would make up relevant policies for transfer of workers' social insurances in different regions. The Ministry of Labor and Social Security embarks in solving the transfer and continuousness issue of migrant workers'

social security. By constituting relevant policies, no matter where migrant workers join in social security, their social insurances can be moved together with them to their new work places or rural areas (2004). However, in our opinions, there are obvious limitations in the government's studies on this issue. That is, what they focus on is merely the transfer of floating population's social security. They do not think about an integrated solution for urban and rural areas. Therefore, they can not find out a perfect method that will solve the transfer issue of all citizens thoroughly, including not only floating population but also non-floating population.

It is well-known that no matter who they are rural residents or urban residents, people can not be absolutely classified into floating population and non-floating population. A person may stay there in this year, but he or she may move next year. For ten years stay, but move in next ten years. It is almost impossible for a person who never moves all the time. Therefore, it is necessary and practical to construct one fixed lifelong social security account for every citizen that breaks up the limits between urban areas and rural areas, and different regions.

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The Relations between Products Design and the Space Environment

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Abstract

The products have merged the plural culture in the world organically, which built out the space environment with the characteristic of different regions and different design styles, thus make the products satisfy different spiritual purposes as much as possible and reach the sympathetic response of the spiritual level. To the consideration of the relation of the product and its space environment, that is to meet the demand of human oneself. As a specific sense of "the space environment", the product is subordinated to the space environment and has extremely close "symbiotic, coexistence" relationship with space environment, in the modern society, the product design has played important role to the formation and development of the space environment.

Keywords: Product design, Space environment, Relations

People are living in a certain space environment, various space environments, including natural and social environment, all of them have a major impact on human life. The scope of environment is enormous, and all artificial things that are formed is the factors of the space environment. In modern society, product design has played an important role to the formation and development of the space environment.

For many years, the definition of excellent product design is that the performance is outstanding, the usage function is fine, the production process is simple as well as the safe and pleasant appearance, the relative importance of these criteria has some differences because of the product diversity. The definition of new excellent product design will include the consideration of the space environmental factor.

Then what is the product design? The product design is a shape activity that people take industrial products as main object for the survival and development; it is the important field of pursuing function and the value of use, it also is the medium of people and nature.

The Japanese Chuan made a vivid description in his book "what is the product design": "The mankind places oneself in the nature, there have produced two kinds of contradictions in the process of gradually breaking away from the natural. The first kind of contradiction is that mankind doesn't care oneself is a member of the nature, and bravely challenges the nature; The second kind of contradiction lies in that the mankind was born solitarily, and also died solitarily, but a person can't survive alone. In order to overcome the first kind of contradiction, the mankind created tool; In order to solve the second kind of contradiction, the mankind invented language". This section is just the abundant expression of the meaning of "Design": The mankind designed various products in the world of tool for the sake of the relation of contacting person and the nature; The mankind created mark, symbol in the communicant world for the sake of coupling interpersonal relation; In order to mediate the relation between human society and nature, and make it prone to equilibrium, then the space environmental design appeared. Among them, there are very close relations in the product and space environment.

1. The space environmental design is the important component in the knowledge system of product design

The science of product design was constructed synthetically by the knowledge system of various fields such as nature, humanity and psychology, etc. Among them, man-machine engineering, mechanical engineering, design methodology, the material and processing technology, design psychology is being applied extensively. Now I briefly introduce the study content of some correlated curriculum.

1.1 The man-machine engineering

The research contents and range of application of man-machine engineering is extensive, but the basic research direction of this discipline is to insure optimization of overall performance of the man - machine - environment system by opening out the regulation of interrelations among the man-machine-environment. As regarding product design, it also surrounds the basic research direction of man-machine engineering to make sure a concrete research contents, and

it is the important content of man-machine engineering to research the relation between the product and surrounding environment.

1.2 Design methodology

The problem that should be solved first in the methodology of industry design is the combination of technology and art. In the process of the combination of technology and art, design science became "soften", and art has got the materialization, just in the middle of this, the product design has been developed. And the second basic problem of the study of design methodology is correctly handling the relation between function and form. Product design doesn't only research the relation of man-machine, and should expand to artificial environment of the whole human. Paying close attention to the harmony of human society and living environment on the whole is the main trend of the development of product design. So the third basic problem of the methodology of industry design is to study the relation between macroscopic and microcosmic. We can understand that one of the important research contents of design methodology is research the artificial environment of the products.

1.3 Material and processing technology

Through studying to this course, we can know that people received experiential understanding from material performance, craft and use characteristic over a long time, it changes to research the fundamental science from internal structure of material. Our science consciousness of the material changes to practical application of the material in social production and living. And these happen to show that design has become the tie that meets the needs of society through the technological means. In the process of product design, applying correctly to the material also involves the relation between products and surrounding environment, for example in the environment with moist dark, the material characteristic of the product should be able to bear tide and anticorrosion etc..

1.4 The space environmental design

The space environmental design is the design that bases on the whole society and the mankind and takes the nature space as the centre, also call space design, it is the material medium between nature and the society. Because the "space" range of the space design is too great, should be limited in a certain range, i.e. the place where the mankind can survive and live. This place must possess the requirement that the mankind survive, and fully meet the need of human life. Space environmental design regards living space as object to come on. The products are essential material condition in the living space, the research of space environmental design facilitate the understanding of the relation between product and space environment, thus set up the thought of system design.

It can be found out from the disciplines above enumerated, the study on space environment around the products is the important research contents of these disciplines. The space environmental design is the important component of the knowledge system of products design.

2. The product is a kind of particular meaning of "the space environment"

It should have a correct and overall understanding to the concept of the environment at first to understand the space environmental factor in product design correctly. So-called environment is surrounding everything experienced and felt by us, it includes the sum total of various nature, artificial factor or function that closely-related with human and influence the survival and development of human. That is to say, the environment not only includes the combination of various natural main factors but also includes the combination of different ecological relations formed by the interaction of person and its activity and natural main factor. Regarding the living environment of human that can be divided into two major types: I.e. material environment and social environment.

So-called material environment is the environment formed by various material factors; it can be divided into two kinds: natural environment and artificial environment.

The natural environment is the sum total of various natural factors in the nature, for instance mountains and rivers, lakes and seas, atmosphere, biosphere, lithosphere, etc.. It is the natural environment that offers the most basic material condition for the existence and development of human. The artificial environment is the living environment of human that is formed by the mankind utilizes and transforms the natural environment, it includes the material civilized world that mankind touch and design. The range of the artificial environment is extremely enormous, all artificial things are the factor of the artificial environment, even as big as city, building, or as small as various industrial products and physical factors such as sound, light, heat, etc. that constitute indoor space. In the modern society, the product design has important effect on forming and developing the artificial environment, and product is a kind of factor that constitutes artificial environment, it's also a kind of "space".

3. The product and space environment exist the very close relation of "symbiosis, coexistence"

It should know the relevant factors that product exists at first to understand the relation between the product and its space environment. The factors related to product mainly reflect in three aspects: user, environment for use and existing society.

3.1 User

The relation between products and user mainly reflects in three aspects. First of all, the closest relation is the man-machine relation. Man-machine relation is the core of product design, why the products form, how is the state and how value behavior is, all of these make concrete appraisal around man-machine relation, design behavior also naturally get back to these basic point, i.e.: the symbol behavior, the contact behavior, dimension behavior, the range behavior, the manner behavior, operation behavior. How to better solve the man-machine relation for guiding the product design, in the knowledge system of product design, mainly applied to man-machine engineering. Secondly, the relation between product and user also reflects in the purchasing power of the user, this will require correct localization to the products that are designed, and develop the corresponding products to different consumption crowds. Finally, consumers' taste is a factor of guiding product design too, this demands that design should have original creation and leading side, and also be accepted by the user of today.

3.2 Environment for use

The relation between product and using environment reflects at peripheral product on one hand. People usually not only use a kind of product to finish a certain behavior in daily life, it is also very important to coordinate the relation between the products well to the design of product; The relation between product and environment for use also reflects on the space that is used, the size of the space will influence the use of the products too, so according to different space requirement, the design of product will have certain restriction; The environmental state around the products is also a respect of the relation between products and environment for use, physical environment such as the noise, illumination, humidity, temperature, atmospheric pressure, dust, radiation, force field, magnetic field, etc. are restricting almost all the respects of product design seriously, there are also structure, shape, material, craft, function, operation, etc.. There are some products such as the warm kettle, the design of travel type and household type are different, though their final function are all used for holding water, the former have to be portable besides holding water, but this problem does not exist in the household type, so long as it is convenient to take and fetch. For another example the design of the clock, wall clock, desk-top clock, floor desk clock, wrist-watch, because the use environment of them is different, its form of design has a very great difference. Every kind of product has environment in conformity with it to exist, while carrying on the product design, we should design the products according to the particular environment where the products exist in. The products should also reflect the characteristic of the surrounding environment to a certain extent, thus can combine with the surrounding environment harmoniously.

3.3 Existing society

The behavior of the social attribute of product in the whole development of human society in the future will be more and more distinct. The products that are from forming to giving play to the role of function are influenced and determined by every factor in the society constitute, politics, economy, folk custom, art, science and technology, religion, humanity, every factor of them refracts all sorts of phenomena out in the stage of society all the time, such as putting out different idea direction and main rule of constitute to composition and regeneration of the artificial thing, the low exhaust mini-car under the leading factor of the social ecological view, the new dynamical solar cell, research and development the fuel of hydrogen for family cars, etc.. As long as there is existence of the society and then will have a cultural phenomenon, the spirit of humanity performance that permeates out from every material of the society. The product is the outcome of the development of social humanity, each product also reflect the new contribution of the cultural development of mankind at the time of symbolizing new technique means that bring benefit to mankind. In the product design, the social humane factor is acting on localization and development of the products from the soft side constantly, and pays close attention to the developmental tendency of each cultural mainstream of the society, the important content which the product design reveals the competitiveness is to turn the cultural consciousness of conception into the means of design behavior in time. The ones that influenced product design directly in the view of social humanity are as follows, social aesthetic, product function value, regional folkways and customs, culture background cognition, etc., they constitute main contents that product humanity display. In addition, there are close relations between questions and product design such as social regulation, taboo, public hazards, etc.

We can know from above, design should be limited by certain condition, it is not the beauty pursued by designer's subjective judgment, and design will be limited by user and environment for use, will be limited by the market and selling mechanism. The product can not get away from the environment where it exists and the environment is the condition that the product depends on. Product also reflects the era characteristic of the space environment and the living level of people. The products have merged the plural culture in the world organically, which built out the space environment with the characteristic of different regions and different design styles, thus make the products satisfy different spiritual purposes as much as possible and reach the sympathetic response of the spiritual level. To the consideration of the relation of the product and its space environment, that is to meet the demand of human oneself. Therefore we can know that the products subordinate to space environment and exist the very close relation of "symbiosis, coexistence" with it.

4. Our products should be designed with space environmental awareness

The products serve the people and take "people" as the center of a circle to launch, however, product design not only needs to consider people, but also consider the space environment that people locate. The definition of lately outstanding product design will include the consideration of the environment.

The design activity of mankind not only created the mankind's material environment but also constituted visually cultural landscape of human life. So the space consciousness in the design should also include from people's physiological and psychological need to set out, and in view of different culture background of society, design aesthetical factors of vision meticulously such as the color, shape, material in the space, etc., should avoid the pollution of design, create the beautiful living environment of human with coordination. The coordination of the visual factor included the coordination between the artificial things and surrounding environment on the vision, also include the coordination of different visual elements in artificial environment. While carrying on the product design, it should not only coordinate with the natural environment on the ecology, but also obtain tacit understanding with nature on the vision, and try hard to avoid the destruction to nature with forming the relation of "symbiosis" with nature. The organic building that was designed by Wright who is a famous designer in U.S.A. is the model in this respect. His organic building is "the natural building", the nature is the organic whole, the designers should get enlightenment from the nature, house should like plant, is "a basically harmonious key element at the ground, subordinate to the natural environment, grow out from the field, in face of the sun." The flowing water villa that Wright designed reflects the ideal of the organic building, it stands on the flowing water merrily and lightheartedly, the platform stretches into the surrounding space unevenly, size and material contrast finely with topography, wood, mountain stone and flowing water, building and nature are melted as an organic whole.

Any product design has its particular using space, so while carrying on the product design, we must consider the relation between the overall environment around and the product in such aspects as function, shape, color etc. fully, make design meet the requirement in use and style of the overall environment, and willing to be the supporting role, can't be distracting. If a certain product is merged in the whole space, become an inalienable part in space, and then this product design is "admitted" at least. In a sense, the space environmental awareness is to overcome the desire of self-expression but give attention to both the whole and the overall situation. Moreover, in many production and living environment, a lot of products form the product system because of the relation of using function, such as the series of electrical home appliance in the integrated kitchen and the series of modern official working instrument that is used in the office, etc. While carrying on the design of this kind of product, we should consider their intercommunity on the shape style and the coordination relation in space dimension, make the same series of products can constitute harmonious, unified function and visual environment but be unlikely to produce conflict. If we lack this kind of space environmental awareness, emphasize the full play of individual character and creativity unboundedly, then there may produce chaotic situation. Ronny who is a designer put forward, the design of any single-item product must all be incorporated in the integrated environment with unified style, otherwise the thought that designers wanted to express will have all gone in the conflict of the element.

The space environmental awareness of the designer still embodies in obtaining the biggest using value with the cost of resource as small as possible, and making the pollution of produces reduce to lowest in the process of production, use and recycling, then attain to make the product possess competitive ability in market, and friendly to the space environment.

5. Summary

The space environment that the products exist in has very important influence on product design, the use environment of the product while loading and containing product also restricting and guiding it. How to hold the trend of product design on the whole in the complicated cultural world of design, find out "the position" of product in the space environment in various restriction is obviously the designer's important subject. This require designer must keep sensitive, distinguish his position in the nature and society constantly, and coordinate people, product with society, nature among corresponding level and relation (including the material level and culture level), Such products will coordinate and have vitality with space environment all the time.

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Demographic Factors Affecting Employment in Pattani and Songkla Provinces of Thailand

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Abstract

This study investigated the effects of demographic factors on the employment of people in Pattani and Songkla Provinces of Thailand. The outcome variable is binary employment status (employed or unemployed). The determinant variables are education completion level (none, elementary, secondary, high) and the demographic factors gender, religion (Islam or Other), seven 5-year age groups (25-29 to 54-59), and district. We used data from the 2000 Census of the National Statistical Office. The analysis method involved first stratifying by religion, gender and district and then fitting logistic regression models in each stratum to determine odds ratios for the association between the outcome and the education completion level factor after adjusting for age group, and then combining these odds ratios using meta-analysis to obtain the overall independent association between education completion and unemployment in each province. The results showed that in Songkla province persons who had completed secondary education had no advantage in gaining employment over those who had completed only elementary education. And in Pattani province, those who had completed secondary education had a substantially higher unemployment rate than those with only an elementary education.

Keywords: Unemployment rate, Education completed, Age group, Religious affiliation, District, Logistic regression, Odds ratio

1. Introduction

The total population of Thailand increased from 55.8 million in 1990 to 62.3 million in 2000. In November 2000, 53.3% was in the labour force while about 24.8% were over 13 years old but not in the labour force. The rest of the population (21.9%) was under 13 years of age. Among those who were employed, only 2.7 percent were employers, while 40.3 percent were employees and 57 percent were classified as other workers.

According to the *Thailand Development Research Institute (TDRI)*, the total number of unemployed in the population in the third quarter of 2001 was 930,000. Among them, 381,000 (41%) were new graduates, 325,000 (35%) were in the informal sector, such as those who were self-employed and farm workers; and 223,000 (24%) were public officials and company employees. The unemployment rate is usually high during the third quarter since this is the cultivation season (National Statistical Office 2001).

The quality of the labor force is one of the most important determinants of Thailand's long-term growth prospects. It will take a sustained commitment to rectify current weaknesses. For example, 80% of Thailand's labor force has only elementary education or less, compared with 60% and 50% for Malaysia and the Republic of Korea, respectively. Although the Government has made considerable efforts to expand education opportunities, elementary school completion rates have actually fallen in recent years (to 69% in 1996). About 5.5 million people in the 6-19 year-old age group are not in school or any form of training. For rural people, participation in education or skill development programs remains strikingly low. For those who do participate, standards are poor. Low quality and low enrolment appear to be strongly correlated. With regard to training, only 1% of the labor force participates in formal, institution-based programs. In-house and on-the-job training schemes have been increasing, but skill shortages have been one of the main factors impeding Thailand's transition to higher value-added industries.

Thailand's success in making elementary education compulsory has not been replicated in secondary and higher levels of education. Although the transition rate from elementary to secondary level has improved from less than 50% in the 1980s to about 90% in 1996, the enrolment rate has remained very low at 34% of the population aged 15-17. Also, there has been little improvement of quality in secondary education, especially in science and mathematics (Asia Development Bank 1999, page 6).

Of the five southern border provinces north of Malaysia, four (Pattani, Yala, Narathiwat and Satun) are different from other areas in Thailand. Their people have a different language, religion and culture to the rest of Thailand. The fifth of these border provinces, Songkla is the only one of the five with a non-Muslim majority (77%). Muslim people comprised 80% in Pattani, 82% in Narathiwat, 80% in Yala, and 68% in Satun (National Statistical Office 2006). Furthermore, Songkla had different education completion rates. At the 2000 census, of the population over 25 years of age, 27.6% in Pattani had not completed elementary education compared with only 14.6% in Songkla. Arguably, such education completion rates affect the individual's stability of occupation, income, and employment status. The negative consequences of unemployment affect not only the individual, but also society at large. Joblessness is connected with negative impacts on the personal perspectives of life, political opposition and integration problems (Strasser 1997).

These considerations prompted us to study the influence of education completion level on unemployment status and compare these associations in Songkla and Pattani, two of the southern Thai provinces with differing levels of educational completion and demographic characteristics. The results of this study could be useful for deciding policy and action in education, for better employment and social integration outcomes.

2. Materials and Methods

2.1 Study design and variables

The study is cross-sectional, based on population data selected from the 2000 Population and Housing Census of Thailand.

Because of the substantial proportions of young persons in education and of older persons in retirement, persons aged 0-24 and 59+ years were excluded from the analysis. Also excluded were those whose level of education completed was not recorded and others whose occupational category was recorded as 'not stated'. Thus full-time students, early retirees, unpaid carers within a family and others who did not consider themselves unemployed were excluded from the data. As a result, the focus of this study is very close to the usual definitions of 'labour force', those people seeking employment, whether unemployed or employed in any of the three broadly defined occupational categories (agriculture, elementary, professional). In this classification *elementary* includes plant, service, and various unclassified occupations. The 'unemployment rate' is thus defined as the number of unemployed as a percentage of the total number in the labour force. The total study sample was 232,220 persons for Pattani and 551,695 persons for Songkla. Table 1 shows unemployment rates by age group and occupational category in Pattani and Songkla.

The determinant variables are demographic factors consisting of gender, religion (Islam or Other), age group, education level (none, primary, secondary, high) and district. Data from smaller geographically proximate districts were combined to avoid zero counts in the statistical analysis, reducing the number of regions from 12 to 7 in Pattani and from 16 to 11 in Songkla, as illustrated in Figure 1.

2.2 Statistical methods

The specific aim of the study was to examine the association between unemployment status and completion of education, and to compare these associations in the two selected provinces, after taking into account demographic factors (age group, gender, religion, and location of residence). Since the unemployment outcome is binary and the education completion determinant is a categorical variable with four factors, this association may be described by a set of odds ratios, and logistic regression (see, for example, Hosmer and Lemeshow 2000) may be used to adjust these odds ratios for the demographic factors. To facilitate comparisons with respect to different levels of education completion, we chose completion of elementary education as the referent level. This allows the results to be expressed in terms of three odds ratios: none versus elementary, secondary versus elementary, and high versus elementary.

Preliminary analysis involved using the logistic regression model to compute separate age-group adjusted odds ratios for each combination of gender, religion and location in each province, giving 44 (2 x 2 x 11) such odds ratios for Songkla province and 28 (2 x 2 x 7) for Pattani province.

Further analysis involved using meta-analysis to combine these odds ratios within each province, and thus obtain overall odds ratios showing the associations between unemployment and each level of education completion. Since odds ratios are more symmetrically distributed when expressed on a logarithmic scale, and logistic regression routinely provides estimates and standard errors of natural logarithms of odds ratios, we did the meta-analysis on the logarithms of the odds ratios, using a method described in McNeil (1996) as follows.

Denote the estimated log odds ratio in stratum g by y_g , its standard error by σ_g and define the weight $w_g = 1/(\sigma_g)^2$. Then the overall (combined) estimate of the log odds ratio is the weighted mean

$$\bar{y} = \frac{\sum w_g y_g}{\sum w_g}, \quad (1)$$

and its standard error is

$$\sigma_{\bar{y}} = \frac{1}{\sqrt{\sum w_g}}. \quad (2)$$

The overall odds ratio estimate is thus obtained by exponentiation as $\exp(\bar{y})$ and its corresponding 95% confidence interval is given by $(\exp(\bar{y} - 1.96 \sigma_{\bar{y}}), \exp(\bar{y} + 1.96 \sigma_{\bar{y}}))$. Confidence intervals for the individual odds ratios may be plotted together with the combined results as a meta-analysis plot (see, for example, Moja et al 2007). The statistical analysis was performed using R (R Development Core Team, 2007).

3. Results

Table 2 gives the estimates and standard errors of the age-group adjusted log odds ratios after fitting the logistic regression models separately in each of the 44 demographic cells defined by combinations of gender, religion and district in Songkla (lower panels) and Pattani (upper panels). Since no non-Muslim males who had completed only secondary education were unemployed in the region comprising Panare, Saiburi and MaiKaen districts of Pattani province, the odds ratio for this group is zero and its logarithm cannot be calculated. For meta-analysis calculation the values for this cell were replaced by the corresponding values for high education completion. Figure 2 shows meta-analysis plots for the comparison between secondary education completion and elementary education completion. Table 3 shows the overall odds ratios and corresponding 95% confidence obtained by applying formulas (1) and (2) to the individual values given in Table 2.

4. Discussion

The individual's level of education is an important determinant of occupational success. (Isengard, 2003) and in Thailand there is a compulsory education scheme until the end of elementary education, at grade 6 level, and usually encouragement to continue on to complete secondary education. In most parts of Thailand most students may enter public or private secondary school after completing elementary education. The curriculum of the secondary education was designed to offer various fields of academic knowledge as well as fundamental occupational skills students can use as a basis for working in their future careers. Findings of this study in Pattani and Songkla provinces are partly in agreement with Isengard's statement and partly inconsistent with it: partly showing that employment is an incentive for completing more education but also revealing some disincentive. At the extremes of 'no education' and 'high education', there was general agreement, but an intermediate level of education (secondary education) did not significantly increase likelihood of employment in either province, when compared with elementary education only (OR = 1.348 for Pattani, and 0.997 for Songkla).

The statement by Isengard, and assumptions of a positive association between education level achieved and improved employment outcomes, were made in the context of western post-industrial economies where education is needed for entry to specialized service sector employment and where relatively few people work in agriculture. This contrasts with the situation in parts of southern Thailand, at least in both Pattani and Songkla provinces, where the percentages of the labour force employed in agriculture were approximately 42.6% and 34.0%, respectively (From Table 1). Experience and skills from working in agriculture, rather than the completion of secondary education, might be more valued and more likely to lead to employment in agricultural occupations. The relatively high dependence on employment in agriculture in the region might be part of the reason why completion of secondary education appears to be of little or no employment advantage in the two provinces. This possible explanation, that the agricultural economic base of these provinces, especially of Pattani Province, leads to secondary education being of little, or even negative, value for employment, could be further tested by examining age distributions in various occupations and so invites a follow-up study. It would also be useful to investigate the supply/demand situation for workers in agriculture and other sections in Pattani, and whether or not secondary education raises work goals to a point where some choose unemployment rather than laboring work.

Differences between the two provinces deserve attention. In Pattani those who had completed a secondary education were actually more likely to be unemployed, more likely than for any other level of education. There are differences in the economic bases and occupational structures of the two provinces. In Pattani, compared to Songkla, a greater proportion of the labour force is involved in agriculture and a lower proportion is in professional positions (18.5% compared to 24.1%). Both provinces have some employment opportunities for professionals, providing employment for some who complete the 'high' and 'secondary' levels of education required for entry to these occupations, but this was more-so in Songkla. If true, then together these points might explain some of the variation between Pattani and Songkla, in the results of this study.

Even if the economic structure is a factor, it cannot fully explain all of the differences between the provinces. In Songkla Province there was no clearly statistically significant relationship between the level of education (elementary or secondary) completed and unemployment, for any gender or religious group. However, in Pattani Province the Muslims differed from non-Muslims in employment outcomes associated with secondary level of education. Figure 2 reveals that, in Pattani it is Muslims, not non-Muslims, who are more likely to be unemployed after they have completed secondary education when compared to those who completed only elementary education.

In Pattani Province in general, completing secondary education after elementary education made it less likely that unemployment would be avoided, however, in some districts completing secondary education clearly was an advantage in gaining employment, at least for the non-Muslim segment of the population. In three districts of Pattani Province (Mayo, ThungYangdeang and Kapho) none of the non-Muslim population who had completed secondary education were unemployed. Most of the population in Pattani is Muslim whereas most of the population in Songkla is non-Muslim, but this study did not examine the significance of the relative ratios.

Various aspects of Muslim culture in southern Thailand deserve further attention. One is that a significant and increasing proportion of Muslim students attend Muslim secondary schools in Pattani Province. The question of whether or not the different curriculum in those schools influences employment prospects invites further study.

Further investigation of the education/employment relationship is especially important because where unemployment follows secondary education there is likely to be increased disillusionment and lack of social integration into the broader society. This might worsen the political situation in southern Thailand.

5. Conclusion

The conclusions are as follows:

- a) Students in Thailand are usually encouraged to continue on from elementary education to complete secondary education. This appears to have some justification in light of the findings of this study, that completing 'no education' led to less likelihood of being employed, and completing a 'high' level of education led to a greater likelihood of being employed, when both were compared to having completed elementary education.
- b) However, in this study it was found that in Songkla Province that there was no significant employment advantage in completing secondary education and in Pattani there was actually a statistically significant disadvantage for gaining employment, based on comparisons with completion of elementary education only, associations measured by estimated Odds Ratios. The finding for Songkla was surprising. It was even more unexpected to find that in Pattani the completion of secondary education was associated with the highest rate of unemployment, higher than for those who had completed elementary education and also higher than for those with no education completed.
- c) Further study of this education and employment relationship in more detail is desirable. If this issue is not addressed then for many in southern Thailand there might be limited incentive to complete secondary education and also limited social integration.

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Table 1. Employment rate by age and occupational group in Pattani and Songkla Province

Age group	Unemployed		Agriculture		Elementary		Professional	
	Pattani	Songkla	Pattani	Songkla	Pattani	Songkla	Pattani	Songkla
25-29	20.5	16.6	33.6	25.5	28.1	31.1	17.8	26.8
30-34	14.8	12.4	39.5	29.9	27.1	32.7	18.6	25.0
35-39	12.4	10.7	41.0	32.4	26.2	31.3	20.4	25.6
40-44	11.1	10.0	42.6	34.4	24.1	29.5	22.2	26.1
45-49	10.8	10.3	49.4	39.7	20.7	27.0	19.2	23.0
50-54	13.1	13.1	52.5	43.7	18.0	23.8	16.4	19.3
55-59	17.6	18.0	55.8	47.8	15.1	19.0	11.6	15.2
Total	14.6	12.8	42.7	34.0	24.2	29.1	18.6	24.1

Table 2. Means and standard errors of age-group adjusted log odds ratios associating unemployment status with education completion by gender, religion and region in Songkla and Pattani provinces

	region	Muslim						Other					
		mean			standard error			mean			standard error		
		none	second.	high	none	second	high	none	second.	high	none	second.	high
male	P1	0.881	0.231	0.644	0.090	0.085	0.087	1.277	0.477	0.669	0.246	0.123	0.107
	P2	0.539	0.457	1.225	0.182	0.147	0.189	1.894	-0.114	0.606	0.214	0.130	0.116
	P3	0.477	0.522	1.197	0.103	0.119	0.177	1.712	0.194	0.096	0.434	0.211	0.219
	P4	0.685	0.593	0.913	0.100	0.086	0.115	2.541	0.324	0.127	0.230	0.154	0.154
	P5	0.551	0.607	1.446	0.109	0.104	0.148	1.283	-	-1.393	0.892	-	0.470
	P6	0.602	0.349	0.468	0.106	0.101	0.142	1.068	-0.577	-0.510	0.445	0.331	0.297
	P7	0.114	0.294	1.047	0.102	0.098	0.123	1.791	-0.894	-0.230	0.651	0.362	0.312
female	P1	0.133	0.027	-0.865	0.053	0.055	0.066	0.570	-0.472	-1.787	0.124	0.057	0.056
	P2	0.205	0.970	0.746	0.106	0.105	0.176	0.760	0.387	0.374	0.147	0.090	0.079
	P3	-0.140	0.404	-0.254	0.060	0.098	0.185	0.558	0.324	-0.838	0.311	0.132	0.120
	P4	0.052	0.325	-0.187	0.050	0.058	0.102	0.480	0.103	-0.771	0.189	0.105	0.099
	P5	0.298	0.787	0.961	0.069	0.087	0.150	0.996	1.012	-0.438	0.861	0.312	0.305
	P6	-0.147	0.481	-0.464	0.055	0.064	0.098	-1.087	0.170	-1.082	0.498	0.216	0.204
	P7	-0.207	0.751	0.154	0.058	0.071	0.118	0.282	0.410	-0.928	0.476	0.186	0.175
male	S1	1.291	-0.740	-0.604	0.143	0.120	0.138	1.176	-0.401	-0.597	0.096	0.044	0.043
	S2	1.163	0.365	1.617	0.172	0.142	0.164	1.928	0.175	0.792	0.176	0.122	0.115
	S3	1.291	0.887	1.514	0.370	0.276	0.388	1.848	0.467	1.294	0.234	0.156	0.152
	S4	0.846	0.303	1.207	0.170	0.167	0.196	2.176	-0.067	1.225	0.249	0.205	0.170
	S5	0.721	0.500	1.996	0.210	0.292	0.323	2.082	0.646	1.281	0.273	0.200	0.204
	S6	1.019	1.353	3.924	0.621	0.462	0.476	1.782	0.490	1.047	0.113	0.064	0.066
	S7	1.887	0.745	1.575	0.308	0.257	0.266	1.738	0.492	1.074	0.181	0.119	0.116
	S8	1.403	0.219	1.059	0.167	0.169	0.202	1.379	0.262	1.003	0.128	0.102	0.099
	S9	0.966	0.041	0.467	0.181	0.127	0.134	1.262	0.175	0.340	0.071	0.042	0.039
	S10	1.234	0.293	0.443	0.302	0.225	0.321	1.713	0.180	0.919	0.244	0.192	0.190
	S11	1.395	0.338	1.302	0.178	0.214	0.249	1.736	0.538	1.131	0.168	0.101	0.110
female	S1	0.611	0.109	0.001	0.132	0.113	0.112	0.325	-0.067	-0.979	0.060	0.033	0.030
	S2	0.605	0.264	0.482	0.085	0.096	0.149	1.059	0.369	0.589	0.114	0.092	0.078
	S3	0.126	1.146	0.889	0.191	0.186	0.345	0.438	0.583	0.683	0.146	0.093	0.093
	S4	0.229	0.343	0.309	0.095	0.108	0.156	0.812	0.609	0.736	0.171	0.129	0.120
	S5	0.375	0.835	1.780	0.140	0.219	0.264	0.645	0.304	0.783	0.203	0.177	0.158
	S6	-0.484	0.367	0.220	0.449	0.277	0.454	0.622	0.335	0.188	0.078	0.048	0.048
	S7	0.195	0.826	0.746	0.199	0.167	0.204	0.574	0.726	0.693	0.127	0.093	0.090
	S8	0.117	0.067	-0.096	0.095	0.102	0.139	0.374	0.794	0.595	0.066	0.053	0.056
	S9	0.171	0.201	-0.198	0.100	0.075	0.085	0.271	0.139	-0.459	0.037	0.024	0.022
	S10	0.029	-0.068	0.309	0.177	0.154	0.234	0.578	0.578	0.490	0.165	0.144	0.159
	S11	0.137	0.231	0.224	0.119	0.147	0.207	0.859	0.323	0.493	0.105	0.078	0.076

Table 3. Odds ratios and 95% confidence intervals for overall associations between unemployment status and education completion in Songkla and Pattani provinces

	education completed	Odds ratio	95% confidence interval
Songkla	none	2.088	(1.998, 2.182)
	elementary	1	-
	secondary	0.997	(0.969, 1.026)
	high	0.684	(0.665, 0.702)
Pattani	none	1.226	(1.181, 1.272)
	elementary	1	-
	secondary	1.348	(1.301, 1.398)
	high	0.811	(0.777, 0.847)

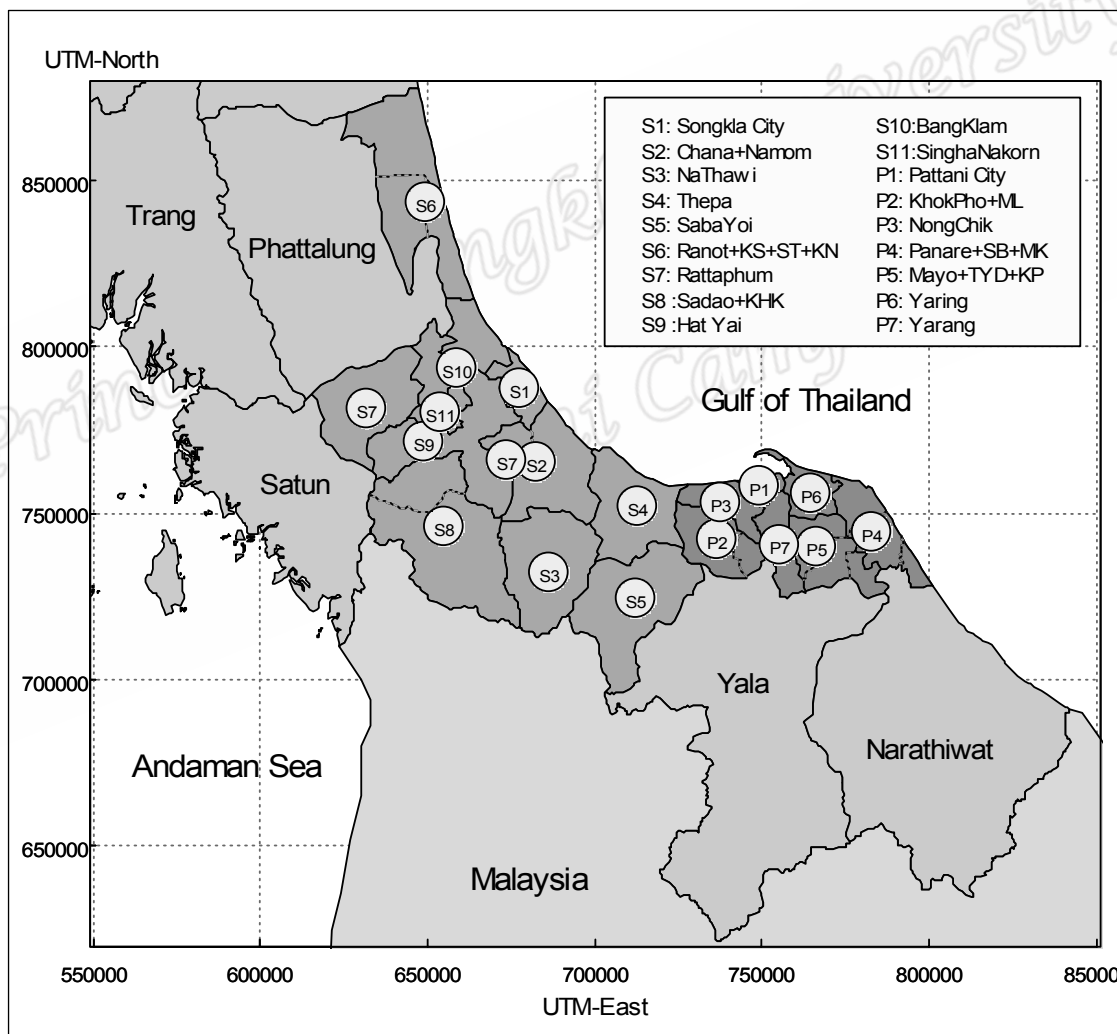


Figure 1. Districts in Songkla and Pattani Provinces with study regions defined by aggregation

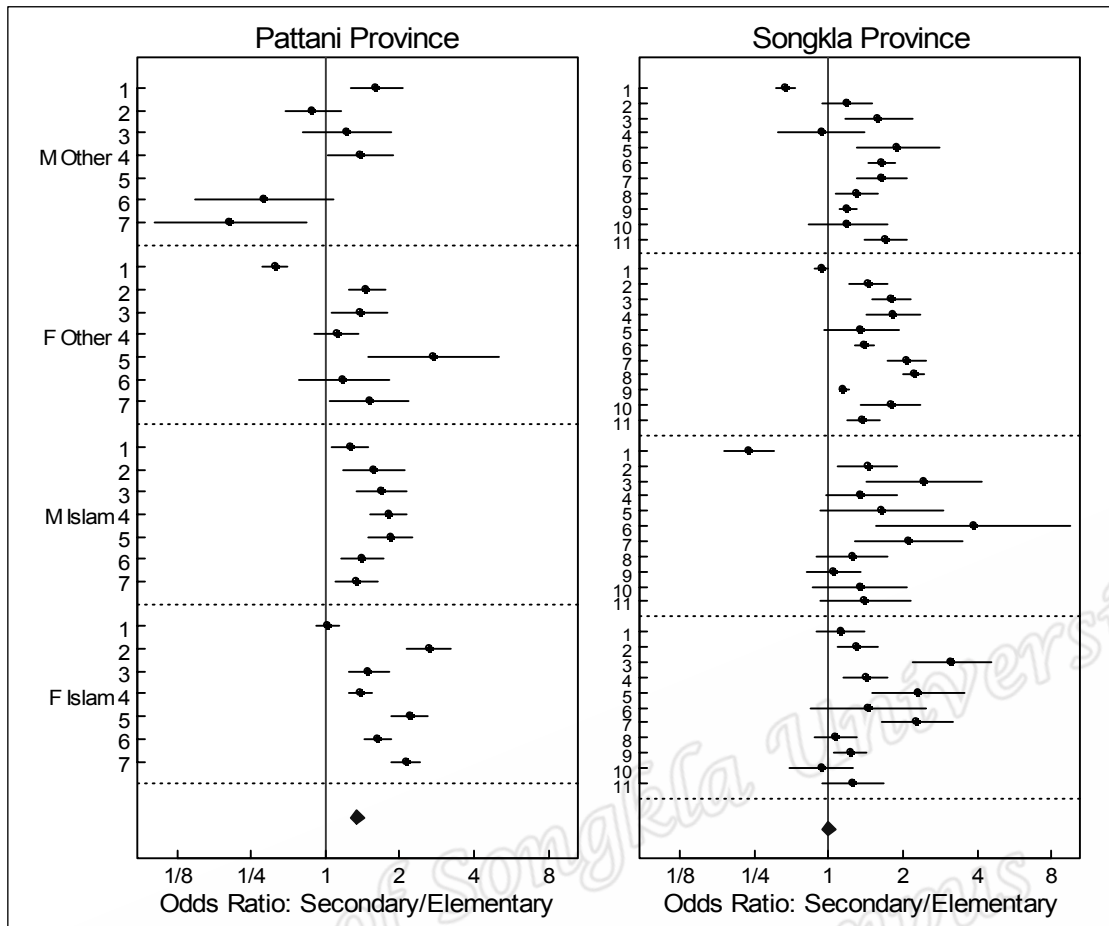


Figure 2. Meta-analysis plots showing the associations between unemployment and secondary versus elementary education completion in Songkla and Pattani provinces

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