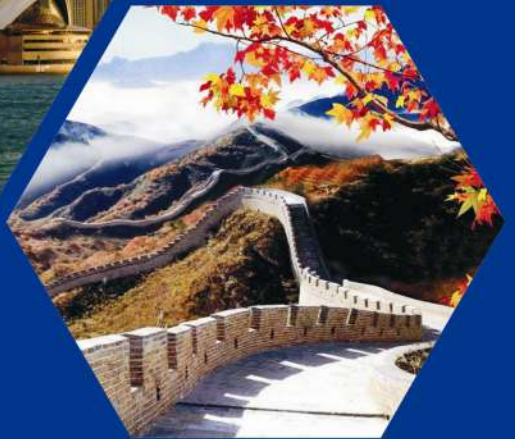


Aussie -Sino Studies

3
2016

VOLUME 2, ISSUE 3, 2016



International Prize Essay for Aussie-Sino Studies



The Journal of Aussie-Sino Studies (JASS) is a multi-discipline, peer-reviewed, open-access, comprehensive international journal (ISSN: 2204-6135; AN: 54116474), which has been approved by the National Library of Australia, and published by the Sino-Aussie Unique Cooperation Centre for Educational Study and Service, Australia. We aim to build a Bridge of Understanding and Cooperation (based on sharing knowledge) between North and South.

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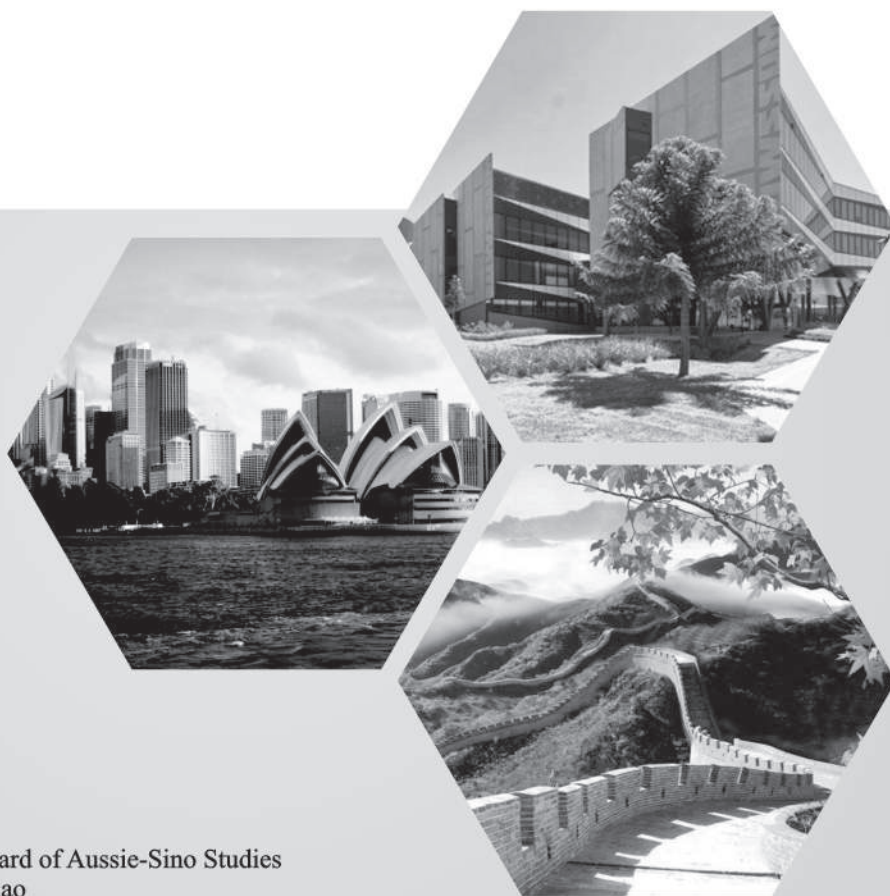
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Aussie-Sino Studies

3
2016



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Indian Ocean as Geo-political Maneuverings Space and Its Consequences on Blue Diplomacy

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(Pakistan Navy War College, Pakistan)

Abstract: Diminishing strength of Royal British and Imperial Japanese naval powers in Indian Ocean allowed the U.S to not only to fill in naval power vacuum in Indian Ocean Region by occupying the important choke points in it. Chinese efforts for securing its sea lanes of communications and the adoption of a new defence strategy by the U.S to sustain the U.S Global leadership by defining priorities for 21st Century in Asia Pacific Region has made the security scenario of Indian Ocean more complex. Chinese plans to show naval presence in Azore Archipelago, Casablanca and Horn of Africa have further sensitized the situation. As per the new defence strategy of January 2012 the U.S plans to augment its naval resources in South Pacific that has implicated upon U.S to get the assistance from Australia, India and Japan to maintain its dominance in Indian Ocean and South China Sea. The recent arrival of another U.S aircraft carrier in Bal-el-Mandeb and North Korean Capability to fire a Submarine Launched Ballistic Missile has further added to security mosaic of Indian Ocean. This paper will analyze the implications of the recent scenario with a view to highlight a few facets of Blue Diplomacy and Security.

Key words: Dominance, security, blue diplomacy and economy

Strategic Value of Indian Ocean

Its littoral states includes; African 15, Asian 24, Australia 4 and Oceanic 2. Inaugural of Suez in 1869 invigorated Europeans interests in Asiatic Rim land (Sharma, 2007), but mostly remained ineffective in founding trade supremacy (Wilson, 1933). Subsequent to World War II Russia and the U.S substituted UK in Indo-Pacific Region (IPR). The U.S has always tried to influence IPR by successfully establishing marine bases on choke points whereas other developing littoral states are also trying to enhance their sphere of influence in Indian Ocean. The Indian Ocean offers principal Sea lanes of Communications (SLOCs) linking with Europe, Middle East, Africa, Asia and Americas. It provides 40% of petroleum from the Persian Gulf oil fields and Indonesia (Shojai, 1995). Large hydrocarbon reserves from Middle East, Iran and Western Australia combined with energy reserve of Central Asian Republics (CARs) have caught the attention of all regional and extra regional key powers for the 'New Great Game'. Strategically Indian Ocean is part of 'New Silk Route' and can be divided into three separate sub regions. First is the Arabian Sea Region which fulfills principal global energy requirements. The principal security concerns of this prudential region are piracy and adversary between two arch nuclear rivals; India and Pakistan which is hinging over a just resolution of Kashmir Issue as per UN Resolution (Matinuddin, 2003) for harmonious waters of Indian Ocean Region (IOR). Second sub region is Central Indian Ocean Region, which is in the domain of Indian inspiration for its power projection. Whole water span is vibrant for inclusive security of SLOCs and coastal areas. India

needs to improve its relations with neighbouring littoral and non-littoral states. Peace and stability in the sub region is pivotal for financial security of complete IOR. Third sub region is Bay of Bengal and Malacca Strait; where India needs premeditated power in the ocean to counter China for which it seeks the help of U.S. Security of SLOCs and Chinese presence in Myanmar and Coco Island is a concern for India, who is looking for U.S support to deal with Chinese emerging power (Dixit, 2001). South China Sea being considered as an antechamber of Indian Ocean is a vital link between Indo-Pacific Oceans so it serves as geo-political maneuvering space so extra regional power is trying to influence it on projected notion of freedom of navigation.

Global Concerns in Indo-Pacific Region

U.S. Concerns

Considering the diplomatic, economic and military implications of Pre-emption Policy the Obama Administration revised the policy and adopted a New Defence Strategy aiming at Sustaining U.S Global leadership, (Julian, 2013) by Cutting down its defense budget to U.S \$ 987 billion over a decade, Maintain its domination in IOR against the Chinese 'String of Pearls Strategy' by shifting 60% of its naval resources in APR by repositioning its vessels to South Pacific (Avery, 2005), To Influence North Korea by establishing base at Jeju Island in south of South Korea and by repositioning its naval assets, so that it remains poised towards Indian and Pacific Ocean including South China Sea (SCS). There are consistent safety worries, vacillating from SLOCs safety to increase in non-conventional weapons. The U.S distinguished China as a substantial geo-political

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anxiety in IOR and a substantial U.S defense spending slash worth U.S \$ 1.2 trillion will consequently causes decrease in U.S potentials to influence IOR (U.S News, 2012). A decrease in dedicated U.S defence capitals and lack of British and French interests may cause power vacuum in IOR (Kamal, 2000) which is likely to shift in U.S defence assets to South Pacific by shifting 60% of its naval fleet to Hawaii (Nate, 2013) so a large part of power vacuum needs to be filled by U.S allies like Indonesia, Australia and India, who can assume greater responsibilities for regional. Presently there are 320,000 US troops are currently deployed in the region i.e. South Korea, Philippines and Japan with a small marine force based in Australia (Simon, 2013). In Darwin the U. S has a naval facility for short time training of its troops before boarding ships to visit and training with other Asian nations (Julian, 2013). Recent deployment of USS Theodore Roosevelt and USS Normandy in Bab-el-Mandeb with ten already deployed ships to dissuade Iranian Ships for delivering weapon to Houthis Rebels in Yemen and for SLOCs protection (Holtz, 2015). The recent North Korean Submarine Launched Ballistic Missile test fire on 8th May 2015 can raise an alarm for the U.S and its allies in the IPR (Jim, 2015). The U.S also has highlighted its concerns over Chinese base construction ventures in South China Sea to make Chinese Air Identification Zones more prudent.

Indian Concerns in IOR

India aims at extending its inspiration across ocean through clientele, capital, and geo-political partnership with U.S, Central Asia and Caucasus (Rizwan, 2013). It also want to have a permanent access to Iranian energy reserves as it houses 10% of planet's established oil stocks and in 2009 India imported 16.5% of its oil from Iran. In the region India is making efforts to Galvanise the U.S-Pakistan ties as per Indian national interests (Bashart, 2004). The establishment of a economic corridor between China and Pakistan have further invigorate the Indian concerns in Indian Ocean for which it can muster support from the U.S. Indian Navy along with U.S operates between Qatar and SCS and also guards two of its offshore island chains of Andaman and the Lakshadweep Islands. India has established bases at Andaman Lakshadweep on the pretext of piracy incidents. Chinese presence at Gwadar, Hambantota and the Great Coco Island in the Bay of Bengal is emerging as Indian security concern. India is asserting to build a Blue Water Navy (BWN); the addition of a leased Russian build Akula-II Class submarine in combination with an air craft carrier have further added to the Indian ambitions. The nuclear propelled 13,500 ton Nerpa that has been leased for U.S \$ 1 billion for 10 years is likely to be based at Vishakhapatnam (Russia, 2013). With the range of 1860 km it can also influence Malacca Strait while being positioned at Nicobar Islands. Indian Navy is presently operating 14 conventional submarines which are likely to increase to 20 with induction of six Scorpenes by the year 2018. The Indian navy is geared up to position vessels in SCS to safeguard its offshore oil interests at Nam Con Son

basin in the southern coast of Vietnam against the global concerns over the likely naval concerns in dubious region (Indian Navy, 2013). Enhancing associations in Africa, Arabian Peninsula and Asiatic Monsoon thus entailing more fuel guarantees for its accomplishment of its aims. India is making efforts to improve its relations with China by peacefully resolving the border issues; however it has concerns over Chinese developmental involvement in Nepal and resolution of border disputes with Bhutan.

Australian Concerns

The futuristic key U.S interest should be to protect Australian ongoing sustenance for the U.S in the Indo-Pacific Rim land. Safeguarding Australian backing for U.S commerce and premeditated posture will lead to prominence. Australian backing for U.S in the region bordering both oceans will be prudent for U.S to check Beijing. Any futuristic U.S issue with China can be a conundrum; however Canberra is unlikely to be away from Washington so there would be no major shift in the relationships between Beijing and Canberra. The U.S should appreciate that the emerging globalisation is not only limiting the all the powerful and developing states but at the same providing opportunities to the developing states to safeguard their interests. The US should learn to share in order to maintain its much desired economic strength. The concept of Zone of Peace and Freedom should have been followed in true esprit (Forbes, 1995).

Indonesian Scenario

Though U.S-Indonesian associations have proved to be little un wanted in past but are likely to improve because of Indonesian financial accomplishments and being part of Malacca Strait; the only three km narrow link between Indian and pacific Oceans. Drift in U.S-Indonesian ties can prove predictable to endure relationships between both entailing Indonesia to find a potent status within U.S alliances.

European involvement in Indian Ocean

Any risk to European shipping in Indian Oceans SLOCs will be a combined security concern for European and Asian economies. The Indian Ocean Region, extending from the Suez Canal to Indonesian Archipelago, is of critical prominence for Europe too. However European interest in the region's maritime space and its security challenges are mostly linked to Bab-el-Mandeb and Hurmoz Strait. As a consequence, the European Union (EU) and other European countries that have territories in the Indian Ocean Region like France, Great Britain is focusing eastwards to share trade across the region. The piracy at the Horn of Africa; south of Gulf of Aden in the Indian Ocean has been a rising threat to security (Ploch, 2010), international SLOCs and shipping its expansion in the Indian Ocean. Piracy is a complex issue that can only be addressed by combining political and diplomatic energies with armed and permissible action, support and strong international coordination. With all these tools at its disposal, the EU is in a unique situation to back the international efforts, and address the challenge through an inclusive approach. The EU help in expanding of trade with CARs companies should

collaborate with economic enterprises to encourage trade and enhancing fuel passage linkages. EU and CARs have common aims to enhance energy safety and transportation as a vital facet for regional safety. Apart from oil and gas hydro-power generation and its management are critical in leading to permanence and affluence in CARs, Afghanistan and Pakistan. The EU should focus on exploitation and up gradation of the prevailing hydrocarbon energy infrastructure via New Silk Route in order to secure fuel supplies; EU should ease the expansion energy passage grids (Karp, Kratz, Ynn Szwaja & Frausto, 2007). This will add to regional and extra regional safeties and collaboration with a view to enhance Blue Diplomacy and Economy.

NATO's involvement in Asia

NATO can pursue defense and security cooperation on wide range of issues. NATO has endorsed Internet linkage between the countries of CARs and Caucasus, called as 'Virtual Silk Highway' venture (Sridhari & V.Iyer, 2012). CARs have recognised political signature with NATO. CARs feature much more prominently on NATO's security agenda. It brought to an acute awareness of the region's importance to the security and constancy. Germany is establishing an air base in Uzbekistan (Coskum & Cusko, 2009). The U.S has similarly one in Manas in Kyrgyzstan and also had a base in Uzbekistan at Karshi-Khanabad (Cooley, 2012). France has a force based in Kyrgyzstan with a logistics center in Tajikistan (Bensahel, 2003), whereas Netherlands is using Bishkek airbase for F-16 airplanes, hence influencing IOR.

British interests in Indian Ocean

Half of naval British resources are located in the Indian Ocean and twenty five per cent of Britain's troops in Afghanistan are part of navy. Consequently financial limitations have compelled British Naval Forces to collaborate with allies. Due to heavy defence budget cuts and persistent operating placements, Recently, British have adopted policy 'Swing', entailing necessity for British Navy to remain malleable with a view to accomplish wide ranging tasks assigned in IOR. Presently there are about 2000 naval sailors are positioned, corresponding to over a dozen warship crews in IOR. British securities in Indian Ocean Region are substantial, which compel British Navy to operate in the Persian Gulf and the Indian Ocean for well over three decades. British are collaborating with regional partner nations involving security assurance. It operates from headquarters either Northwood in England or Bahrain. British Navy also a part of counter-piracy task force operating close to the Horn of Africa through NATO, EU and coalition maritime forces (McKnight & Hirsh, 2012). In the Persian Gulf British Navy maintains four mine hunters, a LSDA, a tanker two warships and a submarine which is a very high percentage of units that are deployed in Indian Ocean Region. The Indian Ocean is vital to UK as it procures 60 per cent of its liquid natural gas from Qatar. Choke points in Indian Ocean Region such as the Hormuz Straits and Suez Canal are all vital to Britain's energy supplies. Despite the sort of immediate reductions the British Navy is still skilled of facing the

Future Naval challenges.

Beijing Concerns in Indian Ocean

In order to offset the effects of rising militarisation in Central Asian Region China has constructed a dynamic Gwadar Port (Mead's Bolg, 2012) in Pakistan at the gate of the most important choke point; Hurmoz Start in the Indian Ocean which will provide China a base in proximity of Hurmoz. The Gwadar port will also provide the facility of being a hub for oil and gas pipelines linking to Central Asian Region to warm waters through silk route and Afghanistan. A marine capability at Gwadar has concluded sensitivities regarding Chinese geo-political aims in the arena. As highlighted by various stake holders possible Chinese militarisation only 500 km away from Hurmoz may offer hoary apprehensions about Beijing's "string of pearls" strategy because of Chinese strategic presence in the Indian Ocean. Gwadar Port as envisaged by Beijing is conventional shipping facility to link landlocked Chinese with Indian Ocean SLOCs. Converting the commercial port into military bases will not only entail massive protection but also convincing Pakistan to tumble a geopolitical strategic balance between Beijing and Washington. Chinese constructed Gwadar and Hambantota Ports have commercial value so pose no security threat to SLOCs. The recent launch of Chinese aircraft carrier has added the anxieties for the U.S and its dependent ally, India over the military challenge springing from the fastest rising Asian giants. The China has accomplished assembly of on the new Chin-Kazakhstan energy pipeline in 2009 along China-Kazakhstan border to Caspian by filling it up from Tengiz Oil Field (Kazakhstan-China oil pipeline, 2012). Beijing has crafted ingress in Myanmar, where China-South Korea syndicate is at threshold of concluding a fuel transporting contract with Myanmar involving several projects such as fuel expansion by construction of harbours and docks, development of oil plus gas terminus, road construction, and pertinent outlays. These energy channels are vibrant component of energy transportation from the Middle East to main land China avoiding its security concerns at Malacca from where thirty per cent of its natural gas and eighty two per cent of its oil transits (Ankit Panda, 2015). Beijing has recently announced plans to construct 810 km long rail linkage between Ruili (China) and Kyaukphyu (Myanmar) via Muse whereas Thailand is involved in building Dawei Port (World Maritimes News, 2012). This port will surely reduce the cost and risk carrying energy supplies and other logistics to China Sea through Kra Isthmus instead of Malacca Bottleneck.

Beijing's initiative to grow its alliance and collaboration with Sri Lanka is prudent for the entire Indian Ocean Region. Chinese enterprises are constructing the Hambantota port in west of Colombo (Davidson, 2010). The foundation stone was formally laid in October, 2007 and construction by China Harbour Engineering Company actually started in January, 2008. It is likely that by 2023, Hambantota will be beefed up by a natural gas refinery, aviation fuel stocking capability within dependent docks facilitating shipment capability combined with ship darning and building. Presently with

new president of Sri Lanka has stopped the work on Hambantota Port due to environmental and procedural issues till the clearance from the Sri Lankan review committee. During his recent visit to China Sri Lankan president has assured the resumption of Hambantota Port Project. Beijing is taking part in development of Maldives and is establishing the Chinese institutions and universities. Other Island like Seychelles, where Chinese President Hu Jintao visited in 2007, Beijing is now training the small island nation's defense forces and providing military hardware such as turboprop aircraft for surveillance. Seychelles has offered the Chinese Navy its territory for a base. Fifteen percent of Chinese oil needs are met through Sudan. China has concluded various oil field development contracts with Iran. Recent Surge of piracy in the proximity of Horn of Africa and situation in Darfur has bugged the China's policy to handle such aggressions. India worries that 'string of pearls' will cause a military handicap to it, may let China to grow associations with the other countries in the IOR, including littoral states like Pakistan. China is venturing to harness the Blue Diplomacy even beyond Indian Ocean in areas of Azore Islands, Nicaragua and Casablanca in Pacific and Atlantic Oceans. The Chinese conflicts in SCS and East China Sea have enhanced anxieties for U.S and India those have no territorial claims over SCS but are viewing it as an antechamber of the Indian and Pacific Oceans. The U.S Secretary of state during his recent visit to Beijing on May 16, 2015 has highlighted that China has reclaimed of 810 hectares of land in Spratly Islands where Beijing has already constructed a military facility of 500 m long air field in disputed Islands. In order to secure its SLOCs from Africa and Europe through Suez Canal Beijing and Djibouti have entered an agreement to allow Beijing a naval base in port city of Obock. (Ankit, 2015).

South China Sea

Paracel Islands are housing only eight Chinese soldiers the cluster of thirty cays and sandbars are enclosed by oil deposits. China, Taiwan and Vietnam have unanimous claims for authority for centuries, which turned into a war after the French pull out in 1956, and the dispute concluded in China defeating Vietnam in the 1974 Battle of Paracel Islands (Ellaman, 2011). The clash over these islets and cays is linked with the disagreement over Spratly Islands in its close proximity. Scarborough Shoal is physically located close to disputed Spratly and Paracel Islets, sand mount has similar dominance concerns like its neighbouring islets. The islets are controlled by Philippines and Chinese place rightover Paracels, Spratlys, and Zhongsha Islets, Taiwan pronounces sovereignty too. The Spratly Islets are a small archipelago consisting of 660 reefs, islets and atolls located in the South China Sea with no habitation for several epochs. Much of these islets are claimed enthusiastically by China, Taiwan, Malaysia, Philippines, Vietnam and Brunei. All these claimants less Brunei have military bases over 45 different islets.

Blue Diplomacy

Oceans are of prime importance for humanity as they are common heritage and have always been a dominant source shaping

civilizations and empires. Waters have always provided access to explorers, traders and invaders. Post world war era enhanced international economic dependence; mostly through seas. Later on by employing nuclear missile firing capable submarine and placing the aircraft carrier groups at various geo-political manoeuvre spaces and choke points in oceans, naval powers transformed war in to deterrence. In consonance with contemporary facets like ever expanding globalisation and global economic interdependence ;oceans are uniting countries into regional and global perspective by vitalizing ever increasing global economic and diplomatic dependence by dominating oceans diplomacy by means of securing sea lines of communications which has converted diplomacy in to Blue Diplomacy. Being bounded by Asia, Africa, and Australia and housing most of the world population and hydrocarbon reserves, Indian Ocean is the most vital part of Blue Diplomacy. Interests of naval powers like China in Indian and Atlantic Oceans and the U.S interests in South China, East China and Australian Seas will further add to economic interdependence of Asian and other global countries through blue diplomacy leading to universalism. In contemporary scenario various regional and extra regional powers are influencing in IOR which is influencing diplomacy and the economic interdependence.

Indians are alarmed over the string of pearls as it will put India to a military handicap. Absence of grand Indian policy might let China to grow associations with littoral nations of Indian Ocean so it will be compelling for U.S to enhance its alliance with India to counter Chinese inspiration in the Region. Chinese base constructing determination is principally defensive in nature which is designed to offset Chinese SLOCs weaknesses by positioning naval assets at bottle necks and vital ports. Beijing has supported naval bases to secure Chinese commercial securities in Indo-Pacific Region. Every country reserves the right to grow its diplomatic associations in neighbourhood and in geo-political zones. Chinese are perusing a vibrant policy to profess itself as a reliable associate of nations nearby India. Pakistan being a trusted friend can be helpful to develop strategic stronghold around India. Chinese are constructing a signal intelligence setup on Great Cocos Islands only 241 km away from Andaman Islands allowing China to screen Indian communications and missile bases at Orissa and Andaman Nicobar Islands observing and influencing 6 and 10 degree channels. In Persian Gulf Gwadar Port, which was constructed with Chinese help, is being managed by Singapore based Port Singapore Authority. The U.S and India are observing these with specific anxieties. U.S and India have no territorial claims but South China Sea is being viewed "as an antechamber of the Indian Ocean," which has raised the concerns in Beijing. The U.S is raising navigational concerns in South China Sea where as China has not stopped any shipping activity in international waters. China and Thailand have already planned to dig canal across the Kra Isthmus linking South China Sea the Bay of Bengal. However Kra Canal will link South China Sea Bay of Bengal, thus securing it SLOCs against US 7th Fleet in

Malacca Strait and Pacific Ocean. The Europe including NATO and EU, who are already finding it difficult to maintain their economic and strategic unity should have harmonious policies and designs towards developing countries, specially littoral states of Indian Ocean so as to make them strong enough to develop and share their resources. Considering the Chinese activities in SCS to build military bases in Sparty Islands Archipelago by reclaiming the land, the U.S is likely to deploy some naval vessel in international waters in close vicinity. In order to resolve the conflicts in SCS in first place China should depict its outer limits of Exclusive Economic Zone and claims for Islands for which it claims the sovereignty this would give a clear picture to other claimants and the world and in second place pragmatic efforts can be made to resolve the issues by dividing the Islands or by allowing a claimant to control the Island for a specific time period. Considering the various issues in oceans around the globe it is suggested that all the conventions on sea laws should be formulated and should be implemented as rules to make the oceans as harmonious waters.

Conclusion

There is 'dynamic power vacuum' in Indian Ocean hence creating it an 'arc of instability'. U.S is believed to be an only super power, however, in the distant future the space is likely to be encroached upon by China which is fast emerging as a equilibrium power. China is pursuing a strategy of keeping its SLOCs secure by pursuing the 'String of Pearls' for its energy securities in a U.S dominated IPR. The recent Indo-U.S strategy to work in collaboration to dominate Indian Ocean gives the right to all littorals states to safeguard their strategic interests. Apart from securing the port along the coast from Hong Kong to Cape Agulhas, China has the right to construct Kra Canal linking South China Sea and the Bay of Bengal, hence securing it SLOCs in Malacca Strait and East Pacific Ocean. Noticeably it is necessary for U.S to review its geo-political role in Indian Ocean; consequently there are worries about the increasing Chinese influence. The U.S is trying to keep its sole status of super power and China is probing for resources to sustain their economic and diplomatic drive. Historically, it is the search for energy resources that has led to the establishment of realms. The U.S, China and India are not looking for territorial conquests but to bring states under their influence to back their finances and geo-strategic interests. In order to have 'Harmonious Water' as envisaged by the Chinese President International and regional key players must act for harmonizing the SLOCs of Indian Ocean instead of influencing those. The harmonious waters can usher an era of development and security the Indian Ocean Region and world. The developed nations like U.S and forums likes NATO, EU and SCO can help and influence theses littoral states to resolve their disputes for a developed and a harmonious Indian Ocean Region for better economic interdependence and blue diplomacy.

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The Two War Proclamations Written by Luo Binwang were Happened in Xian-heng Years: A Discussion With Professor Zhao Xinyu

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Abstract: Luo Binwang is one of the Four Great Poets of Early Tang Dynasty. His career ups and downs. In his middle-aged army experiences there are many records in the western ethnic areas about the battles of the Tang Gaozong and Wu Zetian era. Among the more famous there are two war proclamations called 'In Yao Zhou region defeated the rebellion Liunuo Shenong Yangqian's announcement' and 'Once again defeated the rebellion with Shemengjian notice'. The two proclamations are central to the military war Bulletin of the Southwest National Area. But in an authoritative book on the history of the nation *A brief history of Naxi nationality* said that the two war proclamations were written in Yong-hui years. However, the author of this thesis look for a lot of materials and get the conclusion: The two war proclamations written by Luo Binwang were happened in Xian-heng years and discussion with Professor Zhao Xinyu, the author of the book <A brief history of naxi nationality>.

Key words: history of Naxi Nationality, Luo Binwang, war proclamations, ethnic groups in Southwest China

Introduction

National press April 2008 published the book <A brief history of naxi nationality >, the second chapter (Naxi society of ancient times to the Tang and Song dynasties) of the third quarter (with respect to the beginning of 3-10 century Moxie area's changes), the third part (the analysis and the rise and fall of the Tang dynasty the imperial edict of Naxi society) when discussing about 'Shuang-she 'has been mentioned in Zhen-guan 22nd year (648), Yong-hui fifth year (654), Tang dynasty twice for Shuang-she area in fighting. Specific see page 36 in the book. They talk about the second namely Yong-hui years war mentioned the two war proclamations written by Luo Binwang, quotations from the collection of Luo Binwang, volume 9 'In Yao Zhou region defeated the rebellion Liunuo Shenong Yangqian's announcement' and 'Once again defeated the rebellion with She-meng-jian notice' , The four series. According to the author of the various historical data and the latest research results refer to the two war proclamations written after the war is not Yong-hui years but Xian-heng 3rd year (672) to Xian-heng 5th year (674). (The Naxi history writing group, 2008. 29-41) ,As shown in the following materials:

Material 1

Emperor Xian-heng first year (670), Luo was 52 years old. At the end of this year Luo maybe no longer served the original office. Just at April of this year Tibetan border violations, occupied Kucha, abolished the four towns in Anxi preparation. The court sent troops to crusade. Luo gave a letter to Li-bu Lang Pei Xingjian asking to join the army to the border to fight the war. He arrived Western in the fall. Emperor Xian-heng 2nd year (671), Luo was 53 years old.

Luo was still in the Western Army this year. He wrote a group of Poetry to reflect frontier army life. Emperor Xian-heng 3rd year (672), Luo was 54 years old. Luo was still in Western army. Emperor Xian-heng 4th year (673), Luo was 55 years. Luo passed nearly half time to leave the Western Sichuan. He reached the Yao state army and took part in the battle Yao state to quell riots. The army announcement were all written by him. In the fall, he received the emperor's order to demand a return to Chengdu. He immediately returned to Chengdu military. In Shang-yuan 1st year (674), Luo was 56 years old. Luo was officed in Chengdu military. In Shang-yuan 2nd year (675), Luo was 57 years old. Luo left Chengdu back to Chang'an at the end of this year. In Shang-yuan 3rd year (676), Luo was 58 years old. Luo at the first time as a martial arts mastered a book. He created poem <Teikyo chapter >which was known as the swan song.(Luo Xiangfa, 1989-9)

Material 2

Luo had two joining military experiences. They are the experience of the Western army in Xian-heng years and the army of Yao state. Yong-hui years Luo was not in Yao state.(Liu Huairong, 1989-9)

Material 3

In A. D. 672 year, Luo binwang was in the army of Yao state, and wrote 'In Yao Zhou region defeated the rebellion Liunuo Shenong Yangqian's announcement' , 'Once again defeated the rebellion with Shemengjian notice' and the paper for Lee duct offering General Zhao. From this we can know he was in army in the served as a similar Secretary. He subsequently had experience in Southwest frontier national area army .He spent a long time in

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Sichuan to out to see with Sun day by day of kill time. He wrote 'Yu Yizhou Li Zhangshi House banquet sequence', 'Erotic Guo Lu Zhaolin-grant' and 'the female Taoist priest Wang lingtai Princess gifts such as Taoist priest Li poetry'. (Li Houpei, 1999-1)

Material 4

Luo participated in the victory at the Yao state troops. He also wrote two military bulletin. Chen Xi-jin said 'In Yao Zhou region defeated the rebellion Liunuo Shenong Yangqian's announcement' did not get mentioned in the note of the announcement of the old books • Gao-zong history (ji): At Xian-heng 3rd year (672) Xinchou day, the three spring lunar new year when the Tang emperor called Liang Zhou and Yi Zhou, a total of 18 States Army(5,300 person), also dispatched Deputy national leader General Liang Jishou to Yao Zhou to defeat an insurgency. The book • biography of southern, said Yao Zhou called Yong-chang ethnic tribes in betrays the country Xian-heng 5th year(674), Deputy General of the Tang emperor sent Liang Jishou made Yao Zhou military Chief, to subjugate them. Recorded in the new book of Tang emperor Gao-zong : the war of Yao State once and for all. So it can be inferred, 'In Yao Zhou region defeated the rebellion Liunuo Shenong Yangqian's announcement' writing was during the Xian-heng years.

Luo wrote a song called 'In the military march is very tired poem'. This poem was written in Xian-heng 3rd years(672), when Luo joined the army in the process of writing from Sichuan to Yao state. From this we can know, Luo is to participate in the war. Data recorded during the war in the New Tang Gaozong in Yao state occurred just this time. This can be inferred, 'In Yao Zhou region defeated the rebellion Liunuo Shenong Yangqian's announcement' the writing was on the Xian-heng years.(Liu Yangyang, 2011)

Material 5

In 1990 Wang Zeng-bin wrote < Luo Binwang system test > . From it we know that Luo Binwang Xian-heng 3rd year (672) to Yao state's forces, participated in the Crusade called Meng-Jian who is the national leader of the rebel military action, the army's military briefing is written by Luo Binwang. In Shang-yuan 3rd year (676), Luo Binwang 49 years old, in the south of the Yangtze River played a few months after in Chang'an as Wugong registrar's office, writing <To officials of the Ministry of Pei Shilang reply> and creation poem < Teikyo article > was hailed as a masterpiece.

Zhang Zhi-lie wrote the thesis < chu-tang-si-jie chronicle > . From it we know that Luo Binwang about in Xian-heng 3rd year (672), in the front lines of the war happened in Yao state, writing the several military briefing; about Xian-heng 4th year (673) to southwest, until Shang-yuan 2nd year (675) fall back to Chang'an, in Sichuan spent two years. In the lantern for three years when was appointed martial arts registrar, Pei Xingjian appointed him as secretary. Because of his mother's body is not good Luo go and take care of her, writing <To officials of the Ministry of Pei Shilang reply> and creation poem < Teikyo article >, known as the vast sing.(Du Xiaoqin, 2001-12)

Material 6

'In Yao Zhou region defeated the rebellion Liunuo Shenong Yangqian's announcement' was written by Luo Binwang in Xian-heng 3rd year(672). It mainly recorded the Tang army first defeated the Er River Lan Cang area original attachment rebels of the Tang Dynasty. 'Once again defeated the rebellion with Shemengjian notice' was also written by Luo Binwang in Xian-heng 3rd year(672), mainly recorded the Tang Army the second time beat the Er River Lan Cang area original attachment rebels in the Tang Dynasty. Originally recorded in < Luo Official book > Vol. 4, < wen-yuan-ying-hua > 467 etc.(Guo Shengbo, 2009-5,449-458)

Material 7

Tang emperor Xian-heng 3rd year (672) lunar January, The official of the government of Yang Gua Zhou Cishi Meng-Jian rebellion which is under the jurisdiction of the Yao state government. The jurisdiction court sent Liang Jishou punitive, Luo Binwang joined in the army. After arduous battle victory, Luo Binwang wrote 'In Yao Zhou region defeated the rebellion Liunuo Shenong Yangqian's announcement' . The rebels defeat after the Department convened more than against. Army of the Tang Dynasty again to quell the rebellion. Luo Binwang wrote 'Once again defeated the rebellion with Shemengjian notice' .(Lu Zhengqing, 2014-7, 99-107)

Conclusion

The two war proclamations written by Luo Binwang were happened in the Xian-heng years rather than the events that occur in Yong-hui years. The two war proclamations records the Xian-heng years of the court to send troops to quell the Yao Zhou Er River Lan Cang area national leader of the rebellion.

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Assessing the Interaction between the Macro Economy and the Mortgage Market: Evidence from Ghana

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Abstract: The mortgage market is crucial to the housing delivery system largely due to the huge financial requirement for housing production. Applying a multiple linear regression model on a monthly time series data for the period 2007 – 2015, this study investigates the influences of the macroeconomic environment on the performance of the mortgage market. The findings of this study suggest that the macro-economic environment is crucial to the development of the mortgage market. The study results show that exchange rates have a negative and significant relationship with the growth of the mortgage market. Also the study finds significant influences of income and inflation rates on mortgage originations. This study suggests that a stable macroeconomic environment is crucial in any effort to develop a vibrant mortgage market.

Key words: Housing finance, mortgage, macroeconomic factors, income levels

Introduction

Housing is treated as an essential human need in every society all over the world. There are arguments to the effect that improved housing markets will not just serve direct consumption benefits but also will provide a number of positive externalities. For instance, the construction of a new housing unit through a production multiplier could increase the aggregate output in an economy (BoG, 2007). Zhu (2001) asserts that housing generally accounts for a chunk of the wealth of a typical household's wealth and this is particularly so for 'low-income households'. In relatively high inflationary environments, investors have the tendency to shift their investments 'away from money markets to the goods market' as a hedge against the risk of negative real returns (Zhu, 2001). Also, housing serves as collateral for borrowing by homeowners. This implies that housing generates funds for other investments and provides further wealth creation avenues (Zhu, 2001). In addition to the economic benefits of housing, literature (for example, Rohe, Zandt, & McCarthy, 2001) documents that housing has a positive influence on the social well-being of the populace. For instance, Rohe, Zandt & McCarthy (2001) show that the extent to which people are satisfied with their homes and neighbourhoods determines the extent of their productivity at work.

Economic and finance literature until recently, appeared to have treated housing development and consumption as one of the several consumption/investment goods. Indeed the interactions of housing markets with the macro economy seems to be subtly ignored by mainstream economics and finance research with some of the theoretical and empirical research only including "macroeconomic variables as exogenous control variables" in the models to examine the dynamics in the housing markets. However recent researches in finance appear to have had as a primary focus the influence of

macroeconomic factors on the housing industry as "literature on consumption based asset pricing and studies on the equity premium puzzle" began to surface (BoG, 2007).

Boamah (2011) argues that the prevailing macroeconomic environment is crucial to the ability of nations to deepen the housing finance market and to realize the enormous benefits therein such an effort. Thus, Sandilands (2002) noted that it is incumbent upon policy-makers to get the macroeconomic conditions right in the pursuit of an enhanced housing market. Any instability on the macroeconomic front affects negatively the housing market and housing finance (Richupan, 1999). Waigel (2000) asserts that, factors such as national and international economic trends, interest rate, price stability, and exchange rate are all significant determinants of housing finance. These factors according to Gyamfi-Yeboah & Boamah (2003) are very crucial for the attainment of a vibrant mortgage market. Generally countries that experience a more stable macroeconomic environment are associated with a deeper and well-grounded housing finance system (Warnock & Warnock, 2008).

The debate on the dynamics of the interaction between the housing industry and the macro economy remains under explored. Again most of the previous studies applied largely qualitative techniques in examining the effect of the macroeconomic environment on the development of the housing finance market (Boamah, 2011). This current study employs a quantitative approach and seeks to investigate the effect of macroeconomic factors on mortgage market activities using data from Ghana. Onibokun (1985) echoed the constraint of finance in housing development and Fashakin (1998) as cited in Ayeniyo (2011) suggested the need to strengthen the co-operative housing system in an effort to ease the financial constraints in the housing delivery system. Levine (2007) hypothesized that the provision of housing cannot be successful if a nation does not have a well-developed mortgage market. Further, Kyereboah, Coleman, & Agyire-Tettey (2010) held that one major

strategy often advocated for improving access to housing in an economy is to facilitate the development of a vibrant and efficient mortgage market.

The Bank of Ghana (2007) indicated that relative to most advanced countries, the housing industry in Ghana is at a rather fundamental stage. The housing industry has attained a critical developmental headache for policymakers as rapid urbanization as well as a fast evolving middle-class group has prompted high property prices in most urban communities. Policy makers are not just confronted with the issue of prices of houses but also how the required funds are sourced so as to satisfy the ever growing demand for housing in Ghana. The UN Habitat (2011) indicated that the housing deficit in Ghana is estimated at more than 1 million housing units, and growing by up to 70,000 units a year. The mortgage market in Ghana has achieved some moderate improvement since 2004 with the Bank of Ghana (2007) documenting that mortgage debt outstanding grew from 2.5 per cent in 2004 to 3.9 per cent in 2006. This is a significant improvement if compared particularly to the record of less than 0.1 per cent of GDP for Russia. Nevertheless it is streets apart from the range of 7-15 per cent recorded in most other middle-income countries (BoG, 2007).

A good number of the studies on the influence of the macroeconomic environment on the mortgage market have focused on inflation and exchange rate stability (Boamah, 2009; Boleat, 2008). Aside inflation and exchange rate, this study includes other factors such as interest rates and income levels in the investigation of the relationship between the macro economy and the mortgage market.

The remainder of this paper is organized as follows: Section 2 surveys the literature and provides an overview of existing evidence on the effects of the macroeconomic environment on the growth of the mortgage market. In Section 3, the study discusses the methodology employed and the model specification. Section 4 provides a description of the data. Section 5 presents and discusses the main results. Summary of the study and some concluding remarks are made in Section 6.

Interactions of the Mortgage Market with the Macro Economy

Extant research addresses the interactions of housing market with the macro economy with particular emphasis on the implications of inflation and exchange rate risks on the growth of the macro economy.

Inflation, interest rates and the Mortgage market

According to Boamah (2009), one requirement for a successful mortgage market is a macro-economic environment blessed with low inflation. He argues that inflation at low levels will ensure low and stable interest rates. In an environment with high inflation, lenders seek high interest rates as a buffer against inflation risk that has the potential to erode their purchasing power. In another study, Akinwunmi (2009) posits that a lower frequency and severity of economic downturns make household income more stable and may

contribute to a willingness to assume higher debt burdens and increased attractiveness of flexible mortgage rate.

Chiquier, Hassler, & Lea (2004) identify interest rate risk as a major risk facing the development of mortgage markets. Lenders are exposed to interest rate risk if they offer long term fixed rate mortgages from usually short-term deposits. In other words lenders assume interest rate risk if they take on short term deposits and commit these funds to mortgages that are usually long dated. Lenders may seek to control this risk by using adjustable rate mortgages which transfers the risk to the borrowers. Butler, Kravova, & Safavian (2009) posit that if inflation is volatile, lenders will incur high interest rate risk if they lend at a fixed rate. Lenders may therefore pass the risk to the borrowers through high interest. High rates of interest results in higher default rates and ultimately has the tendency to extinct the lenders' business.

Green & Wachter (2007) emphasise on the availability and cost of mortgages as crucial determinants of a well functioning housing markets across countries. They cited the decline in nominal prime interest rates from an average of 15 percent in 1980 to 4.4 percent in 2004 across several countries as a key factor in the development of the mortgage markets in these countries during these periods. The major outcome of the decline in nominal prime interest rates was improved access to mortgages, increase in demand for housing, and increase in house prices across most of the industrialized countries in the world. Green & Wachter (2007) conclude that the fall in interest rates is critical in inducing higher demand for mortgages. These views were largely corroborated by Huybens & Smith (1998) who argue in their study that an increase in the rate of inflation could have at first negative consequences on financial sector performance through credit market frictions which entail the rationing of credits leading to reduction in intermediary activities as well as capital formation. However, Arcelus & Meltzer (1973) state that even if market rates of interest rise, and the expectations of higher inflation in the long run keep interest rates at higher levels, it would not reduce housing demand permanently. This is because, wages and house prices would adjust to the higher anticipated inflation after a time lag.

Walley, Badev, Beck, & Vado (2013) applied a regression analysis model and report that inflation is negatively and significantly associated with mortgage market development. Inflation volatility was negatively and significantly associated with mortgage depth. Inflation however relates positively and significantly with housing loan penetration, which may indicate the use of housing loans (and thus real estate more generally) as a hedge against inflation, where available. In another study, Warnock & Warnock (2008) used a sample of 61 countries and found that deeper mortgage markets were associated with a stable macroeconomic climate of low and stable inflation.

Exchange rate and the Mortgage market

Boamah (2009) emphasise the repercussion of currency risk to mortgage financing and points out a stable currency is an essential

ingredient for a successful mortgage market. Mortgages are long term loans and according to Boamah (2009), unstable exchange rates will not provide an attractive environment to long-term foreign capital. In another study, Boamah (2011) utilized a regression analysis model to determine the interaction between the mortgage originations in Ghana and macroeconomic factors such as inflation, interest, and exchange rates. The study found exchange rate as the only significant macroeconomic factor influencing mortgage originations in Ghana. Boamah (2011) explained that the significant relationship between exchange rates and the mortgage market in Ghana was largely due the fact that mortgages in Ghana were denominated in foreign currencies (United States dollar) and that mortgagees focused on Ghanaians whose incomes are indexed in foreign currencies. He noted further that the act of denominating mortgages in foreign currencies has resulted into resident Ghanaians being virtually priced out of the mortgage market. The situation is compounded by the rather volatile exchange rates in the country.

Income levels and the Mortgage market

Mortgage lenders are concerned with the prospective borrower’s ability to pay so they require that the potential borrower should have not only sufficient but also consistent income (Mogaka, Mboya, & Kamau, 2015). The requirement to have a stable income is the very first criterion and other requirements like collateral become irrelevant if this is not met. Gelfand (1970) argues that lenders cannot provide mortgages only to have a foreclosure on their hands soon afterwards. De Soto (2000) documents that the requirement for consistent and stable income streams only restricts mortgage finance to households with adequate levels of income or savings and the poor are excluded automatically from mortgage financing. IDB (2005) however finds that home ownership among low income households is very high in Latin America and such households have very good quality housing. Thus, low income household may not be able to afford a mortgage but through self-build, they are able to have homes over time without borrowing from any financial institution. Therefore, a lender may perceive a high risk of non-payment due to the asymmetric character of information, even if the borrower has the ability to pay. The instability of the borrower's income however raises the risk of default on instalments while the loan is in effect, even when the borrower might have the ability to pay (IDB, 2005).

In a study of the mortgage market in Kampala, Uganda, Mugambe, (2009) observed that financiers would seek for proof of regular source of income preferably in permanent employment and would lend to those who can afford monthly repayments not exceeding 35% of the borrower’s monthly income. These financiers could only finance up to 70% for urban areas housing and up to 60% for housing in other areas. Mugambe, (2009) argues that the low levels of income and presence of a large informal sector constrain

the development of the mortgage market. The presence of a large informal sector often makes it difficult to estimate the potential borrower’s income.

Methodology

This study took into considerations the findings of Boamah (2011) for Ghana on the influence of inflation and exchange rates on the mortgage market. In terms of macroeconomic variables, this study follows Mogaka, Mboya, & Kamau (2015) to include income levels and interest rates as other factors affecting growth of the mortgage market. Also, unlike Boamah (2011), this study utilised monthly, rather than annual data for the most recent period, spanning 2007 to 2015. The expanded time series should allow for a deeper insight into the issue by studying the extent to which the macroeconomic environment provides a satisfactory explanation of the performance of the mortgage market.

In this study, secondary data in the form of time series was used. The data for this study were obtained from secondary sources at Ghana Home Loans. Officials at Ghana Home Loans that were capable of furnishing the required information by virtue of their ranks and files were relied on to provide any other information necessary to achieve the objectives of this study. Also data on macro economic factors were collected from statistical bulletins and other reports published by the Central Bank of Ghana and the Ghana Statistical Services. Ghana Home Loans is a major mortgage lender in Ghana. The data used were monthly data and covered the period 2007 to 2015. The data comprises of approved mortgage loans, Cedi / Dollar exchange rates, interest rates, inflation rates and incomes of potential borrowers.

Multiple linear regressions have been the methodological approach employed by previous studies to examine the effects of macroeconomic variables on mortgage originations. Thus the relationship between the macroeconomic factors and the mortgage market is estimated in the following regression model.

Where

- represents mortgage financing at time t;
- is the intercept
- is the exchange rate at time t.
- is the interest rate at time t.
- is the inflation rate at time t
- represents income at time t
- is the parameter of independent variables to be estimated
- is the error term

Descriptive Analysis

A summary descriptive statistics of all the variables are presented in Table 1 as follows.

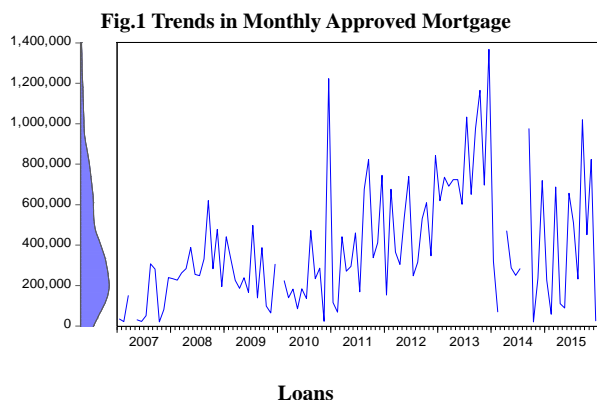
Table.1 Descriptive Analysis

APPROVED LOAN	ER	INF	INT	INCOME
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Mean	387,648.00	1.83	13.24	18.72	39,428.76
Median	291,299.00	1.51	12.70	22.34	23,479.97
Maximum	1,367,945.00	4.19	20.70	27.80	225,289.60
Minimum	20,162.00	0.91	8.39	9.13	563.80
Std. Dev.	296,760.70	0.80	3.92	6.48	43,505.69

The average approved mortgage loan in a month is USD 387,648.00. Total approved mortgage loan in a month ranges from USD 20,162.00 to USD 2,087,045.00 within the period 2007 – 2015. The Ghana cedi remained relatively unstable against the US dollar over the period. On the average the Cedi was exchanged at GH¢1.83 to the US dollar within the period 2007 – 2015. Within the period 2007 – 2013, the Cedi traded as high as GH¢4.19 versus the US dollar. Inflation was relatively high within the period, averaging 13.24 percent and picking at 20.70 percent. Consumer inflation trended into the single digits, recording a minimum of 8.39 percent. Interest rates were relatively high as well, accelerating to 27.80 percent while recording a minimum value of 9.13 percent. On the average, interest rates within the period 2007 - 2015 pitched at 18.72 percent. Income levels were wide apart, ranging from GH¢563.80 to GH¢225,289.60.

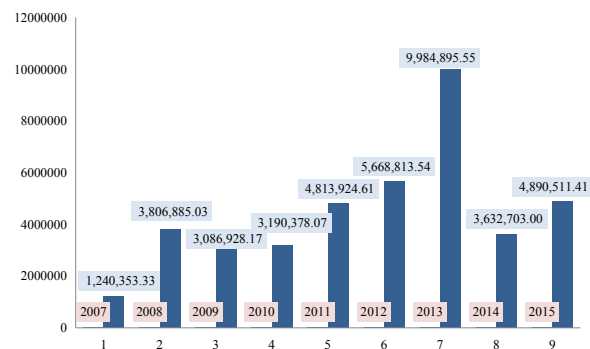
The study presents in Fig. 4.1 as follows the trends in the monthly approved mortgage loans.



Volume of approved mortgage loans increased over time, spiking in the last month of 2010 after recording low volumes in the months preceding December, 2010. Total volume of approved mortgage loans relapsed in January 2011 immediately after picking in the previous month. Total approved housing loans however remained relatively stable and high throughout 2011 to 2013. The years 2011 to 2013 witnessed low and stable inflation and interest rates while GDP growth rates remained relatively high, up-surfing to reach 15 percent in 2011.

This study also considers the trend in the total volume of annual approved mortgage loans and presents the results in Fig. 2 as follows.

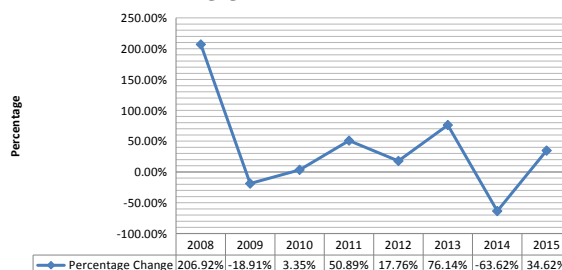
Fig. 2 Total Volume of Annual Approved Mortgage Loan



Ghana experienced in recent years a dramatic growth in the volume of housing loans. As shown in Fig. 2, the volume of approved mortgage loans in the years to 2013 witnessed cumulative growth, though volume of housing loans recorded some dips in 2009 and 2010. It is the opinion of this study that the relative growth in the mortgage market can be attributed to stable macro-economic environment experienced in these years. Inflation was subdued and recorded single digit values in the last half of 2010 through to 2012. Interest rates were relatively low, recording single digit values in the last half of 2011 while GDP growth averaged 8 percent, picking at 15 percent in 2011. Total volume of housing loans however shrank heavily in 2014 after outperforming in a year earlier. The year 2014 witnessed general economic downturn in Ghana as debt to GDP ratios up-ticked at the same time as prices of commodities back pedalled while inflationary pressures remained elevated. In the year 2014, the Ghana cedis recorded huge tumbles in the currency market. The local currency performed woefully against its major trading partners, trading so low to exchange at GH¢4.00 to the US Dollar in the first half of 2015.

Growth in mortgage loans was generally positive between 2007 and 2015 with negative growth recorded in only 2009 and 2014. Linear trend lines as depicted in Fig. 3 shows a positive outlook after growth in housing loans tumbled in 2014.

Fig. 3 Annual Percentage Growth in the Volume of Approved Mortgage Loan



The sharp decline in housing loans in 2014 coincided with generally bearish consumer and investor sentiments. These bearish sentiments were at the backdrop of exacerbated fiscal crises that has led the country to sign a three-year aid deal with the IMF in April 2015. The bitter pill from the fiscal imbalances was compounded by a protracted energy crises and lower commodity prices that ignited Government’s austerity measures with depressing implications for economic growth. Indeed GDP growth rates decelerated from 9.3 percent in 2012 to 7.3 percent in 2013 and 4.0 percent in 2014.

Empirical Results

The study engaged a regression model to investigate the influence of macroeconomic factors on the mortgage market. The

study followed the ordinary least square regression options which are mostly used in literature. The study examined the correlations among the independent variables in order to ascertain if there were any serial correlations. The results are shown in Table 2. There were a number of independent variables that were highly correlated with each other (correlation coefficients of over 0.5) which suggested the presence of serial correlations. A collinearity diagnostics (as shown in Table 3) was performed and low VIFs were found to be associated with the independent variables. They are all less than 10 and the mean VIF is only 2.22. Hence, the key independent variables in the analysis may not be harmful for our research and should not bring serious noise to the results.

Table.2 Correlation Matrix

	Approved Loan	INT	ER	INF	Income
Approved Loan	1.0000				
INT	0.2174**	1.0000			
ER	0.2263**	0.6088***	1.0000		
INF	-0.1044	0.7092***	0.3046***	1.0000	
Income	0.8607***	0.3755***	0.4893***	0.0290	1.0000

Table.3 Collinearity Statistics

Variable	VIF	Tolerance
INT	3.28	0.30
INF	2.32	0.43
ER	1.80	0.55
INCOME	1.47	0.68
Mean VIF	2.22	

Stationarity of the explanatory variables and dependent variable for the research model was tested using Augmented Dickey-Fuller (ADF) test. The results presented in Table 4 indicate the rejection of

the unit root null hypothesis of the stationary of the research variables at the first level. Thus the variables were not differenced in the analysis.

Table.4 Results of the Unit Root Test

Variable	ADF Statistic	P-value	Order of Integration
Approved Loan	-13.8499	0.0001	I(1)
ER	-11.1546	0.0000	I(1)
INF	-5.3857	0.0000	I(1)
INT	-5.4806	0.0000	I(1)
Income	-16.2677	0.0001	I(1)

The results of the regression analysis are presented in Table 5. The F-statistic shows that the overall regression model is statistically significant and is useful in prediction purposes at 1% level of significance. Thus the independent variables used are statistically

significant in predicting the performance of the mortgage market. The results from the regression model denote that the independent variables explain about 80 percent of the variation in the growth of the mortgage market.

Table.5 Results of the Effects of Exchange Rate on the Mortgage Market

Dependent Variable: APPROVED LOAN

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	348417.0	50333.46	6.9222	0.0000
ER	-100073.6	22514.61	-4.4448	0.0000
INCOME	6.501562	0.373667	17.3993	0.0000
INF	-10105.13	5191.078	-1.9466	0.0544
INT	5266.836	3746.215	1.4059	0.1629
R-squared	0.7984			
Adjusted R-squared	0.7902			
S.E. of regression	135912.4			
Sum squared resid	1.83E+12			
Log likelihood	-1374.263			
F-statistic	98.0142			
Prob(F-statistic)	0.0000			

The results show that the macro-economic environment significantly influences the performance of the mortgage market. Indeed, exchange rates, inflation and income levels all have significant effects on mortgage originations in Ghana. The study results show that exchange rates have a negative and significant relationship with the total approved mortgage loans. This finding is particularly not surprising given that mortgages in Ghana are denominated in foreign currencies (mostly in the United States (US) dollars) and a dip in the local currency against the US dollar has a dire implications for the demand for mortgage loans. This may suggest that the exchange rate is a major factor that influences the offer of mortgage loans. This result is consistent with Konadu-Agyeman (2001), Akuffo (2006) and Boamah (2011). The implication of this result is that mortgages in Ghana are probably focused on Ghanaian living abroad or Ghanaians with foreign denominated income. This result lays credence to the contention by Asare & Whitehead (2004) that resident Ghanaians have been priced out of the mortgage market by high exchange rates.

Even though Boamah (2011) reports that inflation is insignificant in explaining mortgage originations in Ghana, this study finds significant influences of inflation rates on mortgage originations. The study results show that inflation is negatively and significantly associated with the performance of the mortgage market. This implies that a stable macroeconomic environment of low and stable inflation is necessary for deeper mortgage markets. This result is consistent with earlier findings by Warnock & Warnock (2008) and Walley et al., (2013).

The results of this study show that interest rates have a positive relationship with the mortgage market performance. It must rather be indicated that this variable is statistically insignificant. Boamah (2011) also examined the relationship between interest rates and mortgage originations and report insignificant results. This result may suggest that a rise in the rates of interest is associated with

higher volume of mortgage loans. This is however contradictory to arguments by Green & Wachter (200&) that a fall in interest rates is critical in inducing higher demand for mortgages.

The results from the regression model also reveal a significantly positive relationship between income levels and mortgage originations. This implies that a prospective borrowers' ability to pay is of utmost concern to mortgage lenders. Thus, borrowers with sufficient incomes are more likely to secure mortgage loans. This result provides support for the findings of Mugambe (2009) and Mogaka et al. (2015).

Conclusions

Despite its recognised economic and social importance, housing finance often remains under-developed in developing countries mainly due to the lack of macroeconomic stability. This study evaluated the influence of the macroeconomic environment on the development of the mortgage market using a monthly time series data for the period 2007 – 2015.

The trend analysis shows that Ghana has experienced dramatic growth in the volume of housing loans in recent years and that total volume of approved mortgage loans increased over time from 2007 to 2014. Linear trends show a positive outlook. The study's results show that the macro-economic environment is crucial to the development of the mortgage market. Exchange rates have a negative and significant relationship with the growth of the mortgage market. The effect of interest rates on the performance of the mortgage market is positive and insignificant. Inflation rates have a negative and significant effect on the performance of the mortgage market. Also the study finds positive and significant influences of income on mortgage originations. Thus, a macroeconomic environment with stable and relatively low inflation, interest and exchange rates is crucial to the growth of the mortgage market. The seeming requirement for consistent income streams may only restrict

mortgage finance to individuals with adequate income levels. Obviously a stable macro-economic environment is fundamental in attracting external funds and availability of long-term finance which is crucial to the development of the mortgage market.

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An Empirical Analysis of the Impact of Exchange Rate Changes on Stock Price: A Research Based on the Financial and Real Estate Industry Analysis

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Abstract: Since 1970s, with the implementation of the floating exchange rate system, the impact of exchange rate changes on the stock market has become an important subject both in industries and scholars. To mitigate the impact of price fluctuations in financial assets on the financial markets and achieve macroeconomic stability, it is necessary to strengthen the research on the impact of exchange rate changes in the stock market, allocate asset for investors better reduce the cost of capital for multinational companies. Also, the monetary authorities have to take appropriate monetary policy measures. The aim of this paper is to carry out a further and in-depth research on the mechanism of fluctuations in exchange in the stock market, also making a discussion on the stock market by providing an estimation model. According to the research data on RMB exchange rates and US dollar index fluctuation from July 22, 2005 to December 31, 2015, the paper carries on a systemic study on impact of exchange rate changes on stock market price industry and other industries in China.

Key words: Exchange rate; stock price; cointegration test; VAR model

Introduction

The data adopts in this paper were gathered from CSMAR database, RESSET database and the Internet. Representative daily data was selected from July 22, 2005 to December 31, 2015. The RMB exchange rate against the U. S. dollar (represented by ER) was adopted under the direct quotation method, namely the amount of RMB exchanged per dollar, without including the impact of inflation and other factors. When it comes to the selection of stock price index, on the one hand, both of the Shanghai and Shenzhen stock markets have a long-term positive correlation, on the other hand, according to the statistics from Statistics of Stock Trading on Nationwide Basis released by the People's Bank of China in 2015, the total market capitalization in the Shanghai Stock Exchange accounted by 68.57% of the market capitalization in the Shanghai and Shenzhen stock exchanges, which is more than twice value as the Shenzhen Stock Exchange. From this perspective, the paper chose the Shanghai composite index with the aim to represent the level of stock prices (represented by SI). ER data was selected from the State Administration of Foreign Exchange statistics database; SI was selected from RESSET database, and US dollar index was selected from the Internet (represented by UI). In order to eliminate the heteroscedasticity of the data sequence, ER, UI and SI were processed by natural logarithm respectively. All data in this paper was processed by MICROSOFT EXCEL and EIEWS7.2.

Research Methods

In this paper, the stability of the data sequences of ER, UI and

SI will be tested firstly, followed by the research of Granger causality to determine whether there is a correlation between the two. Cointegration Test could be help to judge whether there is a long-term equilibrium relationship between exchange rate and stock price. If there is a long-term equilibrium relationship between the two, but is imbalanced in a short term, the short-term error correction mechanism could be analyzed by error correction model. Finally, impulse response function and variance decomposition method could be used to analyze the dynamic effect and variance contribution ratio of error term changes on the system.

Test of unit root

Currently, method ADF (Augment Dickey-Fuller) is widely used in unit root test.

Model 1:

$$\Delta X_t = \delta X_{t-1} + \sum_{i=1}^p \theta_i \Delta X_{t-1} + \varepsilon_t$$

Model 2:

$$\Delta X_t = \alpha + \delta X_{t-1} + \sum_{i=1}^p \theta_i \Delta X_{t-1} + \varepsilon_t$$

Model 3:

$$\Delta X_t = \alpha + \beta t + \delta X_{t-1} + \sum_{i=1}^p \theta_i \Delta X_{t-1} + \varepsilon_t$$

The regression equation of ADF Unit Root Test includes three models: model 1(without constant term), model 2(with constant term), and model 3 (with constant term and time trend term). In the equations above, the lagged term was used to ensure that term of

Fund: Taian Federation Of Social Science Circles Fund.

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the equation is white noise. Wherein the null hypothesis is: $H_0 : \delta = 0$. When the researcher is processing ADF test, model 3 will be test firstly, followed by model 2 and 1. On condition that the null hypothesis is rejected, the original sequence unit root does not exist, and it is a stationary sequence.

Johansen cointegration test

On condition that the sequences of $X_{1t}, X_{2t}, \dots, X_{kt}$ are integrated of order d , and there is a vector $\alpha = (\alpha_1, \alpha_2, \alpha_3, \dots, \alpha_k)$, making $Z_t = \alpha X_t \sim I(d-b), b > 0, X_t = (X_{1t}, X_{2t}, \dots, X_{kt})$, it represents X_T is integrated of order (d, b) . Therefore, if the two variables belong to integrated variables, only if they have the same order of integration, it could be defined as a ‘cointegration relationship’. The economic definition of cointegration relationship is a long-term stable equilibrium relationship which exists between the two variables, even if the two variables having their own long-term fluctuation rules respectively. Conversely, if the two variables are not cointegrated, but having a long-term variation laws, it cannot be defined as a long-term equilibrium relationship.

Test of VAR model

‘Granger causality test’ is utilize to analyze the causal relationship among the time series variables. Granger mainly used to solve the problems of whether variable X is the factor to influence variable Y , and how likely variable A could affect variable B . Also, whether the lagged value of variable X could be used to improve the degree of interpretation has to be considered. Statistically, if the correlation coefficient between variable X and Y is significant, it can be explained that Y is Granger affected by X .

Impulse response function method (IRF) is available to examine VAR model, which demonstrates the dynamic effect of the changes in one error term of the model, or an external impact on the model in the system model.

The variance decomposition is utilized to measure the contribution of endogenous variables in system by examine each of the external impact, which aims to obtain important differences of variable impacts.

Empirical Test Results

Two representative industry indexes were selected in this research, named as real estate index and financial index. The time series were selected from July 22, 2005 to December 31, 2015. In order to eliminate the heteroscedasticity, all data were processed by the natural logarithm. All the sequences below are natural logarithm sequences.

Unit root test

Firstly, the two industry indexes were tested by ADF unit-root-test, results showed that unit root existed in the original sequences. Its first order difference needs to be tested by ADF unit-root-test. Table 5.1 demonstrated that the first order difference in the original sequences rejects the hypothesis about the existence of unit root. Therefore, the first order difference sequence is stable, representing that the two industry index sequences are integrated of order $I(1)$.

Table.1 First-order Differential Sequence Unit Root Test Results

variable	ADF unit-root-test,	1%	5%	10%	P probability	stationeriness
Real estate index	-42.3576	-3.56667	-2.86457	-2.57684	0.0000	Stability
Financial index	-43.4532	-3.56847	-2.86745	-2.57542	0.0000	Stability

Granger causality test

The exchange rate of real estate index and financial index were

carried out by Grainger causality test, which aims to further exclude the possibility of false correlation. Test results are as the follows.

Table.2 Granger Causality Test Results of Exchange Rate in the Real Estate Industry and the Financial Industry.

Null Hypothesis	F-Statistic	Prob
ER isn't DICHAN Granger Causality	3.85645	0.02356
DICHAN isn't ER Granger Causality	7.65482	0.00002
JINRONG isn't DICHAN Granger Causality	0.56875	0.65124
DICHAN isn't JINRONG Granger Causality	1.86457	0.15623
JINRONG isn't ER Granger Causality	7.65213	0.00004
ER isn't JINRONG Granger Causality	6.21453	0.00236

This table demonstrates that, under the situation of 5% confidence level, Granger causality relationships exists between the exchange rate, the real estate index and the financial index; Therefore, as shown in table 5.3 and 5.1, there is there are no Granger causality relationship exists between the real estate industry and the financial industry. However, the correlation degree between is high, which suggests that the exchange rate fluctuations may have a

certain impact on the real estate index and the financial index, and proves the existence of interaction mechanism.

Table.3 Correlation Analysis of Financial and Real Estate Index

Probability	DICAHN	JINRONG
DICHAN	1	
JINRONG	0.95687	1

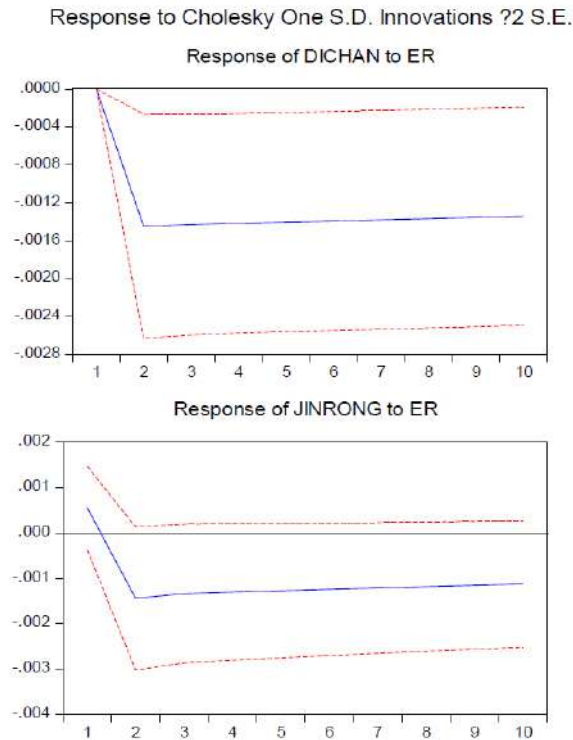
Table 3 and figure 1 demonstrate that the financial index is

highly correlated with the real estate index, with the correlation coefficient of 0.96, and the probability P value far less than 0.05, which approves that the real estate industry and the financial industry are highly linked.

Impulse response function

In order to evaluate the impact of exchange rate movements on the real estate industry and the financial industry, the impulse response analysis method for further analysis will be adopted in this research.

Figure.1 Response of Industry Index to Standard Error Impact on the Exchange Rate



Note: the red line represents the plus or minus two times the standard deviation

Figure.2 demonstrates that the two industry indexes may not produce a response in the first trading day under the impact of the exchange rate on the real estate. However, the two industry indexes react quickly in the second trading day and then reach a high point. Afterwards, a reverse correction emerged, and the response shows a certain duration period in the short term. In contrast, the exchange rate volatility demonstrates a slightly greater impact on the financial industry rather than the real estate industry. The exchange rate proves a certain time lag for the impact reaction on the financial industry and the real estate industry. In a short period, the exchange rate volatility has a lag influence on the financial industry and the real estate industry.

Variance decomposition

The variance decomposition was generated by financial industry index from July, 2005 to December, 2015. In variance decomposition, during the 10 forecast periods, the explanation degree of the exchange rate level for the financial industry index ascends is in a stable state. However, the explanation degree is not high, and its variance contribution ratio to the financial industry remains a level nearby 0.2%; While the explanation degree of the real estate industry index for the financial index is rising, its variance contribution rate will be 46% - 49% predictably. Similarly, the variance contribution ratio of the exchange rate for the real estate industry remains at a level of 0.2%, and the variance contribution ratio of the financial industry index for the real estate industry remains at a level of 50%.

Table.4 Variance Decomposition of the Financial Index

Period	S.E.	DICHAN	ER	JINRONG
1	0.0009205	47.03285	0.025423	52.85929
2	0.0012544	45.92763	0.184610	54.98041
3	0.0015311	45.85054	0.154889	54.86005
4	0.0017538	46.23168	0.225007	53.3263
5	0.0019637	46.65469	0.268064	53.65124
6	0.0021818	47.22834	0.257091	52.81556
7	0.0022785	47.89532	0.284101	51.94957
8	0.0024846	48.45849	0.227100	51.87340
9	0.0026235	49.02476	0.298092	50.16714
10	0.0028569	49.78507	0.281079	50.94085

Table.5 Variance Decomposition of the Real Estate Index

Period	S.E.	DICHAN	ER	JINRONG
1	0.0009701	47.140285	0.04962378	58.6929
2	0.0012544	45.8679763	0.1681081	56.1041

3	0.0015111	45.9480549	0.1788978	58.3204
4	0.0017238	46.8316892	0.2120745	55.7563
5	0.0019737	46.2566922	0.2236453	54.1124
6	0.0021518	47.9723418	0.256914	52.4755
7	0.0022785	47.8683289	0.271011	51.9798
8	0.0024984	48.9744983	0.2620015	51.3401
9	0.00252385	49.960763	0.2899218	50.8671
10	0.00278723	49.8470703	0.2947935	52.5708

Cointegration test

The unit root test demonstrates that the logarithms between the two variables are integrated of order one I (1). The following test will utilize Johansen cointegration test method to measure the exchange rate, the financial index and the real estate index

respectively. According to AIC and FPE (Final Prediction Error) principals, this research determines the optimal lag order number for the cointegration test is 2, and proposes the hypothesis of cointegration equation existing intercept term and having no specific linear trend.

Table.6 Trace Test

Hypothesized		Trace	0.05	
No.ofCE(s)	Eigenvalue	Ststistic	Critical Value	Prob.
None	0.0413441	48.741986	29.845797	0.0001
At most 1	0.00941068	24.570038	15.986494	0.0011
At most 2	0.0041514	7.8752244	3.8468414	0.0067

Table.7 Maximun Eigenvalue Test

Hypothesized		Trace	0.05	
No.ofCE(s)	Eigenvalue	Ststistic	Critical Value	Prob.
None	0.0537362	47.567447	29.675845	0.0001
At most 1	0.0086374	24.764567	15.897565	0.0012
At most 2	0.0044356	7.4567434	3.9865754	0.0054

Table.8 VAR Stability Test

Root	Modulus
0.008496-0.111324i	0.997862
0.008496+0.111324i	0.997862
0.975834	0.975834
-0.006785-0.044656i	0.045674
-0.006785+0.044656i	0.045674
0.03456	0.03456

By the statistics from table above, it can be clearly seen that there is a long-term equilibrium relationship between the exchange rate, the financial index and the real estate index. According to Figure 2 and Table 7, all the unit roots are within the range of a circle of radius 1, which indicat3 that the above long-term equilibrium relationship is stable.

Conclusion

Through the analysis of daily data from 2005 to 2015, researchers realized that China's stock prices are positively correlated with RMB exchange rate volatility and US dollar index, which presents that the increase of the exchange rate and the US dollar index may cause the stock price to rise. However, during the sample period, there is no significant US dollar index on the stock price, which could be argued as the low US dollar exchange rate

volatility cause the commodity price slightly changed, and the domestic market is not sensitive to the small price fluctuations.

This research proves that there is a long-term stable cointegration relationship between the exchange rate and the stock index. Under the background of deepening trend of international financial market integration and future openings of the capital account, the linkage between the two could getting stronger.

From the research results of the exchange rate and the industry index, there is a long-term cointegration relationship between the real estate industry, the financial industry and the exchange rate. In a long run, the volatility of the exchange rate may affect the market performance of the above two industries. Simultaneously, through the analysis of the real estate industry and the financial industry, researchers found that there are two industries having a high degree of relevance, which may because of the loan objects of the financial

industry, especially real estate enterprises such as banks. The formation mechanism of the RMB exchange rate could be further promoted. By a large deal of international experience, the exchange rate overshoots over the last few years may cause an unexpected currency crisis, which may result in a negative impact on the stock market and the real economy of one country. Hence, it is necessary to accelerate the improvement of the RMB exchange rate formation mechanism, relax the floating range of the RMB exchange rate appropriately and moderately, strengthen the floating elasticity of the exchange rate and perfect corresponding measures through the expansion of RMB foreign exchange market's scale, variety and scope of the transaction; and it also needs to broaden the hedging channels, and giving full play to the hedging function of financial derivatives, so as to gradually set up RMB non deliverable forward (NDF) and non delivery options (NDO) trading pilots in domestic banks.

With the deepening of China's market-oriented interest rate, the strengthening volatility, the expanding foreign exchange spot market and the enriching transaction variety, all these create favorable conditions for the development of China's foreign exchange derivatives market. Therefore, China has to gradually establish a relatively perfect trading market regulations and corresponding regulatory systems for foreign exchange derivatives, and speed up the establishment of market system for derivatives.

It is essential to perfect the stability mechanism construction for the stock market and improve the ability of market to withstand risks.

So the short-mechanism and delisting mechanism can be gradually launched. The short-mechanism refers to investor's manipulations and related policies and systems for self protection and arbitrage when they turn bearish on the future tends of stock market or individual stocks. As our stock market is lack of the corresponding short-mechanism, and only buying up but not buying down, a serious internal imbalance is existing between the supply and demand in market, resulting in a unique "unilateral market" phenomenon. This phenomenon may be risk in the financial crisis. Consequently, it is suggested to launch margin trading and stock index futures trading appropriately, and try to explore the suitable ones for our stock market by establishing different plots, also to further protect the reverse trading activities in China's market.

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The Development of an Effective Project Contracts through Process Costing Approach in a Corporate Environment

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Abstract: A costing system is not intended to replace an accounting system. Instead, the system actually works within the broad framework of general accounting system to extract specific data for quick and easy analysis. By making use of cost accounting, it is possible to quickly identify expenditure that were intended to benefit the company, but that are failing to do so in significant way. This makes it possible for owners and managers to make the necessary adjustment to the company's working strategy and exercise a more responsible use of available resources.

Key words: Costing, strategy, accounting system, accumulated cost, hybrid costing system, corporate environments

Introduction

Process costing is used when there is mass production of similar products, where the costs associated with individual units of output cannot be differentiated from each other. In other words, the cost of each product produced is assumed to be the same as the cost of every other product. Under this concept, costs are accumulated over a fixed period of time, summarized, and then allocated to all of the units produced during that period of time on a consistent basis. When products are instead being manufactured on an individual basis, job costing is used to accumulate costs and assign the costs to products. When a production process contains some mass manufacturing and some customized elements, then a hybrid costing system is used.

Examples of the industries where this type of production occurs include oil refining, food production, and chemical processing. For example, how would you determine the precise cost required to create one gallon of aviation fuel, when thousands of gallons of the same fuel are gushing out of a refinery every hour? The cost accounting methodology used for this scenario is process costing.

Corporate Environments

Before the detailed discussion on the process costing systems, it is necessary to understand the context in which this will be discussed i.e., the corporate environments. A corporate environments or a corporation is a business operating as a separate legal entity and owned by stakeholders (Bamber, Harngreen & Harrison, 2006). Corporation exist for several reasons, but the main reasons for a corporation's existence is to remain viable, grow and make profit through the production of both goods and services and as a results, every activity carried out in the corporation should align with this agenda.

Problem Statement

The conceptual and theoretical development of cost accounting

has been at a standstill for several decades, despite its poor state and drastic changes in its environment. The concept of cost itself and related concepts are both unclear and unrelated to relevant concepts in other areas of economics, and several critical issues remain unresolved.

Part of the blame for this state will be attributed those writers and interpreters of several key pieces of the literature, or sets of writings on specific topics. Clark (1923) emphasized on different costs for different purposes in his study and in the economics of overhead Costs. Littleton and Paton (1971) have difficulties in clarifying the cost concept. The American Institute of Accountants' definition of depreciation accounting as systematic and the rational allocating the direct/variable cost and the rejection of cost allocation have been misconception. An effort is made to show how each of those misconstruction are cause by cost accounting.

Research Framework and Methodology

Data on various developments of an effective project contracts was collected from Secondary sources like Articles, Journals, empirical literatures, Textbooks and Internet sources for analyzing the development of an effective projects contracts. Qualitative method was also applied for this research paper.

In this section, a discussion of the methodology used in carrying out the research is framed. The development of an effective project contracts were analysed and qualitative description was used in the analysis, the scope of the study, design research instrument and sources of data.

Descriptive research design and analysis of the various development project contracts were employed to investigate the development of effective project contracts. For the purpose of analysis, a secondary data was used to analyse the various existing developments project contracts.

Structured personal interviews were one of the main data collection method employed. Data were collected from Secondary

sources like internet sources, theoretical and empirical literature and textbooks to analyse the development of an effective projects contracts.

The researcher obtained both primary and secondary data from the various case studies on the analysis of various existing developments project contracts. The primary data was in the form of interviews with the concern officials. Secondary data was in the form of documents obtained from the internet, literatures reviewed and other articles on the developments of an effective project contracts. Qualitative description was the method of analysis.

The research used qualitative data analysis methods, and trend analysis was also used in analysing the various developments project contracts. Trend analysis refers to the an analysis of the developments of an effective projects contract for some conservative years, comparing the differences years within those stipulated periods, and an analysis was performed to evaluate the development of an effective project contract.

Research Framework

A perusal of the literature suggests that its golden age might have extended beyond 1925, perhaps to 1940, as there were a number of interesting contributions to the literature in that 15 year period (Baxter & Oxenfeldt,1968).But they were largely ignored by practitioners and textbook writers. It seems safe to say that the generally taught model of product cost accounting has not changed perceptibly for several decades; whether it is four, five or six decades does not matter. A senior practitioner who learned product costing from a 1940 text might arrive at the same unit cost number in a given situation as a beginner who learned cost accounting in 1987, subject to the range of choice discussed in both eras. The significant differences between 1940 texts and 1987 texts are in the areas of control and ad hoc cost analysis tied to decision models, together with whichever management science, economics, and behavioral science topics the particular authors chose to present in an experimental spirit. As of mid-1987, however, product costing is still in the dark ages.

Evidence that cost accounting is in a period of stagnation can be gathered by reviewing a series of issues on which no obvious progress has been made since 1940. The long history of four perpetually recycled issues, to use (Sterling, 1974, p. 4) expression, and two more fundamental but less debated issues shows that the theoretical development of cost accounting came to a standstill in 1930s, despite much unfinished work, and has not been resumed to this date. Cost accounting was born in the manufacturing industry as a result of the search for a better cost management practice in new product development. It turned out to be a powerful planning strategic instrument for management and profit planning as it helps to ensure that new products and service meet market determined prices and provide financial returns (Cooper & Kaplan, 1999).At the same time it promoted a different approach to design management where cost stops being just an outcome from the product design but

instead becomes an input into process.

Since the 1970s most companies in competitive industries have used some elements of cost Accounting which is especially relevant to the manufacturing industries and project-based industries such as project contracts, military manufacturing and other manufacturing industries. Cost Accounting was one of the factors that contribute to the rapid growth of competitive advantage of Japanese companies during the 1990s.In the western world Crysler and Caterpillars attribute their financial turnarounds in the mid-1990s to the adoption of cost accounting (Ansari, Bell & Okano, 2006).Cooper and Slagmulder (1997) focus on the application of cost accounting as a profit management technique. They define it as a process which ensures a new product can be produced at such cost that allows a planned level of profitability. It is assumed that the company reaches it sales and profit goals, and structures product lines in accordance with those new product development starts with deciding upon product-level costing which is the maximum that can be spent for development, production, sales, distribution and warranty(Cooper & Slagmulder,2004).Costing is not limited to setting process costing. It is an entirely production-line approach to the management of an industry.

The cost accounting system pays special attention to the design and development stage as it taken as a fact that most of the future product costs are formed here. Close collaboration between all the departments and the process costing initially generate project development intersects with the lean concept of simultaneous engineering. Cross-functional teams investigate not only aesthetic issue or functionality of the future production, but also manufacturing, procurement routes and lifecycle performance. To ensure manufacturability for example, production engineers work together with the design team. Sales managers brought into the product development stage are able to give valuable advice on market needs (Tani, 1995).Cost accounting is closely associated with inter-organization cost management practices (Cooper & Slagmulder, 2004).The issue has grown importance with the global trend for outsourcing parts of the production cycle, which results in a higher share of the processing costs in the total product costs. The company's head quarters usually retains the function of setting a cost accounting in defining cost and functionality goals for subassemblies, for example in a car manufacturing firm, the engine, transmission, cooling system, air-conditioning, and audio system are the process costing exercises which can also proceed down to the supply chain, when first level providers invite their suppliers to work on process cost (Anderson, 2006).

Hamada and Monden (2000) reviewing the cost accounting practices employed by Japanese car manufacturers and they noted that it is not the final points of the cost management process. The wider concept of total cost management also includes process costing: thus if cost accounting operates in the developing designing phase, process costing is applied to the manufacturing stage of both to recently developed or already established products. Process

costing is a constant pursuit of perfection via small improvements in process and product which involves all the top levels in the workplace. The costing concept is similar to the cost as an independent variable approach used in the US and to the prices-to-win philosophy used by a number of companies pursuing contracts involving development under contract (Crow, 2002). Summarizing the above, Process costing manufacturing is a strategy applied in a long-term business planning. Normally it includes several other tools and methods, which are sometimes described as self-sufficient and associated with the narrow definition of costing process: value engineering, value analysis, design for manufacturability and assembly, simultaneous (concurrent) engineering, standardization and others.

Main Findings of the Study

The empirical data analysis from the primary and secondary sources has shown the development of an effective project contracts and this was possible due to results from the study enumerated as below:

Costing Systems/Cost Accounting

Costing systems are components of a broader accounting system used by a given company or organisation. Their main function is to keep a focused eye on expenditure made by the company while the data collected and generated are also integrated into the overall accounting systems. The costing approach allows for the data to be easily extracted for reports to top management.

Process Costing Systems

A process-costing system is a costing system in which the cost of a product or service is obtained by assigning costs to masses of like or similar units. Units cost are then computed on an average basis. Process-costing systems are used in industries that produce like or similar units which are often mass produced. In these industries, products are manufactured in a very similar way. The companies usually use the same amount of direct material, direct manufacturing labour costs and manufacturing overhead costs. Process costing is the only reasonable approach to determining product costs in many industries. It uses most of the same journal entries found in a job costing environment, so there is no need to restructure the chart of accounts to any significant degree. This makes it easy to switch over to a job costing system from a process costing, if the need arises, or to adopt a hybrid approach that uses portions of both systems.

Example of Process Costing System

For a process costing example, ABC International produces purple widgets, which require processing through multiple production departments. The first department in the process is the casting department where the widgets are initially created. During a

particular period of the month, the casting department incurs \$50,000 of direct material costs and \$120,000 of conversion costs (comprised of direct labor and factory overhead). The department processes 10,000 widgets during the month, so this means that the per unit cost of the widgets passing through the casting department during that time period was \$5.00 for direct materials and \$12.00 for conversion costs. The widgets then move to the trimming department for further work, and these per-unit costs will be carried along with the widgets into that department where additional costs will be added, hence process costing.

Types of Process Costing

There are three types of process costing, which are as follows:

Weighted Average Costs: This version assumes that all costs whether from a preceding period or the current one are lumped together and assigned to produce units. It is the simplest version to calculate.

Standard Costs: This version is based on standard costing. Its calculation is similar to weighted average costing but standard costs are assigned to production units, rather than actual costs after total costs are accumulated based on standard costs, these totals are compared to actual accumulated costs and the difference is charged to a variance account.

First-In First-Out Costing (FIFO): FIFO is a more complex calculation that creates layers of costs, one for any units of production that were started in the previous production period but not completed and another layer for any production that is started in the current period.

The Uses of the Types of Process Costing

Why we have three different cost calculation methods for process costing and why use one version instead of others. The different calculations are required for different cost accounting needs. The weighted average method is used in situations where there is no standard costing system or where the fluctuations in costs from period to period are so slight that management team has no need for the slight improvement in costing accuracy that can be obtained with the FIFO costing method. Alternatively, process costing that is based on standard costs is required for costing systems that use standard costs.

Again, It is also useful in situations where companies manufacture such a broad mix of products that they have difficulty accurately assigning actual costs to each type of product under the other process costing methodologies which both use actual costs, there is a strong chance that costs for different products will become mixed together. Finally, FIFO costing is used when there are ongoing and significant changes in product costs from period to period to such an extent that the management team needs to know the new costing levels so that it can re-price products appropriately, determine if there are internal costing problems requiring resolution or perhaps to change manager performance-based compensation. In

general, the simplest costing approach is the weighted average method with FIFO costing being the most difficult.

Cost Flow in Process Costing

The typical manner in which costs flow in process costing is that direct material costs are added at the beginning of the process while all other costs (both direct labor and overhead) are gradually added over the cost of the production process. For example, in a food processing operation, the direct material (such as a cow) is added at the beginning of the operation, and then various rendering operations gradually convert the direct material into finished products (such as steaks).

Discussion the Implication of the Study

This section forms the conclusion of this study and the aims of the study as well as what has been discussed in the literatures which were discussed in relation to the secondary and primary research that have been carried out. The section is going to take a conclusion view on the study based on the analysis, information and result that has evolved during the course of the study. Recommendations are also given at the end along with a proposal of areas that will need further development and attention.

The end of this research has been to generally fit the aims and objectives of this study. Recommendation for the future is however made to further improvement upon the findings of this research. Based on the findings of the research, it is recommended that:

Process costing is the best costing method when producing large amount of similar items. This method applies cost to the production process levels, creating simple understanding.

The process costing methods are cost accounting which signaling a need for process changes and so to enhance productivity.

On the whole, the research feels that the objectives of this research have been met and have provided more insight into the development of an effective project contracts. It is also hoped that the findings of this research will assist future studies that examines

activities that pertain to the development of an effective projects contracts through costing systems approach.

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Industrial Agglomeration, Economic Efficiency and the Quality of Urbanization: An Estimate Based on Spatial Panel Data of Zhejiang Province

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Abstract: In this paper, we use descriptive tools such as Moran's I index or conditional scatter plot diagram and spatial panel data regression method to analyze how industrial agglomeration and urbanization quality impact on economic efficiency by constructing Spatial Agglomeration Index model, Stochastic Frontier Analysis model (SFA) and Quality of Urbanization model. We draw some conclusions as follows: Zhejiang economy is in a double turning point, one point is from traditional industry to modern industry, the other is from county economy to urban economy; Block economy's agglomeration effect is weakening annually, and it is less than congestion effect gradually.

Key words: Economic efficiency, industrial agglomeration, urbanization quality, double twist, spatial econometrics

Introduction and Literature Review

Industrial agglomeration of economic activities can increase the economic efficiency, the region is not only the focus of new economic geography, but the bonds between new economic geography and one of the core theory of new economic growth theory. New economic geography says that spatial agglomeration of economic activities exist two forces, centripetal force and centrifugal force. The First is the spatial agglomeration of economic activity will form the effect of the local market, characterized by the special labor market, sharing of intermediate inputs, spillover of information and knowledge, cause a trend of Industrial agglomeration. Martin and Ottaviano combine the endogenous growth theory model and C-P model of new economic geography, found that industrial activity will be gathered to higher economic efficiency regions, forward and backward association effect of industrial concentration can not only save the manufacturer production cost, but also can promote regional productivity through the knowledge and technology spillover effect, so geographical agglomeration and economic growth is a process of mutual reinforcement. Fujita and Thisse hold similar views from the perspective of human capital theory. The second is the excessive concentration of factors of production in a region causes higher prices inevitably, intensified market competition and market congestion effect, which promote the spread of the industry. This suggests that the industry cluster can not only form to the accumulative effect which is advantageous to economic growth, but also have a congestion effect which hinders the development of the regional economy. Interactive effect between the two will be at different stages of development at different equilibrium. Therefore,

industry cluster can whether or not promote regional economic efficiency depends on the agglomeration effect and congestion effect effect of two kinds of relative size.

In the empirical research about industrial agglomeration and regional economic efficiency, most scholars found that industrial agglomeration is conducive to regional labor productivity. Ciccone and Hall concluded that labor productivity can be increased by 5% with non-farm employment density increasing per 1 times through the analysis of the United States after employment density and the relationship between the labor productivity. Ottaviano and Pinelli found the population density has significant positive effect on growth of regional income with regional panel data of Finland. Domestic scholars Fan Jianyong found that increasing return of non-agricultural industries is the source of industrial agglomeration through the analysis of the cross section data of Chinese cities in 2004, which improves the labor productivity of the region. But there exist different conclusions. Williamson hypothesis and open hypothesis are the most typical theory. Williamson hypothesis points out that spatial agglomeration of production activities in the early economic development will significantly enhance economic efficiency, but when economic development reaches a critical level, promoting effect will disappear even negative effects. Then many scholars verify this Williamson hypothesis. Brulhart (2008) and Sbergamis found that industry cluster can promote regional economic growth only when the economic development at a certain level using global data from 1960 to 2000 in 105 countries. Domestic scholars, such as Wang, Huang & Yu (2014), Sun (2011), respectively confirmed the existence of Williamson hypothesis in China by the methods of dynamic panel system GMM and threshold

Fund: the Project Supported by National Social Science Foundation of China (No.13BJL096) ; Zhejiang Provincial Social Science Planning Project (No.12JDKF01Z) ; Zhejiang Provincial Social Science Foundation for Young Scholars of Zhijiang River (No.13ZJQN089YB).

model .

For the relationship between urbanization quality and economic efficiency, views vary by difference cutting Angle. New classical economics, and new economic geography theory mainly discuss the development process of urban with economic growth. the endogenous growth theory, and new classical economics theory focus on the model and the mechanism of urbanization promoting economic efficiency. Empirical analysis results show that the correlation between urbanization quality and economic efficiency varies in different regions and different stages of development. There exit three opinions about China's urbanization quality and economic efficiency, namely urbanization lag theory, the recessive urbanization theory and basic theory of moderate. The first kind of view is that our country urbanization lags behind industrialization and economic development compared with the same level of development countries. The second view is China's urbanization level is not lag, even ahead. The third kind of view is that China's urbanization does not deviate from the process of industrialization too much, but industrialization appeared deviation is the problem. Since the mid-1990s, the rapid advance of urbanization in our country brings about the debate about urbanization speed is whether too fast or not. In fact, the urbanization is whether reasonable or not, the key still should be the coordination between urbanization quality level and efficiency of economic growth. The urbanization quality of this article describes the relation between production and labor input, economic efficiency reflects the quality of economic growth. In this paper, we use Moran 's I index space descriptive tools and spatial panel data regression method to analyze industrial agglomeration and urbanization of zhejiang province quality impact on economic efficiency by constructing spatial agglomeration index model, the logarithmic cobb-douglas model stochastic frontier analysis (SFA) and quality of urbanization model.

Model Setting and Data

Measurements of industrial agglomeration

There are many methods measuring the degree of industrial concentration, such as Industry Concentration index, Hector Seaman-Hefoyinde index, Haley Ky index, regional quotient, Space Ginico Efficient, Concentration Index of Industrial space, etc. Industrial agglomeration is divided into two kinds, qualitative and quantitative research according to the different nature. Industry leading law belongs to the qualitative research which bases on location entropy. Principal component analysis which bases on input-output method, multivariate clustering and graph theory are quantitative researches. The former can help us judge whether exit industrial agglomeration phenomenon or not through regional quotient. The other can identify the content of industrial cluster, including the number of clusters, composition and internal relations, etc., under the premise of regional industry cluster phenomenon

exists. Qualitative and quantitative ways have respectively their advantages and disadvantages, we should combine the two ways and eliminate the deviation of the method itself according to the needs of study and master data .Through the comparison of the method itself and the completeness of data into consideration, this article finally Establish a new method in the integrated space gini coefficient and the industry concentration index, which is called spatial agglomeration index, to measure the industrial agglomeration level of the cities of Zhejiang province.

$$cr_k = \sum_{i=1}^k X_i / \sum_{i=1}^{\text{全部}} X_i$$

$$cyjj_k = 1 - \frac{1}{n} \left(2 \sum_{i=1}^{n-1} cr_k + 1 \right)$$

$$\text{St. } 1 \leq k \leq n - 1, \quad n = 17$$

cr_k represents the regional economy in the largest top k industry market concentration, which can be measured by production, sales, or the number of employees. Industry concentration can vividly reflect market concentration level, the degree of monopoly and competition of major industries in the market. $cyjj_k$ represents the industry agglomeration level, drawing lessons from Zhang (2007) about method of gini coefficient estimation theory, n is the number included in the calculation of the industry. Study area is the 11 cities in Zhejiang province, 17 selected representative industry, specifically farming, forestry, animal husbandry, fisheries, mining, manufacturing, electricity, gas and water production and supply industry, construction, transportation, warehousing and postal and telecommunication services, information transmission, computer services and software industry, wholesale and retail trade, accommodation, catering, finance, real estate, leasing and business services, scientific research, technical services and geological prospecting, water conservancy, environment and public facilities management, residents service and other services, health, social security and social welfare;, culture, sports and entertainment, reference point mainly is the staffs, time span from 2010 to 2010, 4 years.

Economic efficiency model

As the core of the economic growth, increase the efficiency does not only determine the quality of economic growth, technological progress and efficiency of management, but also influences the regional economic growth directly. The input of productive factors may bring economic growth in the short term, however, as the returns to scale declining, this high growth is unsustainable. Sustainable economic growth must rely on the improvement of productivity of labor, capital and other elements. Improvement of productivity due to the improvement of technology and the improvement of technical efficiency. technical efficiency is an important factor which affects China's economic growth. Technical efficiency is the ratio of the actual output of an enterprise and the production frontier which refers to the given inputs, the gap

between production frontier border and actual output divided by production efficiency is the ratio of the technology. Technical efficiency is used to measure the maximum output power under the existing technical level. The producers of output can whether or not achieve frontier border depending on the level of technical efficiency under the existing technical level. At present, there are two main methods to measure the efficiency of technology, stochastic frontier analysis (SFA) and data envelopment (DEA). SFA can not only test the parameters in the model (t test), but also test the model itself (LR test), therefore the conclusion is more close to reality, which provides better policy guidance. The article firstly builds a logarithmic cobb-douglas stochastic frontier analysis model to analysis efficiency of economic growth in Zhejiang province, and then further investigates differences of internal economic growth around the city, summarizes the differences influence factors based on panel data in 11 cities of Zhejiang province from 2010 to 2013. Logarithmic cobb-douglas stochastic frontier analysis model is defined as follows:

$$GDP_{it} = f(x_{it}; \beta) \exp(\varepsilon_{it}) \quad \varepsilon_{it} = v_{it} - u_{it}$$

$$u_{it} = u_i \exp(-\eta(t-T)) \quad jjxl_{it} = \exp(-u_{it})$$

$$\varepsilon_{it} \propto (-u_{it}) \propto \exp(-u_{it}) \quad St. \quad v_{it} \Rightarrow v_{it+1} \Rightarrow v_{it-1} \Rightarrow C$$

GDP_{it} represents the output in city i in the year t. X_{it} represents the input in city i in the year t. Labor and capital are considered to be main inputs. β is parameter to be estimated, ε_{it} represents composite error, which can be decomposed into production inefficiency u_{it} and random error term v_{it} . v_{it} measures error and various uncontrollable random factors, obey $N(0, \sigma_v^2)$, $v_{it} \in iid$ (independent identically distributed); u_{it} represents non-negative random variables, standing for production inefficiency, obey truncated normal distribution; u_{it} is independent of v_{it} . The third formula was used to describe the influence of time on inefficient item, which structured by Battese, Coelli(1992). η is for the attenuation coefficient. $jjxl_{it}$ represents the levels of production efficiency. When $u_{it} = 0$, $jjxl_{it} = 1$; When $u_{it} > 0$, $jjxl_{it} < 1$, $I = 1, 2, \dots, N$ ($N = 11$), $t = 1, 2, \dots, 4$ ($T = 4$) (we take 2010 as the starting year. When random factor influence tends to a constant C, ε_{it} has positive relationship with regional economic efficiency.

Urbanization quality model

Urbanization quality is a relative index measuring the city industry development level and the absorption quantity of population. We assume that the higher the quality of urbanization, the more competitive development of industry will becomes, the more high output value of unit worker will create, otherwise a

low-level way of urbanization, on the one hand, population is concentrated and bring security pressure, on the other hand, it can form policy inertia, which is not conducive to industrial upgrading. Urbanization quality is different from the traditional thinking that taking urbanization rate to measure the degree of urban development, involving the core problem in the process of evolution of urban, which takes more emphasis on the change of internal industrial and population flow dynamic relationship. We set up the quality of urbanization model as follows:

$$cshzl_{it} = y_{it} / l_{it} \quad y_{it} = (Y_{it} - Y_{it-1}) / Y_{it-1}$$

$$l_{it} = (L_{it} - L_{it-1}) / L_{it-1}$$

$$\sum_{i=1}^3 cshzl_{it} = cshzl_{1t} + 2cshzl_{2t} + 3cshzl_{3t}$$

$cshzl_{it}$ represents the quality of urbanization level, $\sum_{i=1}^3 cshzl_{it}$

represents the overall quality of urbanization level, y_{it} represents the rate of economic growth of municipalities, l_{it} reflects the changes in the number of industry workers, Y_{it} represent the output level of each industry, Represents the number of staff in each industry. We assume that there is a subtle relationship among the quality of urbanization, industrial agglomeration level and the economic efficiency.

Data sources and processing

The research object of this article is eleven prefecture level in Zhejiang province, consists of urban areas of 11 cities and 56 counties. Taking mainly 2010 to 2013 as the research time, data sources mainly are statistical yearbook 2011, 2012, 2013 and 20014, part of the data is come from statistical yearbook of Zhejiang province and 11 cities from 2006 to 2010. Data processing and related instructions are as follows:

(1) on the other hand, we use data of the total population at the end of year instead of the whole society employment number of some counties due to the lack of the data, including eight counties or cities in 2010, the urban areas of Ningbo, Yuyao, Cixi, Fenghua, Xiangshan, Ninghai, Wenzhou, the urban areas of Shaoxing, the urban areas of wenzhou, shaoxing in 2011, the urban areas of wenzhou, huzhou, shaoxing in 2012, the urban areas of wenzhou, shaoxing in 2013. On the other hand, some counties were revoked incorporated into the city in the process of urbanization, such as Shaoxing and Shangyu, which led to a split in the history of statistical caliber, in this case, we give priority to the corresponding data with the corresponding year.

(2) in the process of building economic efficiency model, we have discussed "there exist positive correlation between composite error term and regional economic efficiency when random factors influence tends to a constant C". Therefore we confirm 1 as the conversion ratio among ε_{it} , $-u_{it}$ and in order to simplify the operation. In the urbanization quality model, we firstly calculate the the ratio of their output and worker of municipal primary industry, secondary industry and tertiary industry, then we get the overall efficiency of urbanization level of a specific cities by assigning 1, 2, 3 to primary industry, secondary industry and tertiary industry

respectively.

Regression Estimation

Results and analysis of industrial agglomeration

Combined with the opinions of experts , this article divides the level of industrial cluster into four grades in Zhejiang province, namely low concentration (0-0.700), low concentration (0.701,0.750), the high concentration (0.751,0.800), and high concentration (0.801,1).From 2010 to 2013, according to the classification of industrial agglomeration (figure 1), overall industry cluster is not high in Zhejiang province, but the space difference is significant, and forms the pattern of"low concentration and low concentration cities are widely distributed, high concentration and high concentration cities are mainly located in the coast". High concentration city only includes Shaoxing (0.815), the medium-high concentration city only includes Jiaxing (0.772), low agglomeration cities and low agglomeration cities account for 45.45% and 36.36%

respectively of the 11 cities, low concentration level cities include ningbo, huzhou, wenzhou, jinhua and taizhou, low concentration level cities include hangzhou, zhoushan, quzhou, and lishui.From the perspective of location, the seven coastal cities industrial concentration degrees are an average of 0.714, 0.715, 0.712, 0.715 from 2010 to 2013, industrial concentration degree tends to convergence, the coastal industrial agglomeration degrees of 4 cities are an average of 0.676, 0.654, 0.696, 0.654,which shows that the industrial concentration is enlarging to some extent. On the one hand, it shows that regional difference has a certain influence on industry agglomeration, on the other hand, it shows that the effect of regional difference is weakening. From the point of changing trends, four cities show a strengthening trend in industrial agglomeration level in 2013 than 2010,including ningbo, shaoxing, taizhou and jinhua. the most obvious city is jinhua, with increasing 0.087;The rest of the cities show a trend of weakening, among which wenzhou is the most obvious city declining 0.052.

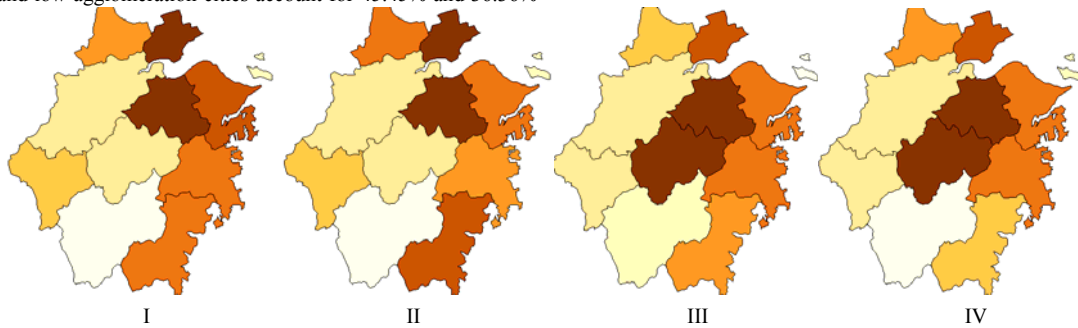


Figure.1 industrial agglomeration level distribution during 2010 ~2013 in 11 cities of zhejiang province (I ~ IV)

Table.1 estimation results of industrial agglomeration level distribution during 2010 ~2013 in 11 cities of zhejiang province

industrial agglomeration	2010	2011	2012	2013
Hangzhou	0.616005009	0.623554736	0.621941197	0.608706528
Ningbo	0.727815756	0.74607089	0.738656104	0.733216664
Jiaxing	0.786706809	0.775080566	0.768776072	0.756044544
Huzhou	0.752734907	0.738338984	0.727878115	0.729237306
Shaoxing	0.804196604	0.81377713	0.822201941	0.820005701
Zhoushan	0.57667986	0.561385199	0.550058434	0.543829296
Wenzhou	0.765629611	0.740171068	0.728099873	0.713608056
Jinhua	0.678504264	0.669274161	0.782359196	0.765907905
Quzhou	0.710667996	0.678062678	0.690642663	0.679024551
Taizhou	0.721743968	0.744710905	0.755623198	0.755829197
Lishui	0.56242668	0.529216338	0.581868289	0.543168053

(source: refer to the zhejiang statistics yearbook 2010, zhejiang statistics yearbook 2011, zhejiang statistics yearbook 2012, zhejiang statistics yearbook 2013, zhejiang statistics yearbook 2014, 11 cities in zhejiang statistical yearbook (2010 ~ 2014) finishing.)

Industrial agglomeration level is relatively low on the whole in zhejiang province in 2010 ~2011, the number of low agglomeration cities is 5,the number of low-medium concentration cities is 3, medium-high is 2,high is 1,accounted for 45.45%, 27.27%,18.18%, and 9.10% respectively.Significant difference were found in space, it

forms the geographic distribution pattern that centering on shaoxing(figure I and II).Among them, the industrial agglomeration level of shaoxing is 0.809, accounted on the regional cluster center, industrial agglomeration levels of jiaxing and wenzhou were 0.781 and 0.753.Compared with 2010, most of the industrial concentration

degrees of 11 cities were declining in 2011. The reduce of industrial concentration degrees is opposite bigger of lishui, quzhou and wenzhou by more than 0.02. The four cities, taizhou, ningbo, shaoxing, hangzhou, whose industrial agglomeration level is relatively improved.

Industrial concentration level is still low on the whole from 2012 to 2013, the number of low agglomeration cities is seven, accounted for 63.64% of the overall cities. Only four cities are classified into high concentration or better, accounted for 36.36%. Significant differences were found in space, it forms the pattern of a high concentration centre (shaoxing), cities of low-medium concentration and low concentration are around the large area and high concentration cities scatter (figure III, and IV). Among them, the number of high concentration cities is the same, number of low-medium concentration and low concentration cities reduces 1 than 2010 ~2011. In detail, industrial concentration of shaoxing, jinhua, taizhou, and lishui slightly ascend than 2010~2011, others decline. Compared with 2012, industrial concentration values were overall lower than 2012 except huzhou and taizhou. Significant spatial differences are found, forming the pattern of "one city is classified into high industrial concentration, low concentration and low concentration cities area largely distributed, medium-high concentration cities scatter around the high industrial concentration cities". High industrial agglomeration cities include shaoxing (0.820); High concentration cities include jiaxing (0.756), jinhua (0.766) and taizhou (0.756); The numbers of low -medium concentration and low concentration cities are 3 and 4 respectively, the highest values are respectively ningbo (0.733) and

quzhou (0.679).

Results and analysis of economic efficiency

Combined with the related research, this article takes the levels of economic efficiency of zhejiang province divided into four grades, namely low efficiency (below 0.350), (0.351 0.600), the medium-low efficiency (0.601 0.850), high efficiency (0.851 or above). From 2010 to 2013, according to the classification of the economic efficiency (figure 2), zhejiang province economic efficiency varies in different spaces, forming the distribution pattern of "low efficiency cities are widely distributed, cities of medium-low efficiency, high efficiency, and medium-high efficiency are arithmetic distribution. High efficient cities include shaoxing (0.938) and zhoushan (0.959), medium-high efficiency cities include hangzhou (0.767), huzhou (0.809) and taizhou (0.795), medium- low efficiency jiaxing (0.528), the rest low efficiency, the number of which is 5, which accounted for 45.45% of the 11 cities. From the point of location, during 2010 ~ 2013, the economic efficiency values of seven coastal cities are respectively 0.474, 0.605, 0.666, 0.633, the economic efficiency values of four non-coastal cities are respectively 0.332, 0.427, 0.510, 0.427, and the economic efficiency of all cities are rising in these years, no matter coastal or non-coastal cities, economic efficiency of coastal cities is better than that of non-coastal cities. From the point of changing trend, the economic efficiency of eight cities is strengthening in 2013 than that in 2010, among which the content of ningbo and hangzhou is most, increasing by 0.464 and 0.413 respectively. However, wenzhou, jinhua, and shaoxing are declining in the economic efficiency by 0.087, 0.087 and 0.180 respectively.

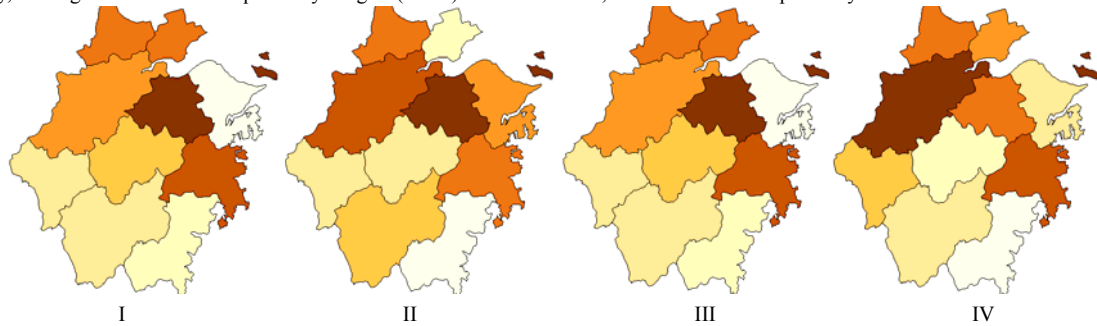


Figure.2 economic efficiency level distribution during 2010 ~2013 in 11 cities of zhejiang province (I ~ IV)

Table.2 estimation results of economic efficiency value during 2010 ~2013 in 11 cities of zhejiang province

conomic efficiency	2010	2011	2012	2013
Hangzhou	0.502327	0.797078	0.853147	0.915095
Ningbo	-0.195017	0.41429	0.330878	0.26939
Jiaxing	0.505368	0.309392	0.614383	0.683898
Huzhou	0.708222	0.724633	1.019074	0.785162
Shaoxing	0.870583	1.036238	1.061694	0.783678
Zhoushan	0.874502	0.815486	1.021333	1.125803

Wenzhou	0.006776	0.107122	-0.062131	-0.173366
Jinhua	0.303069	0.328613	0.321153	0.267088
Quzhou	0.173201	0.312049	0.38096	0.45739
Taizhou	0.754644	0.754644	0.841756	0.827588
Lishui	0.144026	0.343049	0.318217	0.331269

(Source: statistical yearbook 2010 in zhejiang, zhejiang statistics yearbook 2011, zhejiang statistics yearbook 2012, zhejiang statistics yearbook 2013, zhejiang statistics yearbook 2014, 11 cities in zhejiang in 2010-2014 statistical yearbook finishing.)

From 2010 to 2011, the number of low efficiency of 11 cities is the highest, accounted for 45.45%, the number of medium-low efficiency is 1, medium-high efficiency is 4, high efficiency is 1, accounted for 9.09%, 36.36%, 9.09% respectively. Significant difference was found in space, forming the geographical distribution pattern of one center (shaoxing), four sub-center (hangzhou, huzhou, zhoushan and taizhou) (figure I and II). Among them, the economic efficiency of shaoxing is the highest (0.953), the economic efficiency of hangzhou, huzhou, zhoushan and taizhou are 0.650, 0.716, 0.845, 0.755 respectively, most of economic efficiency of cities has improved in 2011 compared with 2010, the added values of economic efficiency of ningbo and hangzhou are maximum, 0.609 and 0.295 respectively. Two cities, Jiaxing and zhoushan, whose economic efficiency are in the fell, declining 0.196 and 0.059 respectively. Others' economic efficiency improve slightly.

The level of economic efficiency has been improved on the whole during 2012~2013, efficiency of four city is high, accounted for 36.36% of the overall cities. The number of medium-low or low efficiency is 5, accounted for 45.45% of the overall cities. The number of medium-high efficiency is 2, accounted for 18.18% of the overall cities. Obvious space difference is found, forming a regional structure with multicenter (shaoxing, zhoushan, hangzhou, huzhou), medium-high efficiency and medium-low efficiency in cities are scattered, low efficiency of cities mainly distributes in the southwest of the province (figure III, and IV). Contrasted by 2010~2011, the number of high efficient cities increase by three, corresponding decrease in the number of medium-high efficient cities by 2, the number of medium-low efficiency remains unchanged, the number of low efficiency reduces by 1. From the situation of cities, there are five cities whose economic efficiency level walks up the a step, the level of quzhou walks into

medium-low efficiency from low efficiency, the level of jiaxing walks into medium-low efficiency from medium-high efficiency, the cities, such as hangzhou, huzhou and zhoushan, whose efficiency levels are successful walking into the high efficient from medium-high efficient.

Results and analysis of urbanization quality

Combined with related research, this article divides the urbanization quality of zhejiang province into four grades, namely low quality (below zero), medium-low quality (0.01 10.00), medium-high quality (10.01 20.00), high quality (20.00 or above). From 2010 to 2013, according to the classification of urbanization quality (figure C), the urbanization quality is high overall in zhejiang province, forming the pattern that "high quality cities are widely distributed, medium-high quality and medium-low quality cities mainly locate in coastal area". Low quality rank includes only taizhou (8.193), High quality rank includes ningbo (14.104), zhoushan (11.252) and wenzhou and (0.807), the other seven cities are with high quality, accounted for 63.64% of the total cities. From the perspective of location, the average level of urbanization quality of seven coastal cities are 33.079, 75.089, 3.938, -0.942, the average level of urbanization quality of four coastal cities are 68.079, 30.142, 21.9995, 97.772 during 2010~2013, the urbanization quality of coastal or non-coastal cities is showing a declining trend, the quality of urbanization in the coastal cities is weaker than the non-coastal cities. From the perspective of changing trend, five cities' urbanization quality has been improved in 2013 than that in 2010, among which there is three cities situated along the coast, among which quzhou changes fast, increased by 289.072. six cities, jiaxing, ningbo, zhoushan, wenzhou, jinhua and shaoxing, whose urbanization quality is on the decline, reduce 19.247, 21.123, 33.016, 223.765, 10.200 and 253.788 respectively.

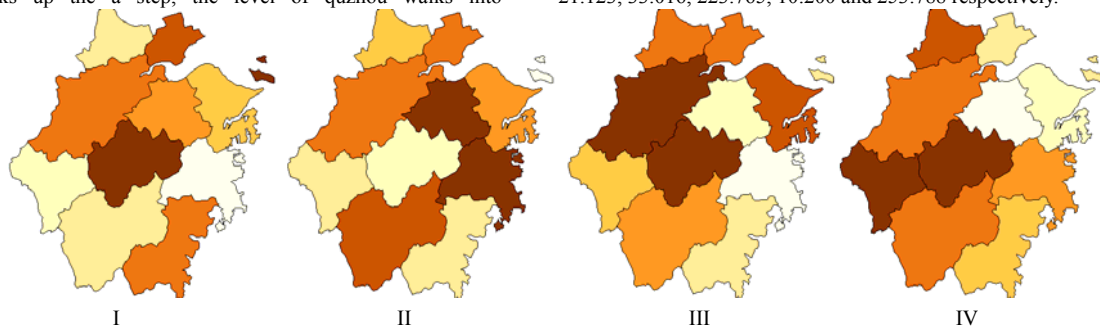


Figure.3 urbanization quality level distribution during 2010 ~2013 in 11 cities of zhejiang province (I ~ IV)

Table.3 estimation results of urbanization quality value during 2010 ~2013 in 11 cities of zhejiang province

quality of urbanization	2010	2011	2012	2013
Hangzhou	14.48068867	43.55804708	61.86278231	20.11424294
Ningbo	6.041361948	38.42266061	25.15777124	-13.20589916
Jiaxing	18.16420036	42.90199073	22.74054867	-2.95876255
Huzhou	-4.158214071	25.68760815	19.30286484	51.33009922
Shaoxing	6.452734911	472.3123289	-32.33820102	-26.56336427
Zhoushan	227.1872876	-180.4934737	-5.106986408	3.421790713
Wenzhou	13.78187377	-5.590708215	-8.546102465	3.582307172
Jinhua	314.4889406	-5.728752921	47.45721409	60.70093788
Quzhou	-24.307469	8.194150858	5.546998452	264.7647472
Taizhou	-54.55199642	114.5139452	-36.20319033	9.015208834
Lishui	-13.70800114	92.41448189	15.69095852	14.29191861

(source: statistical yearbook 2010 in zhejiang, zhejiang statistics yearbook 2011, zhejiang statistics yearbook 2012, zhejiang statistics yearbook 2013, zhejiang statistics yearbook 2014, 11 cities in zhejiang in 2010-2014 statistical yearbook finishing.)

From 2010 to 2011, the number of high quality is the highest, occupying 72.73%, cities with medium-high quality, medium-low quality and low quality, huzhou, wenzhou, quzhou respectively, are accounted for 9.09% of all cities. Spatial difference is small, roughly forming a geographical distribution pattern of centering on shaoxing and jinhua (figure I and II). Shaoxing and jinhua are the two highest cities of urbanization quality, the urbanization quality of hangzhou, jiaxing, ningbo, zhoushan, taizhou and lishui are 29.019, 22.232, 30.533, 23.347, 29.981, 39.353 respectively. Urbanization quality in most cities is improved in 2011 compared with 2010, among which shaoxing, taizhou and lishui have experienced the most obvious change, increased by 465.860, 169.066, 106.122 respectively. Urbanization quality of three cities decline in some content, zhoushan undergoes the most obvious change, the other two cities are jinhua and wenzhou.

Eight cities' urbanization quality level drop from 2012 to 2013, the top three biggest cities of degree of decline is shaoxing, jinhua and taizhou. There are only three cities, quzhou, huzhou and hangzhou, whose urbanization quality has improved, the total proportion of which is only 27.27%, increased by 143.213, 24.552, 11.969 respectively. Obvious spatial differentiation is noticed, the cities with high quality and low quality of cities occupy an important position, form some strong centers, such as hangzhou, huzhou, jinhua, Quzhou, weak centers, such as shaoxing, zhoushan, wenzhou and taizhou (figure III, and IV). Compared with the period in 2010 to 2011, the number of cities of high quality reduces four, the corresponding low quality number adds three, medium-low quality number adds one, medium-high quality number remains

unchanged. From the point of cities, the urbanization quality levels of hangzhou and jinhua remain unchanged, that ningbo, jiaxing, shaoxing, zhoushan, wenzhou, taizhou and lishui drop, huzhou and quzhou walk into the high quality level from medium-high level and low quality level respectively.

Spatial Descriptive Analysis of the Relation among Industrial Agglomeration, Economic Efficiency and Urbanization Quality

We use Moran's I index to the spatial descriptive analysis. Moran (1950) proposed the global spatial Moran's I index, whose expression is listed in the following:

$$Moran'I = \frac{n}{\sum_{i=1}^n (Y_i - \bar{Y})^2} \frac{\sum_{i=1}^n \sum_{j=1}^n W_{ij} (Y_i - \bar{Y})(Y_j - \bar{Y})}{\sum_{i=1}^n \sum_{j=1}^n W_{ij}}$$

Y_i , Y_j represent the index observation of area i , j respectively, n represents the unit number of space, W_{ij} represents the weighting matrix of space, which can measure the relationship of neighborhood, generally defines 1 between adjacent region, otherwise 0, the matrix is also known as binary spatial weight matrix. Moran's I values range is -1 to 1, tending to -1 represents the negative spatial correlation, tending to 1 represents the positive spatial correlation, 0 represents the irrelevant spatial relation. The investigation object which taken into the index system of article is the 67 counties of zhejiang province during 2006-2013, including the urban areas of 11 cities, we divide the industry into primary industry, secondary industry and tertiary industry in 67 counties and cities to calculate the global Moran's I index of the province, the result is shown in the following

table.

Moran's I values of primary industry, secondary industry and tertiary industry during 2006-2013 are 0.105, 0.030 and -0.011 respectively, on the whole, there are certain spatial correlations in the above three industries, there are positive correlation relationships in the primary industry and second industry, which shows the industry cluster with similar properties, Moran's I of the third industry is negative, which shows the industry cluster with different properties. From the perspective in the development trend, Moran's I of the primary industry undergoes a little change overall, except a

little fluctuation in 2008, Moran's I of the second industry tends to increase, which shows that economic structure in Zhejiang is undergoing a new transformation gradually that from the development of massive economy to the diversification development in industry, Moran's I of the third industry is negative and continues to deviate from the 0, which shows the third industry in Zhejiang province gradually is forming regional features and regional advantages, the layout of the third industry is becoming more and more reasonable, whose spatial dependence has decreased to a certain degree.

Table. 4 Moran' s I of the primary industry, secondary industry and tertiary industry during 2006~2013 in 11 cities of Zhejiang province

	The primary industry	The secondary industry	The tertiary industry
2006	0.148	0.0291	-0.0063
2007	0.1585	0.0284	-0.0111
2008	-0.38	0.0312	-0.0118
2009	0.1733	0.0350	-0.0099
2010	0.1904	0.0259	-0.0117
2011	0.1879	0.0248	-0.0108
2012	0.1926	0.0271	-0.0093
2013	0.1666	0.0397	-0.0146

(source: refer to the Zhejiang statistics yearbook 2006, Zhejiang statistics yearbook 2007, Zhejiang statistics yearbook 2008, Zhejiang statistics yearbook 2009, Zhejiang statistics yearbook 2010, Zhejiang statistics yearbook 2011, Zhejiang statistics yearbook 2012, Zhejiang statistics yearbook 2013, Zhejiang statistics yearbook 2014, 11 cities in Zhejiang in 2006-2014 statistical yearbook finishing)

Spatial Panel Data Analysis of the Relationship among Industrial Agglomeration, Economic Efficiency and Urbanization Quality

At present, there are two kinds of mainstream model in spatial panel data economics, one kind is the spatial lag model (SLM), which is suitable for the existence and strength of measuring space interaction relation by adding spatial lag correlation variable. Another kind is the spatial error model (SEM), which is suitable for processing effects of spatial auto-regressive variation by adding the residual special form structure. For the estimates of spatial panel model, it will lead to bias parameters if it continues to adopt the most traditional Small Squares Method, therefore, general maximum likelihood method is adopted to estimate the model with the premise condition that it must be through the spatial correlation test, which have been confirmed by the previous Moran's scatter plot analysis.

Stationarity test and cointegration of panel data. Taking stationarity inspection of panel data before regression, which can avoid spurious regression problem, we find that all the variables are stationary time series after the first order difference analysis, integrated results of Levin Lin & Chu inspection, ADF fisher test and PP fisher test by Eviews6.0. Panel KAO test is used to the cointegration test, time lag is defaulted, along with the adjoint probability is less than 0.05. There are long-term stable relationship among industrial concentration, economic efficiency and the quality of urbanization through inspection, which makes us continue to the

regression by using panel data.

The estimated results of spatial panel econometric model. Elhorst (2003) generalized to the panel data, and gave the algorithm of the spatial panel data model test. In the result analysis, the appropriate fitting is logarithmic Likelihood estimator (the Log Likelihood) and red pool information criterion (AIC) and the Schwarz information criterion (SC). In the table below we've listed regression results which take the economic efficiency as the explained variable, the degree of industrial concentration and the panel data of urbanization quality as the explaining variable from 2010 to 2013 in Zhejiang province. In the four years of study, the Log Likelihood of spatial lag model is biggest, values of AIC and SC are least, which reveals the best choice is SLM model and takes maximum Likelihood method to estimate the result, for the sake of comparison, the table also gives estimation results of traditional panel fixed effects model and error correction model.

We find the models are steady on the whole by contrast the regression coefficient between SLM and SEM, which shows that the result is reliable. From the perspective of the estimated results of spatial lag model SLM, industrial agglomeration's influence on the economic efficiency is much more than the quality of urbanization. In 2010, the elasticity coefficient of industrial concentration is 0.5000, the quality of urbanization elasticity coefficient is 0.00054. The influence of industrial agglomeration on economic efficiency is from positive to negative since 2011, the positive effect.

Table.4 Spatial panel data estimation results among industrial agglomeration, urbanization quality and economic efficiency during 2010

~ 2013 of zhejiang province

variables	CYJJ (X1)	CSHZL (X2)	CONSTANT	Log-Likelihood	Akaike info critirion	Schwarz critirion
OLS-fixed	0.3353 (0.2051)	0.00048 (0.4036)	0.1660 (0.1418)	-3.8259	13.6519	14.8456
SEM-fixed	0.4436 (0.3242)	0.00044 (0.4466)	0.2670 (0.2575)	-3.7075	15.415	17.0066
SLM-fixed	0.5000 (0.3426)	0.00054 (0.5195)	0.0532 (0.0511)	-3.6694	13.3388	14.5324
OLS-fixed	-0.6834 (-0.5635)	0.0010** (1.4358)	0.9549* (1.1592)	-0.2990	6.598	7.7917
SEM-fixed	-0.5624 (-0.5555)	0.00095*** (1.6307)	1.1225** (1.3781)	-0.1634	8.3267	9.9183
SLM-fixed	-0.5584 (-0.5308)	0.00096*** (1.6097)	0.8743* (1.2235)	-0.2647	6.5293	7.7230
OLS-fixed	-0.4568 (-0.2982)	-0.0028 (-0.6372)	0.9611 (0.8737)	-3.998	13.996	15.1897
SEM-fixed	-0.4778 (-0.366)	-0.0028 (-0.7569)	0.9186 (0.9313)	-3.991	15.981	17.573
SLM-fixed	-0.5228 (-0.4141)	-0.00295 (-0.8064)	1.0011* (1.103)	-3.966	13.933	15.127
OLS-fixed	-0.8217 (-0.5846)	-0.0006 (-0.3775)	1.1628* (1.1731)	-3.9833	13.967	15.1603
SEM-fixed	-0.8344 (-0.6947)	-0.0006 (-0.4394)	1.152** (1.3366)	-3.9797	15.9595	17.5511
SLM-fixed	-0.8674 (-0.7345)	-0.00055 (-0.4022)	1.1896** (1.4308)	-3.9719	13.9437	15.1374

Furbanization quality on economic efficiency is also beginning to disappear since 2012. The elastic coefficient of industrial agglomeration to economic efficiency is -0.5228 in 2012. The elasticity coefficient of urbanization quality to economic efficiency is -0.00295. The negative effect of industrial agglomeration on economic efficiency is enhanced in 2013, whose elastic coefficient reaches -0.8674, and the negative effect of urbanization quality on economic efficiency weakens, whose elastic coefficient is -0.00055.

Conclusions

The effect of traditional industrial agglomeration on economic efficiency is turning from positive to negative, which shows that the region's economy of Zhejiang province has come to the transformation and upgrading of the node. Massive economy is a kind of industry concentration and specialization, which is formed in a certain area. At the same time, it is also a kind of economic organization form of regional industrial group with distinct local characteristics. When administrating in Zhejiang, Xi Jinping takes the massive economy as the third major advantages of Zhejiang, and put "further play to the block characteristics of Zhejiang industrial advantages, accelerate the construction of advanced manufacturing

base, take a new road to industrialization" as part of the "eight eight strategies" as a policy. The lump economy is suitable for the increasing returns model proposed by Paul Krugman, forming a unique advantage of agglomeration. From the analysis of regression results from spatial panel SLM model, In 2010, the effect of industrial agglomeration on economic efficiency was significant, and its elastic coefficient reached 0.5000. The effect of industrial agglomeration is good before 2010, showing a gratifying situation.

The effect of industrial agglomeration on economic efficiency is from positive to negative, and the degree of influence shows an expanding trend, which shows that the agglomeration effect of lump economy is less than the congestion effect, and transformation and upgrading of traditional industries is imperative. Formation of massive economy, on the one hand, can promote the professional division of labor and cooperation among private enterprises, which is helpful to improve the level of the whole production technology of private enterprises and reduce the cost of production and transaction. On the other hand, it can further enhance the community's learning ability and competitive ability of the enterprises with the help of the competition and information exchange, and form the advantage of scale economy of technology and innovation management. However, the agglomeration of

Zhejiang economy is mainly concentrated in the second Labor-intensive Industry, which is conducive to the rapid organization of labor, capital and other factors of production of the production of products and develops in the case of the overall social supply is still insufficient. However, in the case of social supply is greater than the social demand, competition between the same manufacturers begins to be fierce, partially offset the benefits of agglomeration, at the same time, the labor intensive industry depends mainly on the competitive advantage brought about by the low price of goods caused by the low labor cost, as we know, the low labor cost corresponds to the oversupply in the labor market, workers have internal pressure to work hard, be familiar with the process and improve economic efficiency. However, in the background of the demographic dividend disappeared in China, especially after the financial crisis, traditional industry recruitment difficulties superimposed the insufficient external demand, which makes the development outlook not optimistic, which corresponds to the negative impact of industrial agglomeration on economic efficiency in Zhejiang from 2013 to 2011, the coefficients of industrial agglomeration to economic efficiency in Zhejiang are -0.5584, -0.5228, -0.8674 during 2011 to 2013. Zhejiang province has formulated the policy of the integration and take a new road to industrialization aiming at the weakness of traditional industry, to promote industrialization with information technology, to promote the industrialization of information technology. Transformation and upgrading of traditional industries, on the one hand, can save the space of plant space and strengthen the effect of agglomeration, on the other hand, it can effectively reduce the intensity of the congestion effect and improve the efficiency of the regional economic growth, through the replacement from the low production factors to technology, management, human capital and other high-end elements.

The influence of urbanization quality in Zhejiang Province on economic efficiency has also turned from the positive to the negative. At present, the county economy is in a critical period of transition to the city economy. "urban and rural coordinated development" is known as the fourth major development advantages of Zhejiang province in the "8-8 strategy", which is confirmed by the overall high quality of urbanization. In addition to the formation of a more harmonious relationship between urban and rural areas, there exist County Economy with different characteristics. The global Moran's index of the second industry in Zhejiang has a tendency to expand in the recent 8 years, which shows that the economic structure of Zhejiang is developing from the characteristics of the County Economy to the Industrial diversification of the Urban Economy. It can be assumed that the industrial agglomeration may be the intermediate variable of the economic efficiency from the regression results of SLM model, industrial agglomeration attracts a large number of workers to the factory for production, which not only improve the level of regional economic efficiency because of the change of production organization form, but also change the identity of the workers and their way of life, which is also a part of the process of urbanization.

The improvement of urbanization quality may inhibit economic efficiency since 2012, the reasons are various. First, the quality of urbanization is described by the relative relationship between industrial output value and the absorbed labor force, economic efficiency is more emphasis on the contribution of technology, human capital and endogenous factors of production to the economy, therefore, there is no inevitable connection between the two above. Second, Zhejiang county economic development gives full play to the gathering effect of labor, capital and other factors, which is lack of external pressure and internal power to upgrade the existing industries in the development of local economy. Third, at present, the County Economy in Zhejiang is in a critical period of transition to the Urban Economy, in accordance with the "Zhejiang urban system planning (2011 - 2020)", the urban system of the whole province is showing the trend of the development of cluster and network, focusing on the development of four metropolitan areas of Ningbo, Hangzhou, Wenzhou, Jinhua - Yiwu in the next 20 years. We are just a small step on the road of development of city economy, which also reduces the effect of urbanization quality level on economic efficiency.

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Research on the Influence Factors of Farmland Idleness Based on the Farmers Household feature

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Abstract: There are more researches on idling arable land, but the study that based on the family type is lack. In order to study the effect of family factors on the decision of farmland idleness, the research takes Xincai city of Henan province as an example, and makes a hypothesis. Then the logistic model is used to test the correctness of the hypothesis. The result makes it clear that five dates, including family population number, agricultural acreage, farmers' physical condition, proportion of non-agricultural employment and farmers' age, have a prominent impact on the decision of abandoning farmland. This decision will not happen easily, unless and until the quantity or quality of left-behind labor can't meet the needs of agricultural production.

Key words: Farmers' Family Characters, Farmland Abandoning, Analysis of logistic model

1. Introduction

Today, domestic scholars' concentrate mainly on qualitative researches, such as conception, type or characteristic of wasting, the forming reason and so on. Among that, Tan shu-kui, Huang jian-qiang, Huang li-min thought arable land abandoning can divide into two parts-dominance and recessive; Zhang bin, Huang li-min, Xia wei-sheng defined the concept of disused arable land from different point; Tan shu-kui, Huang li-min, Feng hong-yan thought that, by different standard, the abandoning can be split into natural or economic wasting, year-round or seasonal abandoning; initiative or passive wasting; Tan shu-kui, Sang guang-shu, Zhu ding-jiu, Xiong xiang-qiang, Wen hua-cheng analyzed the features and cause of formation of the wasting from different aspects, for instance, executive functions, economic development level, area conditions, natural resources, labor conditions and so on.

In recent years, little by little, the main parts of this research tend to analyze influence factors. Li wen-hui, based on quartile regression, verified the hypothesis of "critical point of income and utility" and found that famers' family characteristics have a varying degree of impact on idle decision by "trickle effect" or "warp effect". Feng hong-yan found that these factors, such as farmers' age, agricultural acreage, average personal income, proportion of agricultural income, changes in crop price, transfer of arable land and so on, have a noteworthy effects. Huang jian-qiang, Liu xiang-min, Xie yong studied influence factors of wasted cultivation from three separate aspects-the behavior of labor forces, changes of farmers' income structure and views of peasant-worker.

2. Hypotheses

The decision-making unit of the wasting is whole family instead of an individual member. So this paper focused on the impacts of household characteristics upon farmland abandon.

2.1 members of family size

Less possibility of the abandoning is associated with the more members. In generally, the bigger size the family is, the more labors

it have. It means that there are still remainder labors work in agriculture under the circumstances that most members of family going out for non-farming job. Everyone who stayed at home can be treated as a agricultural labor, even it's only a leftover children. Because it's a universal phenomenon that children cooking at home when older family members are working in the field. Beyond that, more household's population associate with heavier burden. It leads to farmers must work more hard to make the start meet the ends.

2.2 farmers' age

Different stages of age have unlike impact on the decision of wasting. Commonly. Older the farmer is, more less waste there will be happen. Three reasons make it come true. Firstly, with the increase of age, the rural labor force in the probability of successful employment of urban decreased gradually, and agricultural production for the age limit is relatively small, so the aging of the labor force tend to engage in agricultural production. Secondly, compared to young people, the elderly' "homeland complex" are richer, it considers land is not only one asset of the family and more is the important guarantee to maintain the livelihood. But if the farmers older than the deadline to maintain agricultural production activities, then land abandonment behavior will become inevitability.

2.3 physical conditions

The health status of farmers, especially poorer health status, play a crucial role to land abandonment decision and the role reflected in the positive and negative two aspects. Generally speaking, poorer health status will limit of migrant farmers, make it very difficult in the city to engaged in secondary and tertiary industries successfully. In response, the needs of physical quality for agricultural production activities is low, farmers are more likely to or had to choose working in agriculture. Under this kind of condition, the rural family have heavier economic burden, and the cultivated land can provide the most fundamental survival guarantee. This means that the poor health status can restrain the wasting to some extent. But if the physical condition of the farmers continued to deteriorate until unable to meet the basic needs of agricultural production, land abandonment will occur. At this time, poorer health

status has promoting effect to land abandonment decision.

2.4 education level

It is generally believed that farmers with higher education level have stronger willing to waste land, but at present our farmers receive for basic education, and some farmers even did not receive school education. Therefore, the degree of correlation between education level and decision-making behavior of farmers is not high. But education is a kind of investment behavior, once the farmers engaged in agricultural production can not reach the expected benefits, it will lead to its transfer to non-agricultural employment.

2.5 household non farm employment ratio

Dependence for land is low in the families that proportion of non-agricultural employment are higher, the possibility of abandoned is greater. But only in the left labor short to meet the demand of traditional agricultural production, behavior of waste will really happen. At present, even if lots of labor into cities, there are still some family members left behind in rural areas to engage in agricultural production activities, the phenomenon is rarely for all the family members moved in city, because the elderly are impossible to achieve employment in the urban.

2.6 household non farm income ratio

Due to the farmers "Hometown Complex" and the group's unique way of thinking and behavior habits, even non-agricultural income ratio more than agricultural income of family, barren land behavior is not absolute. More critical is that the land have the safeguard function for peasant households, the non-agricultural income just a kind of "extra income". Only when the

non-agricultural income can supply all costs, the possibility of farmland idling would be increased greatly.

3. data sources and selection of variables

3.1 data sources

The Xincui City of Henan Province identified as the study area, according to the difference of economic development level, geographical location, traffic conditions, per capita cultivated land quantity, this paper mainly selected seven villages (Cao Lao village, Da Liu village, Ren Ji village, Ma village, Xing village, Wang village and Dong Wang village) as samples. 120 questionnaires were used to analysis the factors affect wasting. Through the investigation of the basic situation of the family farmers, and summary the results of the questionnaire to get the data related to this study.

3.2 variables selection

The choice of variables is the main influence factor analysis of farmers of arable land wasting. According to the analysis, the author chooses 8 indexes- family number, age, level of education, health, family members of the occupational distribution, main sources of family income, family cultivated land quantity and main use of cultivated food crops -as the analysis variables.

The problem of "whether the land abandonment behavior will occur" as the dependent variable Y, and then assign it to the "yes" to P (Y=1), "no" to P (Y=2). Before the analysis of the variables, the description of the relevant variables should be given. Look at table 1.

variables	value	natur	sample analysis ratio(%)
Family population number	Less than or equal to 2=1	Categorical variable	5.44
	3 or 4=2		41.79
	5 people and above=3		52.77
age	less than or equal to 30=0	Categorical variable	8.96
	Between the ages of 30 and 45=1		16.87
	Between the ages of 45 and 60=2		48.37
	Greater than or equal to 60 years old=3		25.8
educational level	Up to primary school =0	Categorical variable	64.07
	junior middle school =1		22.34
	high school=2		5.28
	At least on a technical secondary school =3		8.31
Physical condition	completely disabled =0	Categorical variable	1.62
	Bad condition=1		4.33
	generally=2		64.51
	very well=3		29.54
proportion of non-agricultural labor	less than 1=0	Categorical variable	13.9
	equal to 1=1		35.6
	more than 1=2		50.5

Main resource of income	farming=1	Categorical variable	10.9
	Go out to work=2		84.62
	Other way=3		4.48
Number of arable land	Actual cultivated land quantity	Numerical variable	
Purpose of crops	self-consumption=0	Categorical variable	76.03
	marketing=1		17.91
	other way=2		6.06

Table 1 The relevant variable of farmer land cultivated description

Note: the age, educational level and health data of the questionnaire are the personal status of the respondents, and other indicators are the overall situation of the family.

4. Analysis of influence factors of farmers' land cultivated based on Logistic model

4.1 model building

According to the study, whether land abandonment behavior will be happen is the dependent variable; and all the influence factors as variables. On the basis of analyzing all kinds of

influencing factors, an empirical model is established, as follows:

$$\text{Willingness to idle} = f(\text{influencing factors}) + \text{random perturbation} = f(X_1, X_2, X_3, X_4, \dots, X_9) + a$$

This study uses the SPASS software to carry on the Logistic regression analysis to the questionnaire data. Specific results are shown in table 2.

	B	S.E.	Wals	df	Sig.	Exp (B)	EXP(B) 95% C.I.	
							lower limit	upper limit
Family population number	-2.807	.914	9.428	1	.002	.060	.010	.362
age	-2.376	1.165	4.159	1	.041	.093	.009	.912
educational level	.227	.648	.123	1	.726	1.255	.353	4.467
Physical condition	4.253	1.549	7.540	1	.006	70.346	3.378	1464.866
Step1 proportion of non-agricultural labor	1.733	.760	5.198	1	.023	5.659	1.275	25.113
Main resource of income	.262	.417	.395	1	.530	1.299	.574	2.941
Number of arable land	2.088	.745	7.861	1	.005	8.070	1.875	34.738
Purpose of crops	.448	.601	.556	1	.456	1.566	.482	5.085
constant	.420	2.681	.025	1	.875	1.522		

Table 2 The results of Logistic analysis model

4.2 model test

According to the model analysis, the chi square value is 51.441, greater than the critical value of 15.51, and sig<0.05, which shows that the estimation of the model fit the data, and the goodness of fit is well. According to the pseudo R2 statistics, Cox Snell R2=0.536, nagl family R2=0.716, illustrate the relevance of the given model is high. The chi square value is less than the critical value of 14.07, and sig>0.05, which shows that the model is well fitted. The overall prediction rate of the model is 82.1%, which shows that the model's overall prediction is good, and the reliability of the above conclusions is supported.

4.3 evaluations of model results

The results showed that these five indicators are the main factors affecting land abandonment, they are family number, age, health status, non-agricultural employment ratio and the total amount of cultivated land.

5. Priority ranking of influencing factors based on analysis results

According to the results of the model analysis, combined with the actual situation of the research, the priority order of the influencing factors is as follows:

5.1 family populations

According to the results of the model, the number of family population is very significant at the level of 5%, Wald statistic is the highest of the eight variables, and the coefficient is negative. This shows that the family population is more, the smaller the possibility of abandonment. That is to say, most of the families do not want to waste land in the case of labor surplus.

5.2 cultivated land quantity

The quantity index of the cultivated land in the family was significant at 5%, Wald statistics in eight variables ranked second, the coefficient is positive. This shows that the more the total cultivated land of the family, the greater the possibility of abandonment. At present, the main labor force in rural households is mainly to go out for work, the quantity and quality of the left behind labor force is relatively low. This means that the amount of arable land allocated by the family population is relatively large compared to the left behind, and some left labors are women or the elderly, which leads to many families have to waste.

5.3 health status

The index of health status of farmers was significant at the level of 5%, Wald statistics in eight variables ranked third, the coefficient is positive. This shows that the better health status of farmers, the possibility of abandoned is greater. Generally speaking, due to the huge disparity in "workers and peasants" and "poor urban and rural areas", compared to the domestic farmers, farmers are more inclined to choose to work in rural areas. But farmers with poor health can't achieve a job successfully in city, at this point, in order to ensure sustainable livelihoods; he will strive for agricultural farming, until lost the ability to work completely.

5.4 nonfarm employment ratios

Non-farm employment ratio index in the statistical test level of 5%, Wald statistics in eight variables ranked fourth and the coefficient is positive. This shows that more non-agricultural employment population, The greater possibility of abandonment. Due to the family planning policy, the size of the rural families is generally 4 - 3 people, up to no more than 7 people. The high non-farm employment ratio means less left labor, relative to the more possibility of abandonment.

5.5 age

The age index of the farmer was significant in the statistical test of 5%, Wald statistics is eight variables ranked fifth, the coefficient is negative. This shows that the elderly do not want to abandon land. The results accord with the previous hypothesis, because the "homeland complex" of older man is more important. And as the age increases, the physical quality is decline, the source of income to reduce, it leads to the sense of dependence on land is gradually increased.

6. Conclusions

The indexes in farmer household characteristics have main effect on land abandonment behavior are family population, cultivated land quantity, farmers' health status and age, and the ratio of non-farm employment. Among that, the number of family and the

increase of age have an inhibitory effect on the abandoned decision, while the quantity of cultivated land and the increase of the ratio of non-agricultural employment has a certain role in decision-making. The influence of health status presents the characteristics of stage.

In addition, because the farmers "homeland complex" and the social security function of land and other reasons, left labor make the choice of abandoning only in two situations. First, his age or health level can not meet the demand of agricultural land. Second, when the surplus labor force can't be cultivate all farmland, some abandoned behavior may occur.

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An Exploration to the Behavioral Control and the Optimal Regulation and Control Pattern in Family System

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Abstract: Family system is a stable emotional structure made up of tangible and intangible rules produced during the interaction between family members. The appearance of a mental disease patient in a family reflects that the family itself is a real patient. American anthropologist Gregory Bateson creatively introduced the principles and methods of the modern control theory to family therapy, and he also came up with the Double Bind Theory. A core concept of Viny's control theory is that the positive feedback of any system may result in system crash, and timely negative feedback is pivotal to maintaining a healthy system running. The concept of this theory applies equally to the setting of communication in a family system. The object relation theory on separation is the optimal model of linking up the regulation and control of positive and negative feedback. It can not only guarantee babies enough care, but also help them to become independent. Researchers on family system put forward respectively several theories on unsuccessful family system regulation and control, including the feedback models such as fission, fusion and double bind. Differentiation of self is a complete state of family control. Adults who possess self differentiation capacity can build up a healthy family emotional system, which will help the family system to enter the rail of sound cycle.

Key words: Family system; control theory; positive and negative feedback; separation; fission; double bind; differentiation of self; emotional system

The Definition of Family System

Family system, an important concept in Family Therapy, refers that a family is a system. In this system, there is a relatively stable family structure composed of tangible and intangible rules produced during the interaction between family members, and a unique mode of communication formed between family members.

In 1935 the British ecologist A.G. Tansley put forward the concept ecological system. Ecological system refers that in nature, a primeval forest, for instance, there exists not only cooperation but also competitions between various creatures in the forest, joining to form an integral whole. In 1960s, the Anglo-American anthropologist Gregory Bateson found that human society is an ecological system. If there is a member with mental health problem in a family, it is actually the result of mutual influences among family members. The real patient here is the family itself. Therefore, rather than focusing on the single patient, the treatment should take the change of the whole family system as an object. Taking the above findings into consideration, Gregory Bateson regarded the events that occurred in family life, such as children's education, marital relations and visits to relatives, as an integral whole. He creatively introduced the principles and methods of the modern "three theories", namely system theory, control theory and information theory to family therapy, extending the research scope of family education to the whole family. Among these three theories, the ideas and methods of control theory in particular have permeated into almost all the natural science and social science field.

The Control Theory in Family System

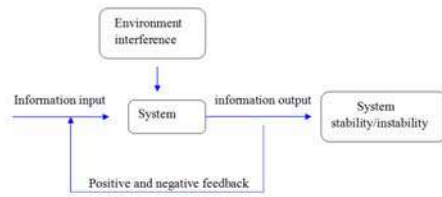
Control theory refers to the study of regulation and control rules in a variety of systems. Viny, the father of control theory, regarded control theory as a science studying the regular rules of control and communication in the society of machine and living things. A major research topic of it is to explore how to make the dynamic system maintain a balanced and stable state under the complex and changing conditions.

The information in control system

Valuable information is a must for a successful control. Therefore, the operational definition of control system is as follows: to improve the function and development of certain object, we should first gain the information needed. Then we choose and accept the valuable information. Based on this valuable information, different means will be taken to act on the object.

As for a family, the purpose of control theory is to educate children. To realize that goal, all information related to the child should be collected. The richer the information is, the more secure the child's education will be. Of particular note is that control means exerting influence on children. The purpose of influencing children is to improve a child's manner, and thus to realize the parenting goals of parents. This influence can be achieved through the selection and use of information.

Drawing lessons from the method of system control and improvement, Viny came up with the concept of positive and negative feedback. Feedback means collecting, analyzing and making use of information. The secret of control system is the adjustment and balance of positive and negative feedback, with behavior, positive feedback and negative feedback being its keywords.



Feedback control diagram

The behavioral control in control theory

The word control in modern control theory has nothing to do with dictatorship and authority. The term Cybernetics comes from Greek. Its original meaning is an art of steering a boat, containing manifold meanings such as regulation, command and supervision. To navigate in the ocean, it is very necessary to know the direction of the ocean current and the speed and direction of monsoon. With this information, the boat can then sail toward its destination automatically. It seems that this art is of no use, but when it comes to the collection and application of the ocean current and monsoon information, its function can never be ignored.

In the control theory, behavior is defined as the system’s response (output) to the action of outside environment (input). According to control theory, for any system to reach its goals, certain actions must be taken. That is to say, it is very essential for a system to maintain its input and output. Provided that a system has been in a state of no input or output for a long time, a breakdown is inevitable. This is also true for the family system. The communication between family members is actually a kind of input and output. Even if conflict and chatter are regarded as behaviors that are beneficial to the system.

Having conducted studies on the communication style in families with schizophrenics, the family therapist Wynne found a fragmented and unclear communication in such families. This blurry and chaotic communication was named soft reality by Wynne, meaning a lack of real communication in families. What can be found in such families are the obscure communication contents, and there are no chatters in such families. Over time, children from these families tend to communicate with others in a confusing state, and they are unable to face up to the fact rationally. In more serious cases this situation will turn children into schizophreni.

The Feedback Communication Techniques Used to Control

Children

Feedback is defined as a process, in which the output information is returned to the input end and, after treatment, exerts influence on the system output. Feedback can be divided into two categories: positive feedback and negative feedback. And negative feedback is the core topic of control theory.

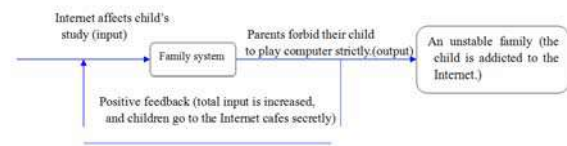
Positive feedback communication

Positive feedback, as is interpreted as a positive impetus, refers to such a phenomenon when the feedback information and the original information play the same role, joining to increase the total input. It can make the system deviate from its goal and thus increase

the instability of the system.

For example, in some families when children’s study is affected by computer, parents would always take measures to forbid their children from playing it, which can cause a positive feedback through such an action that has the same role with original information. When children are forbidden to play computers, they would go to the Internet cafes, which will make the total input that harms children’s study increase. Surfing the Internet without supervision leads to a poorer grade (an unstable system), and even net addiction. (See the positive feedback diagram)

Positive feedback is a kind of linear thinking. The traditional Chinese thinking strives for the golden mean, emphasizing that we should do everything with a good grasp of the degrees and combine hardness and softness. Obviously, the negative feedback happens to have the same view with this thinking model.



The positive feedback diagram

Negative feedback communication

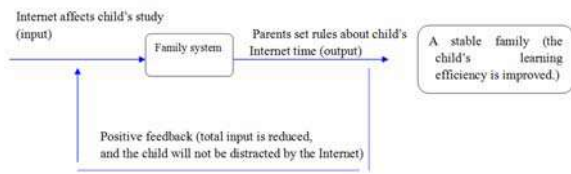
When there are too many positive feedbacks, some negative feedbacks are needed. That is to say, a reversed impetus should be added to the system. This is just like turning the steering wheel. If the amplitude is too large, drivers should turn back the steering properly. Therefore, the teenagers’ rebellion and the family frictions constitute a good negative feedback which is beneficial to the system.

In the 40th chapter of Laozi there recorded that the motion of the way is to return. Here, the word return has the meaning of reverse and circulation. What the whole sentence means is that turning to the opposite side is the law of the way’s motion. According to Laozi, the law of turning to the opposite side exists in all the things in nature, including dynamic and static, virtual and actual, forcefulness and tenderness, and softness and hardness, etc. This kind of opposite and complementary relation is the power that pushes forward the development and changes of everything.

The law of return is also embodied in negative feedback, in which the feedback information has an opposite effect with the original information. As a result, the total input will be reduced, making it deviate from the system target, and thus making the system stable. Take driving for instance, when the driver drives too fast, the car will be in an unstable state, so it is necessary for the driver to gently step on the brake to reduce the total input in order to have a stable car system.

Take family education as an example, though playing computer will affect children’s study, parents should take children’s entertainment and learning needs into consideration, and allow their children to play computer at home with a limitation. This behavior can cause a negative feedback that has a different role with original

information. When children’s demand to play computer is satisfied, they will concentrated on their study since the total input is decreased, and their learning quality can thus be guaranteed (a stable system). (See the negative feedback diagram)



The negative feedback diagram

The Optimal Regulation and Control Pattern in Family System—the Separation from the Object

British psychologists Winnicott and Anna Freud are founders of the object relation school. They pay great attention to the influence of family relations on children, holding that parental anxiety will disturb children’s emotions, and they think children’s (even adults’) mental health problems have something to do with parental rearing pattern. The final achievement of parental education is a separated relation with their children.

The definition of object

The term object was first used by Freud. For infants, object refers to anything that can meet their needs. For children, object can be exchanged with the term other, and the object relation is a kind of human relation. In object relation theory, object refers to a person towards whom one’s personal will, feelings and behavior can be directed. In other words, an object is a nurturer, who plays an important role in children’s mental development. Parents or grandparents usually act as an object, playing the role of a mother in a broad sense. According to object relation school, whether a person can build trust and friendly relationship depends on the object relation in his early life. A child who is always loved by his or her superiors properly is able to build the fundamental trust to life and others, and he is always a person with confidence. Otherwise, it is common for him to feel anxious and inferior.

When the child grows up, the personality power from the nurturer will change into the “a mother in his mind”, namely, an inner object. This power will follow and influence the child’s whole life. The so-called inner object is not just a person, but also includes the interpersonal relationship that related to this person. In children’s memory, the interactive information from their parents is always there, including appreciation, encouragement, derision, control and punishment.

Freud, a representative figure of Frankfurt school, holds that most people’s emotion level is the same with that of three-year old. The British psychoanalyst Fairbairn believes that the experience in one’s babyhood is very crucial since it will turn into a kind of interpersonal relationship. From his perspective, adult, in nature, is just a large-sized infant. In everyone’s subconscious mind, there is a

need to keep the spiritual relations with their parents, which cannot be perceived intellectually. Therefore, in our lifetime we are always the products of our parents’ words and deeds since we repeat our parents’ expression, actions, habits and way of thinking unconsciously. Parents, as the core of the feedback mechanism, regulate and control the children’s whole life.

The most effective regulation and control method of negative feedback—the separation of children and parents

Separation, which clearly reflects the movement principle of positive and negative feedback, is a very important concept in the object relation school.

To put it simply, separation is the individuation process of infants. According to modern psychoanalytic theory, experience during the first two years of a child’s life is pivotal to the formation of his personality. The interaction with their parents during this period is the determinant. As a newly born baby, a child wouldn’t be separated from his mother, either physically or mentally. His mother will try her best to satisfy any demands of him without hesitation. The positive feedback incentives during this period will make children feel that they were the center of the whole world and nothing is impossible. Since every mother has her own work and life, she cannot build all her life around her children. Therefore, some negative feedbacks are needed. With the occurrence of negative feedback, some of the children’s demands will fail to be satisfied, which will bring some shocks to the children in the beginning. Gradually, children may feel confused and disappointed, and some kind of resistance will occur. In this case, however, if the mother manages to handle it properly by refusing or satisfying the child’s demands conditionally, she can help her child find an independent self gradually, realizing that he and his mother are two independent individuals that can never be bundled together forever. This process is named separation. It is critical to the cultivation of child’s independent personality, and also is the price for love that everyone should pay.



Diagram: the process of the separation of mother and child

Some Unsuccessful Regulations and Controls—Fusion, Fission and Double Bind

Two extreme cases, namely, fusion, fission and double bind, will occur if some mistakes on system regulation are made by the mother during the separation process, and these mistakes will lead to the child’s failure in integration.

The fusion feedback model

From 1952 to 1959, the psychiatrist Bowen, founder of family system theory, has been conducting a study on some schizophreniacs and their family members. He settled them in hospital and observed them systematically. Through his observation, he found a very special mother-child relationship--the parasitic mother-child relationship. Under this relationship, thoughts and feelings of the

child and the mother are totally the same, and they can even feel each other's physical pain. The term unresolved emotional attachment was then used by Bowen to describe this lowly separated attachment. They will keep this kind of interpersonal model (named fusion by Bowen) when they grow up. Fusion is an unsolved attachment state.

Many artists and scientists who remain single and live with their mother all their life all have such a personality as emotional fusion. These individuals include the Japanese director Yasujiro Ozu, the French Impressionist Seurat and the Russia mathematician Grigori Perelman, etc.

The fission feedback model

Fission is another important concept in object relation school. There are many factors that can cause such a fission state, such as the shortage of mother's care, the lack of caress and hug, the failure of mother's negative feedback. All these deficiencies will join to making children feel confused about the reason why his or her obedient and great mother would turn into a ferocious, indifferent and unnatural one. Klein concluded that in the early process of experience formation, if the mother has a sound regulation, the child can accept the two mother images, namely, the tender mother and the strict mother, as one. They can successfully integrate these two worlds, and this capacity will shape an adult with mature and stable emotion. On the contrary, if the mother is too emotional to act as her old self, the child is very likely to regard her as two individuals, which will cause the child to escape from the reality and give him a one-track idea that he has been deceived by life.

These two images of motherhood represent the versatility of humanity. Though it is just as natural as the coexisted plants and animals in the primeval forest, it is completely beyond the comprehensive ability of infants, which will eventually cause a certain degree of fission. The outlook formed under this state will make people unable to adapt to the normal society and unable to maintain a normal marriage and family relationship. Worse still, it may give rise to a dual personality or other mental diseases.

5.3 Another fission—double bind

In 1956, Gregory Bateson put forward the Double Bind Theory—a theory on the cause of schizophrenia. For example, he said, if a mother turns round and ignores her baby when she is saying "I love you" to the him, the baby is then in a state of double bind. Faced with this situation, the child who extremely relies on his mother both physically and mentally cannot express his contradictory feelings towards his mother, and he cannot make out whether his mother loves him or not. If things go on like this for a long time, the child is very likely to develop schizophrenia. Those parents who impose double bind on their children are actually the victims of a lowly separated family. The Double Bind Theory gets to the root of the phenomenon that a child cannot integrate the various contradictions in life. Therefore, it can be named as fission.

Differentiation of Self—a Complete State of Family System Control

The term Differentiation of Self put forward by Murray Bowen—the founder of family systems theory, is a core concept of family systems theory. It refers to a person's ability to differentiate sense and sensibility.

Differentiation of self vs. double bind

According to Bateson, double bind exists everywhere in the universe. The phenomenon that the uncertain weather will make people confused is an example of it. But on profound reflection, he puts forward an ideal way to overcome the double bind from the perspective of the system-wide ecological thinking. To overcome it, people are required to think from different levels, to understand the relationship between different cultures, and to know that efficiency and procedures vary from person to person. They should also aware that truth is not necessarily one and that different truth may not be contradicted to each other since they are true in different dimensions.

We notice that Bateson's attitude towards double bind is an embodiment of separation indeed. With separation processing, some contradictions that seem to be in a dilemma are always caused by our static and one-sided way of thinking. If we can think it in a dynamic way, and take a deeper look at the whole process from the different levels of sense and sensibility, we can always find a fulcrum that can improve these two conditions. This fulcrum is termed differentiation of self.

Differentiation of self—the complete state of separation

A person who has a strong ability in differentiating himself can often keep calm when he is making a decision. More importantly, he can retain a distinct boundary with others in personality, free of the influence from others' emotions. This is an important symbol of an independent personality. Differentiation of self and separation correspond to each other, and we can put it that differentiation of self is a complete state of separation.

According to the differentiation of self theory, the differential level varies from person to person. Some people are impulsive and emotional. They give few thoughts to a long-term plan and have no definite aim in their life. Others are too rational, and they shrug off sentiment, acting as cold-blooded animals. Only those who have a high differential level can keep a good balance between sense and sensibility, but there are very few such people. Therefore, frictions exist in most families, with the only difference being the quantity and level of these frictions. To respond to this phenomenon, Bowen put forward the concept of emotional system.

The detecting system of the differentiation of self—family emotional system

Bowen assumes that there are similar sorts of rules in all population. Though not stated explicitly, these rules can be felt by everyone, just like the social customs. In some families no conceivable topics are forbidden, while in other families there are so many taboos that the child will be interrupted when he starts his topic. There are also some families where no problems seem to exist. The fact is, however, that family members in these families just never touch such subjects. This is what Bowen called emotional

system.

In those families with low differential level, i.e. families with an unhealthy emotional system, some little incidents which offend the family taboos may trigger family wars. On the contrary, those families with high differential level, i.e. families with an unhealthy emotional system, can resolve family conflicts rationally and fairly. In such families, children's bad habits can be found in time and handled properly. On the other hand, as for families with a healthy emotional system, they pay much attention to children's education but with proper sensitiveness. They will not damage their children's self-esteem for their occasional act of theft, and they won't regard children's common mental health problems as mental disorder.

Conclusion

Almost all of the parent-child relationship and personal growth problems can be analyzed with these feedback models, namely, separation, fusion, fission and double bind model. But, just as Fairbairn put it, there is no perfect parenting. According to report from the therapist of object relation, problems that are bound to arise will eventually arise even if parents raise their children following the object relation theory precisely.

Separation cannot be achieved at one stroke, and the regulation and control of a complex system is always a dynamic process. The ego psychologist Jakobson also emphasizes that it is impossible to define whether a parenting is good or bad from an objective perspective. Since every child is a specific system, the same method when matched with different children will have different results. There are two match patterns. The first one is the match of temperament. For example, the mental feelings will be different when two children are shoved onto the ground, with one child being apt to feel frustrated and the other child being strong. The second pattern is the match of mother and child. For instance, when an emotive mother is matched with a quiet child, the mother's

anxiety will have relatively less disturbance to the child.

Therefore, children, parents and families belong to a social system as well as a life system. Whether children's growth will live up to their parents' expectations is actually unforeseeable and uncontrollable, because parents themselves are a part of the family, and they also take part in the self-construction process of the system while they are accompanying their children. Following this logic, both children and parents are part of a family system. Though positive and negative feedback are still there, parents are no longer the sole centre of the regulation and control of the system. Instead, the regulation and control process turns into a whole interaction between family members. A family is a dynamic system constructed by every member in the family, and all its members are closely related. For this reason, increasing interaction between parents and children becomes the most important content of family education. Provided that there are good regulations and communications in the family, children will try to integrate the internal system resources to get rid of their immature emotional attachment to their parents and thus to develop their independent personality.

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On Role Analysis of Rural Intellectuals in Bottom Struggle: Based on Peasant Collective Petition in Chi Zhou, Anhui Province

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Abstract: During the process of peasant collective petition, the role of Rural Intellectuals are mainly responsible for planning and coping. However, in the proceeding of struggle, their roles are critical and professional intellectuals which overlapped. Based on peasant collective petition in Chi Zhou, Anhui Province, combined with some sociological theories, this article will explore the roles of rural intellectuals. Mostly, professional intellectuals are to petition, and critical intellectuals are to hold meetings, discuss how to cope with government.

Key words: Peasant collective petition, rural intellectuals, bottom struggle, role analysis

Introduction

Professor Qin Hui, historian, Tsinghua University, classified the reason of the peasant uprising into six categories: (1) The government abuses the financial resources of the people, extorts excessive taxes and levies. (2) The government employs tougher economic monopoly. (3) The government controls registered permanent residence strictly, which leads to two results, one is the people who want to migrate are restricted, the other is the people who don't want to migrate are forced by government to migrate to remote areas to plant crops. (4) Corruption and extortion of the government bureaucracy are seriously. (5) The government and folk organization's fight for resources between each other. Religion organization provides a form of folk association, which is not allowed by the government, so they are conflict between officer and civilian. (6) The social factors such as natural disasters and foreign aggression. From this quote, it is not hard to find that the reason of peasant revolution (uprising is one of the peasant revolution) is interests competition between officials and people. In short, for the central government, what they want is the dominance of country, and for the people, what they want are their undamaged interests. Contradiction is that the political power is uncontrolled, because of human nature of greedy and selfish etc., which lead to people being hurt by the officials or the power of government. When people in desperate circumstances, they will choose to fight and revolt. For example, Chen Sheng (陈胜) and Wu Guang (吴广) revolution (Daze Village Uprising) etc.

However, since new China was founded in 1949, China has no peasant revolution, but there are new forms of conflict between

government and the people, such as mass incidents and peasant collective petition. To a certain level, the conflict of interests often can eventually evolved into political conflict, and then the central government worries about social stability and utilizes the thought of stability and settle. This is a standard format for government to solve the grassroots level conflict.

This article analyzes cases after context of 1949, and we choice the DJ community (in city of Chizhou) as object of analysis. Through participatory observation, the community is a typical urban village and it has three rural enterprises, and the DJ community's leader is Y, he is also a head of an enterprise of local companies. So, he has two roles, one is the entrepreneur, the other is the village cadres.

China has a proverb that "Human beings die in pursuit of wealth, and birds die in pursuit of food"(人为财死,鸟为食亡). Therefore, when the village enterprise to share out a year-end bonus and the conflict also arise. Village group launches a secretly internal rules that who has registered permanent residence of this village is eligible to share the "a year-end bonus". If one whose registered permanent residence migrated but now wants to move back, he needs to pay 20000 RMB to the leader of village cadres, including married women whose husbands are not residents of this village and died, but their parents still live in this village, their registered permanent residence is allowed to move back by law. The internal rules cause dissatisfaction of people whose registered permanent residence are not in this village but can move back. Because, according to the stipulations of national laws, these villagers' registered permanent residence can be moved back. Villagers think that the internal rule is unreasonable and it is "the second central

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government”, so they take collective petition to against this rule.

In this situation, problem is followed that isn't there a leader for peasant collective petitions? According to our research experience and the data of peasants rebellion, it is easy to find that there exist leaders, and even someone conspires behind their (petitioners) backs. They are our research objects, because they are true leaders and whether or not to appear in the front of the battlefield, they have some knowledge and certain intelligence and live in the countryside for a long time, which provide situation for them to struggle as leaders. We call them the rural intellectuals.

In this article, based on the classification of “Intellectuals at a Crossroads”, here we classify intellectuals into three types: organic intellectuals, professional intellectuals and critical intellectuals. So, the problem is that for rural intellectuals when they are counsellors or leaders, when to take on the role of professional intellectuals, when to act as organic intellectuals and when to play as critical intellectuals? In other words, at different times, do their roles crossed and overlapped? This is what we want to analyze in this article.

This article mainly uses three research methods: participatory observation method, structured interview method, literature method. From the end of 2014 to March 2015, we started from Wuhan, Hubei Province to Chi Zhou, Anhui Province, researched for one week in the urban village Chi Zhou, interviewed the village party secretary, the village director, secretary of the village party branch and petitioned villagers, observed petition preparing “secret assembly” twice. In March 2015, we made telephone return visit. In addition, this article is to take the embedded discussion, that is, the combination of theory and experience.

Before the discussion, we need to define rural intellectuals and the bottom struggle, because the two concepts of this article are very important. From

2. Definition: Rural Intellectuals and Bottom Struggle

2.1 What are rural intellectuals

The concept of intellectual originated from the west and appeared in the 1860s or so. There are two traditions from Russia, Poland and France. Nowadays, for the concept of intellectual, there are two kinds of statement. One is intelligentsia. The word comes from eastern Europe and mainly refers to a group of people of Russia and Poland at the end of the 19th century, they were born aristocrat and accepted the western education, dissatisfaction seriously with the status of the autocratic monarchy in Russia and Poland. Xu Jilin describes them as “a group has a sense of alienation from the mainstream society, with strong critical spirit, especially with moral criticism consciousness of community”. The other is intellectual, this word comes from France, which is associated with a public event. In 1894, Alfred Dreyfus of France was sentenced to life for suffering injustice. A group of writers, artists, university teachers, journalists such as Zola and Hugo signed the petition “I accuse” to protest Alfred Dreyfus’ unjust event. Later, the petition was known as the “intellectual protest”. Although the word with a certain derogatory

sense at first, but it mainly refers to a group of people with certain education and a sense of community, be called as intellectuals. However, such a definition largely expanded the scope of the original concept of intellectuals.

In China, since ancient times there was a stratum whose main body was intellectual, we can call them “Shi” (士). Yu Yingshi thought that scholar-bureaucrat pay more attention to knowledge. And Scholar-bureaucrat “taking the world as their own duty” which is similar to the western Christian religious sentiment, therefore, China’s “Shi” is more close to the “intellectuals” of west. However, after the perdition of Qing dynasty, intellectual is different from the traditional “Shi”, and there are more intellectuals that with certain education, engaged in a certain profession, and stronger than the average person in profession, such as journalists, lawyers, scholars, teachers, etc. Therefore, broadly speaking people with a certain culture can be called as intellectuals.

In rural area of China, country gentleman system was mostly collapsed from CCP landed reform in about 1947, because CCP hoped to set up a new order through political authority, but has not finish yet. However, there is a decay situation of rural governance, such as decay of village order and rural public affairs. At the same time, rural order keeper is no longer the elder but the law, except some places influenced by kinship or lineage. In the past, when the villagers had conflict with others, they would ask the elder to mediate, but now they will ask prestigious people to mediate, such as veterans and retired elementary school teachers. Usually, they often had a little education or read some books, so they are the host of rural social justice. Nevertheless, not all the conflicts are within villagers. When there are conflicts between villagers and government, they will criticize government based on the moral high ground. Therefore, from the above, it can be seen that the so called rural intellectuals mainly refer to the people get some education and with certain mind. What’s more, based on the moral level of the irrational phenomenon to take a critical stance sometimes.

2.2 What is bottom struggle

In 1990s, Charles Tilly, Adam, Tarot, and Elizabeth Perry formed “an invisible college of contentious politics” at Stanford University. Elizabeth Perry said “The project held meeting 2-3 times every year, and invited other four scholars to participate in, including me as the only one to research outside of Europe or the United States. We are trying to think about the new way to research social movement. We use the words “contentious politics” to highlight the importance of the country, and to emphasize that the struggle is political, and that the state is one of the key actors involved in. In her opinion, China is the best laboratory to research contentious politics in the world. China’s contentious politics can be traced back to the third century BC. (Zhang, 2010) Subsequently, Yu Jianrong explains what is “contentious politics” Yu said that since reform and opening-up, with the rapid transformation of social structure, new social identity and social identity groups had come into being in China. Political expression and interests maintenance activities of

social actors become an important issue in socio-political life. They have their own unique beliefs, cultural values, strategy and clear objectives. This change of political subject consciousness caused the external manifestation of people’s struggle consciousness. Such a kind of external manifestation of the underlying people’s struggle consciousness transferring into the behavior or action can be interpreted as the bottom struggle or contentious politics. The reason to call it as contentious politics is that it is original for rights protection and social movements, etc. In addition, on specific fact, bottom struggle is mainly against government, but not the confrontation between people. The confrontation between the government and people makes people to fight for their weakness, to resist government to hurt people’s interests. Therefore, bottom people’s “resistance” and “fight” are behaviors with strong interests demand of underlying contentious politics. This article argues that like social movement, revolution, mass incidents, peasants petition etc. Belong to the bottom struggle whether it is temperate, violet or radical. Whether it is with language or act, if it with the behavior of interests or rights demands, it is bottom struggle.

3. The Embedded Understanding: Theories and Cases Analysis

This article takes three theories to understand the bottom struggle of rural intellectuals. It includes the structural functionalism, conflict theory and social interaction theory. The reason to chose these three theories is that the peasants petition of Chizhou has factors of structure, both sides of the conflict and interaction during conflict.

3.1 Structural functionalism

Structural functionalism is one of the modern western sociology theories. And society is a system with certain structure or the means of organization. Parts of the society relate to each other in an orderly way and play a necessary function for the overall society. Whole, exists in a balanced state and any part of the change tends to a new equilibrium.

In fact, the basic principles of structural functionalism is from biology dominant developed in the 19th century. Comte and Herbert Spencer puts forward the basic principles of functionalism: society and biological organisms are similar in many aspects. The main contents include: first, social and biological organisms have the same structure. An animal is composed by cells, tissues and organs,society is composed by group, class and social settings. Second, like organisms that if a community wants to continue, it must meet the basic needs of their own. Third, similar to the various parts of the organisms, and each part of the social system also needs to coordinate to play a role in order to maintain the benign operation of the society.

And Parsons suggests society needs to satisfy four basic needs to exert its function, that is to maintain its stability. These are sometimes referred to as functional requisites of the four basic requirements: (1) the target acquisition; (2) to adapt to the

environment; (3)integrating different parts of society as a whole; (4) control of the deviant behavior. Parsons had emphasized the satisfaction of social integration function. He considered these shared values stick the society together. If too many people refused to accept these values, social stability will collapse.

Table 1 AGIL model

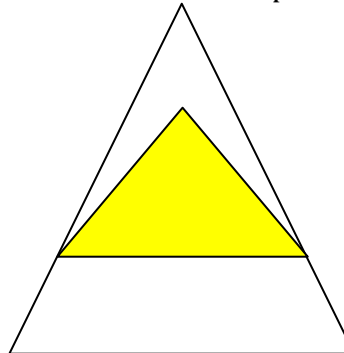
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His student Robert Merton (1968) improved the functional theory and made it more conducive to empirical research. Merton thought it was not all parts of the social system plays a positive function. When a certain unit of the social structure to prevent the needs of the whole society or the needs of parts, it is dysfunctional. This means that not all subsystems actively maintain and construct the social order, some played dysfunctional effect to the society.

3.1.1 Structural functionalism and peasants petition

For peasants petition, if “central government—local government—peasant” as a system, how to use structure functionalism to explain peasants’ group behavior? (1) according to Spencer that social and biological organisms have the similar structure, in peasants’ contentious politics behavior, power structure of the system is a pyramid:

Table 2 The structure of social power



It can be seen from table 2 that yellow triangle is the local government, when they face the part under the yellow (petition peasants), it also has considerable power. The whole triangle is the organ of authority of central and local government. The part under the yellow triangle is peasant group who with less power. When they suffering damage of interests, there is no room for resistance. According to “Opinions on solving the outstanding problems of letters and visits by innovative mass work method” 《关于创新群众工作方法解决信访突出问题的意见》(May 2014), peasants cannot petition leapfrogged. So, peasants face first is the power of local government not the central government. (2) A society must meet its basic needs to continue. For the peasants, their basic needs are their interest with no damage. According to our country survey for many

times. Experience has taught us that the interests of peasants from harm is the basic survival can be maintained. For example, we investigated the city village in Chizhou, found that the interests of the peasants to appeal is the village collective enterprise bonus issue. And whether the enterprise bonus is dividend or not, it decides by the village team leader alone, which will undoubtedly lead to bend the law for selfish ends of the village team leader when the case of village affairs aren't open, causing the unfair feeling of villagers and petition to fight for interests they deserve. The interests of the central government lies in local stability and society stability. On the one hand, the central government uses personnel appointment mechanism to deal with officials of local government, for example, if there is peasants petition, it will firstly consider the local officials don't do things well for government.

But the power of local government originates from central government, not from bottom by election. So when the demands of the central government is not satisfied, they tend to avoid the duties of local officials, but the key point is that "Wushamao" 乌纱帽 (official position) is one of the things local officials care about. On the other hand, the central government hopes through this petition channels to obtain the governance performance of local officials, and encourage the free airing of views, and listen to people's voice. Undoubtedly, this helps central government, but local government throws the helve after the hatchet, because it is the chief criminal to people, and the "hatchet man" to central government, helping to maintain social stability. What's more, for local governments, their appeal lies in the fact that peasants don't "make trouble" (petition), Based on such evaluation standard, local officials are often promoted for "zero petitions" (零上访), and also to win more benefits, and such benefits increases with power. "The various parts of the social system also need to be coordinated to maintain the healthy operation of the society." Whether it is the central government, local government, or petition peasants, each role of the three parts is embodied in: central government introduces relevant policies on the institutional expression of public opinion, and local government needs listen to people's demands, timely solve the peasant's problems, not to solve peasants' struggle with rude way and not to be with the mind "people are making trouble". And peasants need to act within the framework of the legal system, can not take violence to overthrow the police or personal security attacks, such as "perish together". If all the actions within the system, then society will be in benign operation, and to solve interests demand through coordination, consultation, legal system.

Above is three important conditions of Spencer's structural functionalism theory and we have analyzed one by one. The key issue is that how the peasants, the central government and local government work in the AGIL model? We might as well put the Parsons' model applied in the specific process of peasants petition to understand, please see table 3:

Table 3 AGIL model and peasants petition

Adaptation	Integration
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peasants adapt to the behavior regulations of the government.	Adjustment and integration with the relationship between government and peasants' interests by legal documents.
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Goal attainment	Latent pattern maintenance
peasants want to fight to get the benefit of their compensation and social fairness, and the government hopes that peasants do not make trouble.	Government maintains the existing order through laws, customs, etc.

Through table 3, we can find that if put specific case into the AGIL model, peasants and government often have their own purposes in the political struggle, and different sub series have different functions. On the one hand, the government doesn't face peasants' interest demands and fair appeal, think that peasants' struggle is "making trouble", and what peasants hope to achieve is exactly the government will not face up to--fairness and interests. At the same time, central government wants to reduce the pressure by law (a form of integration), such as the regulation in May 2014: "No leapfrog petition", but it is ineffective. So, this is not applicable, but likely to aggravate non institutionalization of interests expression. If peasants do not want to beyond the pale of government law, then there will be a "overthrow the police car", and even take violent resistance, such as revolution. This is a cornered struggle in Chinese history, and also the final choice of peasants. As Parsons said, if people do not accept this set of values, then society will face collapse.

Meanwhile, Merton argues that "not all parts of the social system plays a positive function, when a certain unit of the social structure prevents the needs of the society as a whole or components, it is dysfunctional." For example, after the document stipulates "no leapfrog petition". It not only does not reduce peasants' grievances, but increased hinder of peasants to express their interests, played a reverse function. Therefore, peasants don't believe local government, who think "the central government is good, but the local government is bad". Under the circumstances, peasants choose to seek help from central government not the local government, so as to put pressure on local governments to solve problem. However, local government's power is form the central government, when petition reach central government, it will be back to the local government, which will make local government angry, because peasants complain to its superior. So, it increases the possibility of further victimization of peasants at last.

3.1.2 Summary

By analyzing theories of Spencer, Parsons and Merton combined with the case, it can be understood more clearly, in structural functionalism, what is social operation based on power, interest, fairness. For peasants, they are at the bottom of the power. Although "Law for Village Committee" (村组法) was published in 1988, giving villagers corresponding power, it is formalistic. Just as

investigators saw in Chizhou peasants collective petition, if a villager is not a party member, the village party secretary will not let him attend the meeting, then he is with no corresponding participation rights. If the village committee needs to pass a resolution, the village party secretary tends to “people on his own side” into the scope of the agreement, so that no one would oppose him. In the upper level of the power structure, the central government is not willing to see such a situation, but the local government has chosen to do like this. Local government is not only comply with the laws and regulations of the central government, but also some local officials take violent way of governance, such as beat petitioners, threat personal safety of petitioners and their families, so as to make them give up and stand unfair treatment. How long can peasants stand? After all, their interests are hurt. Such governance behavior often leads to revolution like Chen Sheng and Wu Guang (Daze village Uprising) in Autumn 209, when AGIL model is ineffective.

3.2 Social conflict theory

Social conflict theory is a western sociological school formed in the middle and late period of 1950s and it against the dominant structural functionalism. Coser was against Parsons’ one-sided view that conflict only with destructive effect and. tried to combine the structure function analysis method with social conflict analysis model, to modify and supplement Parsons’ theory. He thought that conflict had the positive and negative functions. Under certain conditions, the conflict had the function of ensuring social continuity, reducing the possibility of the two poles, preventing the rigid social system, enhancing the adaptability of the social organization and promoting the social integration. Also as a representative of conflict theory, Dahrendorf thought that social organization was not a balanced social system for seeking equilibrium, but mandatory coordination complexes. The different position of the social organization is with different amount of authority and power. The distribution of this unequal authority inherent in the social structure divides the society into two opposing groups, the ruled and the ruler. Under certain conditions, quasi groups show as obvious interest groups and input into open group conflict as collective actors, which leads to the redistribution of internal authority and power of social organization, society tends to stability and harmony temporarily, but the redistribution of authority is also the institutionalization process of the new ruled and the ruler. There is crisis of conflict in harmony, once the time is ripe, the members of society will be re-organized to enter another round of competition for the power. Social reality is the cycle of conflict and harmony, and the dialectic of power and resistance is the driving force of history. So, Dahrendorf’s Theory is more suitable to understand the mass conflict between villagers and cadres. And Karl Marx also have a place in the social conflict theory, he thinks that: (1) The more the government allot scarce resources unfairly, the conflict will be more serious.(2) By the growing awareness of the real collective interests of its rulers, the ruled are more likely to doubt the legitimacy of the distribution model of

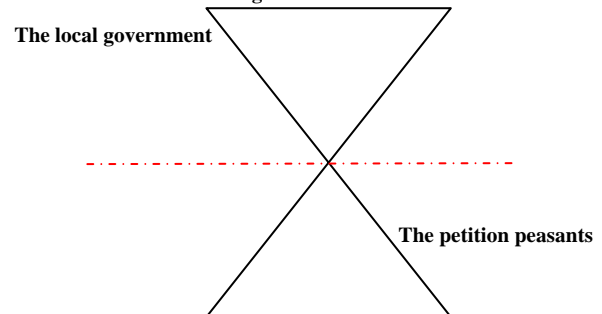
scarce resources. It is interesting that when the residual value(include other values) led and used in Russia by Lenin, the theory of conflict become “class struggle” 阶级斗争 (Lenin’s original). In China, the class struggle happened many times since 1949, such as the “cultural revolution” from 1966 to 1976,etc. Of course, we are only discussing Marx Karl theory of social conflict, rather than the theoretical practice after being alienated.

Anyway, since the emergence of social conflict theory, it has caused great repercussions in the western community, and it soon penetrated into the experience of all branches of sociology research, for example in the political sociology, organizational sociology, race relations, social stratification, collective behavior, marriage and family, and so on.

3.2.1 Conflict between peasants and local government in the perspective of conflict theory

As previously mentioned, collective behavior in conflict theory is also included as one of objects in the study. The case of peasant collective petition in Chi Zhou and this article cited also belongs to a kind of collective behavior. According to our investigation that their petition has been on nearly 3 years, and the main conflict is between the local cadres and petition peasants. Because the former is the agent of power, it can be understood as a conflict with local government. However, it seems that the only solution of the conflict is time: the government to take procrastinating strategy and petitioners with no retreat.

Table 4 The conflict between petition peasants and local governments



On the one hand, the conflict between local government and peasants mainly happens near the red line. The inverted triangle above the red line represents the relations between local government and central government. central power is often greater than the local power. Local government as a central authority agent and “night watcher” (守夜人), form the opposition with peasants for the struggle of interests. The triangle under the red line, figures as mass leaders take resource mobilization and other ways to fight the local government (Mass leaders in this article are regarded as rural intellectuals, which will be discussed in detail in the fourth chapter). Coser said social conflict would generate not only negative function but also positive function. In this case, the relations between the people of Chizhou and government aren’t reconciled because of the conflict, but the conflict of interest between villagers and village cadres is aggravated when the leader/rural intellectuals hired a

lawyer. So Coser's view is not more suitable than Dahrendorf's in this case to explain the conflict for interests and fair. Dahrendorf also thought "The society tends to be stable and harmonious, but the redistribution of authority is also the institutionalization process of the new ruler and the ruled. There is crisis of conflict in harmony, once the time is ripe, the members of society will be re-organized to enter another round of competition for the power. Social reality is the cycle of conflict and harmony." But in the before and after, there are almost dozens conflicts between peasants and the government. Although there is a short harmony for the superior government to reconcile, finally the development of the contradiction is intensified. And even, there is someone said "to kill village cadres". This is already the most extreme performance of conflict.

If you use Marxist theories to explain, you can see scarcity of resources is a lack of fairness in Chinese civil society. Because, the power of government is without control, and backlog of resentment accumulated to a certain extent for a long time. Peasants will doubt whether or not the CCP is still the people's party. Are the original commitment of "mass line", "don't get masses stitch and serving the people" and other political slogan still useful? Such legitimacy is suspected, which will lead to no obedience to authority and distrust the local government.

There are also conflict among villagers, mostly for interests, and the concept. For example, some petitioners leader want to do like so, while the rest of the masses want to do in other ways, then how to do it become a conflict and divergence? At the same time, if the local government use money to buy the support of petition leader, then other people will feel he is a traitor. After, he can't live inside the village. So, there is conflict among villagers. However, the main conflict is between villagers and local government.

3.2.2 Summary

From the above discussion, both Coser's theory and Dahrendorf's theory can explain the peasants petition. The key point is which one has greater explanatory power. As we mentioned previously, whether positive function or negative function is difficult to occur in the area of conflict. And Marx's theory, after alienation, often characterized by the fight triggered by land, such as the Chinese revolution in nineteenth Century. It seems that there has been always the contradiction between the government and the peasants, so it is difficult for them to integrate because of conflict. From what Morton said was that negative function was in the continuous intensification. From Parsons's AGIL model, if the order can't be integrated finally, then there can only be a social collapse.

3.3 Social interaction theory

Social interaction is one of the basic unit of analysis of sociology, it's the main topics of the microscopic sociology. It is the intermediary of individual level, social structure and cultural level, and it is the turning point of the system from individual to group and even greater social organization. First, the connotation of social interaction is: (1) social interaction must occur between two or more

individuals. (2) social interaction not occurs between individuals and groups with mutual contact, it occurs when there is interactive behavior. (3) social interaction is based on information dissemination. (4) social interaction is always carried out in a particular situation. The same behavior have different meaning in different time and different occasions. (5) social interaction can be face to face, it can also occur in a non-face-to-face situation. (6) social interaction will have a certain impact on the interaction between the two sides and their relationship, and it may have a certain role in the social environment. (7) the interactions between individuals tend to follow certain behavior patterns, with certain interactive structure. Second, symbolic interaction follows three factors: (1) there must be two or more interaction subjects. (2) there must be some form of contact between the interactive main body. (3) the parties involved in the interaction are consciously taking into account the meaning represented by the action "symbol" At the same time, Meade thought symbolic interaction was a sociological theory that emphasized the importance of sign and meaning in interaction. H. Brummer, Meade's student summarizes three principles of interaction theory on his basis: (1) According to the meaning that we give to things, we act on it. (2) The meaning that we give to things is the result of social interaction. (3) Under any circumstances, this interpretation process usually includes what Meade said role use that assume the role of others and try to understand someone else's thoughts and emotions--intrinsic interpretation process, we communicate with ourselves. Again, the role and interaction are inseparable. On the one hand, interactive sides should follow a certain role norms to conduct exchanges. If role of one side imbalances, the direction of the interaction may interrupt or change. Interaction also depends on the ability of people to play the role of others, which enables people to recognize and understand others, and to predict the reaction of others. On the other hand, without the other side to interact, the role loses the dependency. There is theory like social exchange theory, Goffman's dramaturgical theory etc. attempt to explain dynamic relationship between people and people, man and society. Whether it is from the dimension, breadth, or depth to take the interaction of language or non language, it intends to surface meaning. Social interaction is a very important aspect worth to pay attention to in our daily life.

3.3.1 Peasants and government under the perspective of social interaction theory

In the perspective of social interaction theory, there are two interactional dimensions in Chizhou peasants petition, one is between peasants and the government, one is between peasants and peasants. Interaction of the former deepens continuously because of the interests and fair appeal, finally the peasants go to the central government to appeal their interests, hope that the central government will be able to give them justice. This is a kind of interaction between groups. The other is the interaction between individuals, or the interaction between the individual and the masses. This article argues that when the leader of the peasants' petition

treats petitioned peasants, there is the interaction between the individual and the group. For example, when we investigated the village, the petition leader received us and then called other petitioned villagers to take part in a meeting in a hotel. As a result, interaction occurs in the process of calling and meeting. At the same time, the dialogue between them is also a kind of interaction between groups / individuals and groups, especially in the process of the

interview.

For the role, we are investigators, they are surveyed, so, different roles lead to different content of language interaction For investigation, they will tell us what they suffered injustice, and for their leaders, they pay more attention to how to petition? How to deal with the government? So, the effect of role is obvious.

In particular, we can see table 5:

Table 5 Social interaction in peasants' petition

Interactive subjects	Interactive contents	Interactive forms	Remarks
villagers and villagers	Petition strategy, etc	hold meeting and discuss	Petition leaders use telephone and other tools to convene the villagers
The villagers and the government	Appeal to the interests of registered permanent residence and share of village collective enterprises annual bonus, etc	Stop the town mayor, pull the banner in front of Town Committee, post on the Internet, negotiate with the village cadres etc.	Mainly due to the provisions of the village team leader published, if one wants to settle and share year-end bonus, he must turn over 20 thousand yuan
Meaning	To provide better strategies to deal with the chaos of the government and their own interests can be recovered	Problem may be solved	

From table 5, we can see interaction in the two dimensions of various subjects of petition very clearly, whether it is the content of the interaction, or the form of interaction, or the formation of interactive reasons and lead to the occurrence of interactive tools. However, from the aspect of meaning which is at the bottom of the table, the reason is that from the content and form of interaction, why behavior can occur? It because that the meaning plays an important role to promote the interaction between villagers, villagers and government.

3.3.2 Summary

Through the above analysis, it can be found that social interaction interspersed with each link in the process of a peasant's collective petition. Generally speaking, the reason for interaction is because of damage of interests. It is meaningful to struggle. Peasants think they are right, because they fight for the benefits they deserve, but government cadres damage their interests. Government believes that the peasants' struggle is harmful to social stability. Government carders think stability is everything. They think conflict can be reconciled, and they can come up with a new solution so as peasants not to petition. Different subjects have different considerations, but the key point is the operation of this set of mechanisms behind social interaction is very difficult, especially peasants who are in a dilemma. After all, they are vulnerable group. Just as it is shown in table 1, they are at the bottom.

4. Organic or Critical Intellectuals: Role Play of Rural Intellectuals in the Collective Struggle

Naturally, when there is group, there is leader. In this research, leaders of petition are rural elite, because thoughtful people in rural areas are often with a little cultural knowledge, relative to other villagers, they must be with more leadership ability, and ownership of capital and fighting techniques. They are often the ones who call for a struggle, because they have a sense of this. When interests is hurt, they are the conscious rural people to fight first.

At the beginning of this paper, we talked about the evolution of the intellectuals and the definition of the rural intellectuals. For this petition, the rural petitioners leader is peasant C. In our survey, he was a more thoughtful, organized villager with struggle mind. At the same time, he is younger than other petitioners. His child was 5 years old (2015) and studies in elementary school now. His wife's economic capacity is stronger than him, because her father has a certain economic strength. What needs to be emphasized is that he is a construction worker, and has seen the world.

However, there is a very strange question, why petitioner is L not C when we get the "Dongzhi County R Town People's government files" (东至县 R 镇人民政府文件)? That is to say, it is L to go to government to appeal not villager C. The first paragraph of this file is: L, county leaders have received your letter [2015] 21th file, about DJ community center village group sells registered permanent residence illegally and distributes assets benefit unfairly and so on you reflect. The reply is as follows: first, your dispute is true.....; second, hope you can communicate and resolve related issues. From the reply of this document, it is clear that: this is the interaction between government and villagers; government has

admitted that the interests of the villagers is indeed treated unfairly, and village cadres violates the law and discipline, but the way to solve the problem is communication. A month after this reply, we investigated this place again. After the first investigation, about 2 months or so, we visited villager C once again, but the problem was still not resolved.

However, this article mainly focuses on the role of villager C as a leader of petitions and rural intellectuals. Whether it is organic, professional, or critical? Of course, these can be understood under the aspect of structural functionalism, interactive theory and conflict theory. It is important that we are here to discuss it in different times, different field and role in different environment.

According to “知识分子与农村发展” (The Intellectuals and the Rural Development) that organic intellectuals help the government to govern society, such as Researcher at the Academy of Social Sciences. Critical intellectuals use conscience (e.g., we have defined above) and professional knowledge to criticize social issues. And professional intellectuals immersed in his own affairs, for example, some scientists, who just do their own experiments, publish professional related papers and books.

Here, we briefly explain the three different kinds of intellectuals. Below we will analyze role of villagers C with different performance.

4.1 When the rural intellectuals are organic intellectuals?

It is narrow, if organic only refers to the intellectuals' help to the government in this article, so we put the organic behavior to peasants into category of organic intellectuals. Because both behaviors use wisdom to help others. First of all, for rural intellectuals C, he helped the villagers, tell them how to petition more than once during our investigation. As we mentioned in the document, the petitioner is L, not villager C himself, but C put forward to struggle, rather than L, the reason to choose L is that C is older, both the village cadres and town government can't do anything with him, because if there's anything wrong with L, the carders who directly contact with him may difficult to deal with this. This is the first organic aspect of the village C. Second, during our survey, villager C also called everyone together and discuss how to fight with government. And proposed some villagers to find appointed secretary of the town the next morning, and block his way to office.

Meanwhile, rural intellectuals C hired a lawyer so as to force village leader to compromise, and asked villagers to find carders, hope to solve problem in negotiation, but failed finally. Village leader is not only compromise, but more aggressive, for the support of black evil forces and some county official.

No matter what kind of approach to solve the problem of registered permanent residence and resource allocation, villager C

acts as a conductor and intellectual contributor. He didn't appear easily, including to stop appointed secretary of the town and petition. What's more, in the process of negotiations with village cadres, he was also hide behind, let lawyer to negotiate. All these show although he does not appear, he is organic to peasants.

4.2 When rural intellectuals are professional intellectuals?

Villager C acts as the role of professional intellectuals, but he acts as a contractor more, with some construction technology skills. If C is a professional struggler and petitioner, maybe it is more reasonable for him as a professional rural intellectuals. However, fact is not like this, he struggle for his interests is damaged.

4.3 When rural intellectuals are critical intellectuals?

In the process of contact with the villager C, we asked him why petition. His answer was that “for the sake of unfair treatment. If I don't call for everyone to fight, our interests will be hurt unceasingly. Those who do evil to people will go unpunished. When he talked about the grassroots status quo in China, he kept shaking his head and sighed, criticized that the village cadres tyrannically abuse people's power, but basic government and central government turn a blind eye to this. Then, it is not accident to emerge revolution.

He criticized the government's inaction and thought the village cadres were doing wicked things. And he was a supporter of justice to fight for behaviors harm to people's interests, even though wasted much financial resources. However, he doesn't know the result.

As a rural intellectual, although he have attended school with certain culture, he is also a weak member. Although his father-in-law has a certain financial resources, his family doesn't support him and ask him to turn a blind eye to this. However, he insists again and again to fight and petition. His behaviors are because of his character, morality, justice or fair, which make him initiative to stand up to maintain the kind of order Parsons described. His criticism, more than the face to the government, but in the back--in front of the villagers and investigators. He doesn't want to offend the government too deeply, because he also hoped and cared that the grassroots government can help them to solve the problem.

4.4 Summary

From rural intellectual C, some government documents, and some materials used for petition, it can be judged that as a petitioner, villager C is more organic to peasants petition and criticize the social injustice, gangster behavior of basic level cadres. Therefore, he is more of the roles of organic intellectuals and critic intellectuals, rather than the role of professional intellectuals. If he is a professional petitioner, he may have more roles, but he is not, he has his own work and doesn't make a living at it. So, in his role positioning, there are more overlaps between organic and professional, in the face of the investigators and the villagers, criticism is more than the organic. In the face of the villagers alone,

the organic is more than criticism. And, both of them are handled good., because in the process of investigation, investigators witnessed his conversations with the villagers and investigators are different, the reason may lie in meaning. He can critic more in front of investigators. It can be understood the villagers hope to solve the problem as soon as possible, so there are more strategies.

5. Conclusion

This article mainly analyzed the roles of rural intellectuals' bottom struggle. Firstly, we made the definition of the concept. Secondly, expounded three theories respectively, added the case of peasants collective petition in Chizhou, to do "theory and experience" embedded discussion and analysis. In order use specific case to understand the theories, better explain the case with the theories, and understand the petition. Finally, we put our attention to the core issue of this article that is the role of the rural intellectual analysis. Through the division of ideal type, we believe that the roles of the villager C are more critic intellectuals and organic intellectuals. It is worth emphasizing that the organic nature of the villager C is extended to a broader level in this article, that is, the organic to peasants. Actually, such organic is not hard to understand, such as leaders of Taiping Rebellion, Hong Xiuquan, Shi Dakai and Yang Xiuqing who are rural intellectuals organic to rural peasants, because they read some books and have certain culture. Mao Zedong is also a rural intellectual. He is also with critical and organic roles, and even a professional role becoming a professional revolutionary people. They have a certain education, read many political books and understand peasants for they were born in village. Therefore, they took some strategies in certain circumstances to mobilize the masses, contributed to the revolutionary, ultimately resulting in the reconstruction of the order of the social structure, but the damage to the society was not small. In "Enlightenment is more important than revolution", it can be seen the importance of the enlightenment in the revolution and the stability of society. When a variety of different subsystems can not be reconciled, the revolution is likely to erupt. This happens to be the main purpose and practical significance of the

research on the relationship between the group of intellectuals and the social movement, the bottom resistance and so on. Revolution, need to be cut into from the perspective of intellectuals, because the destructive force is huge when leaders and the masses join up. For the people, suffering is more than the well-being.

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The Application of Mini-Course to Periodontology Teaching in Higher Vocational College

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Abstract: Periodontal disease is a common oral disease, and it has a wide and complicated variety. Periodontology, a stomatology with strong theoretic and practical character, is set in many medical colleges. As a matter of fact, however, the knowledge and treatment of periodontal disease are often not well mastered by students because of limitations from teaching environment, teaching model, teaching concept and class hour. This thesis will give a deep analysis into the teaching characteristics and present situation of periodontology, and thus explore the value of applying mini-course into the teaching reform of periodontology.

Key words: Periodontology; teaching; mini-course

Introduction

The term mini-course was first put forward and applied in America. Along with the progress of society and the wide application of computer to teaching, mini-course got a rapid development and extensive application in various courses. Mini-course is a means to spread knowledge to students by using videos as teaching aids, featuring a very strong sense of pictures, vividness, abundant resources, no time and place limits, etc.

Teaching Characteristics of Periodontology

Periodontal disease is a disease characterized by an inflammation or destruction of periodontal tissue. It can destruct, decrease or even completely destroy the chewing function of teeth, posing a grave threat to people's oral health. According to statistics, the periodontal health of our country is only about 14.5%. Basic theories on periodontal therapy and clinical skill and operation constitute the main contents of periodontology, which determine that it is a must to combine theory study and practical operation in the teaching process of periodontology. In this way, students' ability can be trained and enhanced in clinical practice, provided that they have grasped the basic theories.

Teaching situation of periodontology

The number of periodontal patient is increasing year by year, but doctors who devote themselves to the research and treatment of periodontal disease are limited. In recent years, few stomatology students work on periodontal disease diagnosis and treatment, leading to a desperately short of professionals in the treatment of periodontal disease. To explore the reason of this phenomenon, we have to proceed from the current teaching situation of periodontology.

A traditional teaching model and conception

Most medical higher vocational college education lasts for three or four years, during which more than ten specialized stomatological courses are provided, and each of them all have substantial contents. As for teachers whose responsibility is to fulfill the teaching tasks within limited time, as well as to combine theoretical knowledge and clinical cases effectively during class, it is hard for them to have effective interaction and communication with students. Periodontology, a specialized stomatological course, has a rich and complicated theoretical content, making it almost impossible for students to have a good command of its theory in a short period of time. Students of higher vocational college on the whole are relatively weak in cultural foundation, and they differ a lot in academic performance. Teachers, however, use traditional teaching model and conception in their teaching, and they always adopt consistent teaching process which has great difference with students' acceptance level. This will eventually affect students' interest in learning. Because of students' different acceptance level, it is hard for teachers to meet the needs of every student, which will then affect the learning initiative of some students.

The lack of teaching resources

Compared with undergraduate medical colleges, higher vocational colleges have fewer funds in teaching and research, and they also lack practice teaching resources. There are fewer periodontal disease cases in their teaching process, and their teaching thus has a poor pertinence. In addition, due to a high repeatability in disease category, students have long been faced with the diagnosis and treatment of the same disease. Such a teaching environment, to a large extent, limits students' field of vision, making their learning content too limited. Therefore, they cannot have a clear grasp and understanding of various periodontal diseases.

Fund: a research topic of Yiyang Medical College.

A superficial practice caused by the lack of professional periodontists

Though intramural practical and operational courses are often offered, it can never replace practice in hospital, since there is a large gap between them. School teachers are not doctors and schools are not hospitals. A real hospital environment is not available in school. It is only through hospital practice that students can master the specific treatment steps and methods of periodontal disease effectively. In fact, however, many medical colleges are short of professional periodontists, causing students to pay little attention to the process of practice. Their practice is just a formality with a short internship of about 4 weeks. This type of practice can merely teach students the basic skill of teeth clean, instead of playing its due role.

The Application of Mini-course in Periodontal Teaching Process

With the development of science and technology and the improvement of people's living standard, people pay more and more attention to tooth health. In recent years, there has shown a shortage of dentists. Meanwhile, in medical schools dental professional problems are also gradually exposed. Although periodontal disease is the second largest oral disease, the arrangement of teaching periods on it is very short, making it difficult for students to have a solid understanding of its theoretical knowledge. Additionally, the lack of practice courses and internship experiences result in a limited cases available to students. Therefore, it is very essential to apply mini-course to the periodontal teaching process.

Using video teaching to shorten teaching period and inspire students' learning interest

Under the background of a fast developing network, there is an increasing growth in the way colleges acquire knowledge, making it difficult for them to spend a lot of time in studying extra-curricular knowledge systematically. On the contrary, their demand for a learning style that is convenient, efficient and fragmentary is growing. The emergence of mini-course is just right for the demand. At present, there exist some problems in periodontal teaching process, such as the insufficient class time and students' inadequate grasp of knowledge. In this case, the adaptation of mini-course, with the assistance of video teaching, can help to organize the complex theoretical knowledge, making it systematic and simple. This systematic and simple knowledge can not only greatly reduce students' learning time and learning contents, but also reduce teachers' teaching pressure. It will also help students to cultivate an independent learning and exploration habit. In addition, the guidance of videos can help students to understand the texts more deeply and thus improve their learning.

Developing mini-course in line with the key and difficult points of teaching to improve teaching effect

Unlike normal classroom instruction which has large capacity, mini-course aims to fulfill its teaching task in a limited amount of time. Therefore, the teaching contents of it should be carefully

chosen. Mini-course is a kind of miniaturized and targeted teaching model aiming at resolving certain small knowledge points or specific questions. Instead of being simple learning resources, it is a type of academic service, taking

learning resources as a carrier. Different from the traditional single resource type such as teaching examples, teaching courseware, teaching design and teaching reflection, this is a new teaching resource based on the traditional type. For example, there are five groups of gingival lamina proprias in the periodontal tissue along with the direction of collagen fibers, namely the dentogingival group, alveolar gingiva group, circular group, dental periosteum group and transeptal group. There are also five groups of periodontal ligament main fibers in the periodontal tissue: the alveolar group, horizontal group, diagonal group, apical group and interradicular group. The above two points which are the key and difficult points of teaching can be explained together, as a small topic, in the mini-course teaching. This explanation when accompanied by slice map, animation demonstration, comparison tables and classroom test can help students understand the knowledge structure better.

Adding a broadcast section of practical operation into mini-course to strengthen teaching effect

Mini-course can be used repeatedly to review the key and difficult points after class in order to deepen the understanding of oral disease. This pedagogy is one in which students can choose the course content according to their needs, making it possible for the content to meet the needs of students of different level. Considered from this angle, mini-course is a powerful tool to strengthen the interaction between teachers and students. Combining traditional classroom teaching and network, this blended model is of high efficiency, and the application of it to periodontology teaching can greatly increase the effectiveness of college teaching. Mini-course can be used to record the concrete operation procedure of the diagnosis and treatment of periodontal disease to give students an intuitive understanding of the concrete operation methods. Take the subgingival scaling for instance, with the assistance of mini-course, teachers can first ask students to observe the procedure of subgingival scaling in order to help students master the essential points of operation. After the observation, teachers can give some explanation and analysis based on students' specific problems. Teachers also can provide students with mini-course videos after the lecture, aiming at making students get a deeper understanding of the knowledge. In this way, the deficiency of limited practical courses in periodontology teaching process can be made up, and students' practical operation ability can be enhanced.

Taking mini-course as an opportunity to improve teacher's teaching ability

As a new mode of teaching, mini-course teaching is a new challenge, as well as a process of learning and a new way of promoting development for teachers. The mini-course teaching can provide a platform without time and space limit for academic exchanges. In this way, teachers get the chance to communicate

freely with professionals both at home and abroad, which can accelerate their growth and improve their ability. With the development of education technology towards informationization and digitization, as well as the reform of teaching methods and strategy required by modern teaching concept, the mini-course videos produced by teachers should be in accordance with education and teaching rules, the students' present situation and feedback. During this video production process teachers should constantly think about their deficiencies and problems and then find ways to solve it, which is actually a summary of their teaching experience. It will contribute to the teachers' relearning and the improvement of their teaching ability.

Conclusion

At present, the outstanding problems in periodontology teaching directly cause the shortage of professionals in the field of periodontal disease treatment. Therefore, it is extremely essential to have research on periodontology and to reform its teaching method. Mini-course has already been widely applied to stomatology teaching and good results have been achieved. Applying mini-course to periodontology teaching is conducive to the cultivation of high

level talents in periodontal disease diagnosis and treatment. The emergence of mini-course is of great practical significance to students' learning, teachers' teaching practice and professional development.

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An Outline on the Value Chain of Moral Education Curricula of Chinese Institutions of Higher Learning: Trinity of Moral Education, Society and Human Beings

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Abstract: moral education is the one which is committed to the construction of human's value and evolution of the value. Efforts to develop a value project with Chinese characteristics and global influence should be made at present and in the future by Chinese moral education. In the moral education curricula of Chinese universities and colleges, *Introduction to the Principle of Marxism* is the general outline of soul, mind and methodology. The *Outline of Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics* is the focus of backbone, trunk as well as the ideological and political theory. While the *Outline of Modern Chinese History and Ideological and Moral Cultivation and Legal Basis* are good assistants to other curricula, just as left and right arms (the former emphasizing on the summary of history and the latter dealing with reality). The *Situation and Policy* and Contemporary World Economy and Politics are the two driving wheels at present and in the future. All these courses share with the same goal and core, but vary in emphases and codes of values. Connection to these six courses is to right construct a system and value chain for the moral education of Chinese institutions of higher learning with characteristics of multiple levels, factors and functions. As one of two compulsory and three selective curricula, these moral education courses have made progress in research value. The moral education curriculum and social progress and human development have come to be a trinity during the process of their interaction.

Key words: Moral education curriculum of Chinese institutions of higher learning, value emphases, value chain, trinity

Introduction

Moral education is devoted to the shaping of human souls and the evolutionary of value. China has long focused on the cultivation of moral education. The contemporary and future of Chinese moral education should endeavor to build a moral education value project which has Chinese characteristics and global influence. The author believes that the moral education curriculum system in Chinese universities and colleges should make it a priority to the winning of high quality of humankind and society through the essence of the value of curricula.

Every moral education course in Chinese universities and colleges shares the same missions and cores but with its own focus and value essence. The moral education curriculum system is the actual value chain bearing special tasks, and has a closer connection with the mainstream of Chinese core value and even the human right way. It links with the development of human beings and social progress, facilitating the further advance of the trinity of education, human and society.

The value emphases and essences of moral education curriculum in Chinese institutions of higher learning

Two basic contents should be included in the increasingly perfect spiritual world of each Chinese college student that the one is the individual expertise and professional essences and the other is the all-pervasive common characteristics, the value conception and essence. The former copes with the social division of labor and tangible creation. The latter is related to the right common direction and more universal social consensus. The moral education curricula in universities and colleges are responsible for the second basic content.

The curriculum of Introduction to the Principle of Marxism (hereafter referred to the Principles). It is reasonably believed that the *Principles* is the *general*, methods and fundamental guiding ideology for systems of all moral education courses in Chinese universities and colleges and that is the logical starting point and ideology basis for the all the rest of Chinese moral education courses or even the whole Chinese political mainstream. It is considered as the expression of the most *general* rule of the element theory to nature, human society and human spiritual world, and is also the most basic principle hidden behind the professional learning and specific research as it has the most universal, scientific and stable properties. Its basic *principles*, composed of the most general position, viewpoint as well as method, are the trinity of scientific world outlook, methodology and value. The originality of the

Fund: It is funded by the special ideological and politics project of human social sciences of Educational Commission of Hubei Province (No. 14G151), teaching research of Changjiang University (No. JY2013002) and human social sciences of Changjiang University (No. JY2013CSZ009).

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Principles owes much to the prospective study and innovative practice of Marx and Engels in German, France and England, the highland of thoughts. It is still essential for the current and future Chinese people and Chinese society (actually internationally involved) to tract down this universal and profound basic wisdom when finding the most fundamental answer. This set of *principles* is the general of all methodologies of objective and initiative researches.

It is the *Principles* that defines the precise explanations and corresponding basic value conceptions to the objectivity, practice, contradiction, development, liberation and humanity. They are the most cherished sources which are created by the specific value of human life and so much so that are a series of excellent political ideologies. As a result, they are the value source of all the rest of other moral education courses as well. There are, absolutely, good reasons to believe that the *Principles*, especially to the philosophical theory of materialist dialectics, is the widow to the maximum principle and the most general truth of the bright future of human life.

The General of Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics (hereafter referred to the General). The General is the subject and dominate moral education course for current undergraduate and college students in China. This theory system has distinctive political ideology and a rather strong sense of social reality and is the right reflection of the reality of modern and future Chinese political ideology. It is the typical representative of moral education course in Chinese institutions of high learning, too, as it is and will be the guidance of political ideology for Chinese social reform.

This curriculum, as a matter of fact, is the Sinicization of Marxism or the general of Marxism in Chinese style. The *General*, the theoretical crystal of successful combination of the most universal philosophy of Marxism and a series of major practical experience, has conveyed the basic content of Chinese current mainstream ideology, theoretical ideology and political ideology. Its content is on the basis of the wisdom of excellent political party of Chinese nation and its common people, the summery of as much of expansive and profound Chinese national condition as possible, and represents the fundamental interests of the most majority of Chinese people. Therefore, it shoulders the historical mission of guiding the Chinese society and economy to be developed in a sustainable and healthy way. It, thus, requires the Chinese youth to positively take an initiative and systematically focus on the study of this ideology which is considered as the right reflection and guidance for the development of Chinese society and society.

It is apparently that the Outline course has covered various vital value conceptions, including supremacy of people, the rise of China, economic prosperity, civilization and democracy, reform and innovation and harmonious development.

The Outline of Modern Chinese History course (hereafter referred to the Outline). It is reasonably to be assumed that the

Outline mainly interprets the blood and fresh relationship between “Chinese case” and “Chinese argument” since modern times (it is also related to the relationship between history and theory from the cause of modern times).

The *Outline* also can be considered as a composition of the *General* mentioned above in another sense. The pioneers, early events and thoughts in the *Outline* were come to be earlier than those in the *General*. Therefore, the *Outline* and *General* have the same root and blood and also are carried in the similar manner. They share a period of symbiosis and superposition with no sense of broken chronology. Moreover, the *General* tend to leapfrog---the new thoughts and systems standing out from the outline of history. From the perspective of another function, the former is the corroboration of the latter. The history and theory in the outline are neck and neck. While the *General* focuses on the fundamental theories and firmly has proved a series of truths of “China’s historic decisions” and “Chinese argument” by using adequate Chinese arguments. The *Outline* has laid a foundation for the *General* in characters and events, experience and lessons as well as thoughts and theories. The perfect pair of the *Outline* and *General* is enough to touch the soul of college students in China.

It is unavoidable that such directional options as scientific ideas and means, firm political position, brilliant party leadership, right social development path, are included in the major “Chinese decisions” verified based on the historical practice. Besides, it is the *Outline* that refines and reinforced the nation-wide value memory, like the democracy, national wealth, freedom and strenuous effort and revolution.

Ideological and Moral Cultivation and Legal Basis course (hereafter referred to the Basis). It, also called the *Basis* of Morality and Legislation, aims to reinforcing the fundamental ethical awareness and moral practice of Chinese citizen and strengthening the basic spirit of law and cooperation behaviors. In the *Basis*, the laws and regulations mainly refer to the firm and compulsory social codes. While the moral ethics defined in the basis are primarily the soft and leading standards of interpersonal relationship. The mainstream of morality and law basis in China has echoed with the value requirements of the *Principles* and *General* and linked with the tradition and the actual reasonable standards. It effectively deals with the two levels and fields of social relationship existed since ancient times by the means of modern curriculum. Therefore, it is the unity of inner spirit requirements and the external behavioral demonstration.

The morality and legislation in the *Basis* course character softness and toughness as well as implication and explication, which is beneficial to the Youth to improve and temper themselves mentally so as to make achievements in “learning both sound in theory and practice”. The due codes and disciplines allow the behaviors to be more reasonable, the development more prudent and the freedom safer. The heaven (space over the head), earth (the foundation of the water, wood, fire, earth and mental beneath the

earth surface) and human beings (the national and international situations in the middle) and their relationships are examined in extensive and profound ethics and morality and legislation and tolerance. A healthy society and sound character require the combination of toughness and softness, comfort and enforcement as well as the spirit and form.

As a result, friendliness, honest, democracy and legislation have sound foundations and also indicate good results. Chinese core values has been reinforced and displayed in the *Basis* course.

The Situation and Policy curriculum. The *Situation and policy* is very distinctive compared with other moral education courses. It is a monographic curriculum of ideology and politics updated every semester and academic year, which concentrates on tracing properly the current Chinese economic and social situation (especially to the situation of the current year). It is a better blend of moral education theory and Chinese reality and the unity of different specialized learning and a common prospect of social background under a background of colleges and universities.

The author holds the belief that this course can be considered as the continuous explorations and studies of the corresponding relationship between the current major objective situation and major policies and strategies. It is the application and display of epistemology of the *Principles* and philosophy of the *General* mentioned above, a new arena for displaying contemporary world, especially to the current China, a place of vital practical and theoretical innovations of today's Chinese people, an important space for the new standards and thoughts, the current continuation and the latest expansion on the basis of modern and contemporary classical theories and practical experiences and the important attempt and training for grasping the pulse of times.

Launching a rolling campaign to study the situation and politics contributes to strengthening the sense of times and space, profession and the spirit of realism. It also is helpful to constantly enhance the enthusiasm of college students to the combination of theory and reality, to wisely grow up and to be mature and to the cultivation of the down-to-earth attitude and the growth of talents.

The Contemporary World Economy and Politics curriculum. It, as a selective course, targets for educating students to face with the contemporary and future world in a more proper manner. It is not only the application of theories but the preparation of mentality and moral education. This course focuses on the inquiry and study of the current world economy and national politics under the guidance of Marxism and it has a distinctive Chinese characteristics. It is the selective supplement of moral education curriculum, a compulsory course, and the conscious application of college students when in a critical or combat-ready state.

This course certainly reinforces the voluntary study and appreciation of value conceptions and methodologies, including objective spirit, pragmatic attitude, open posture, macro-strategies and game-theory of contradiction. All these, which are of high value to the youth in Chinese institutions of higher learning, are conducive

to cultivate a wide-minded attitude, to focus on the reality and to look into the future. Should the undergraduate consciously select and intensively study this course, they would be very likely to study the future politics and science and culture, resulting in a bright future.

The trinity from emphasizing on the curriculum value to on the value chain of curriculum system and then to on the curriculum, society and human beings

Nowadays, finding out the value emphasis and essence of each moral education course of Chinese colleges and universities is of great significance in many ways. It helps to grasp the key points, difficult problems and hot words of every moral education course. It also is conducive to the accurate position of every course and the comprehensive coordination of relationships between courses and the further improvement of teaching and educating ecology of moral education. (In colleges and universities, as a matter of fact, it is quite common that the core value and function of each curriculum cannot be defined and well controlled due to various reasons, leading to a further side effect. For instance, as the low level of mutual repeat and collective omission of various courses coexist in the process of teaching and educating curriculum systems, different choices and conflicting ideas are quite occasional and the moral education and specialized education are thrown off their balance.... As a result, the emphasis on the scientific research to and the full realization of each moral education curriculum are of great fundamental value, which is present by itself).

Linking the six above moral education courses of college and undergraduate students is right to form an educational system and value chain with multilevel and multi-factors and multi-function characteristics. Among them, the *Principles* is the *General* of soul, body and methodology, the *General* the focus of trunk, main body and ideological and political theory, and the *Outline* and the *Foundation* the good assistance to other moral education courses (the former emphasizing on the summary of history and the latter focusing on prudently coping with the reality) and the *Situation and Policy* and the *Contemporary World Economy and Politics* are the driving double wheels for the young college students. The value elements in the above curricula are differentiated but also intertwined, resulting in a value frame related to system, human beings and society.

The following five moral education curricula for graduate students (including two compulsory and three selective courses for graduate and Ph.D students) inevitably include two kinds of progressive extensive specialized researches. The one concentrates on the study of contemporary Chinese reform and development. The other focuses on the research of contemporary world economy, politics and culture. Two types of scientific methodologies which are available to be selected are the one aiming at nature, natural science and engineering technology and the other targeting for the society, social science and social engineering projects. There is another comprehensive classical collection of humanities and social science,

the perfect example for criticism, formation, reform and breakthrough. The potential values in the above collection can be developed and achieved from the following perspectives, including humanity and the main body of China, the first priority of practice and theoretical interest, humanistic care and scientific spirit, historical mission and cutting-edge innovation and breakthrough in a specialized field and all-around emancipation.

It can be seen from the moral education system of Chinese institution of higher learning that it is not only a teaching educational system from abstraction to concrete, from foundation to application, from clarification of the objective reality of history to the future but the one developing from the curriculum teaching education to a functional system and value chain where human beings are healthy and effectively progressive and the society is all-round developed.

The issues of the value emphasis and value chain of moral education curricula in Chinese institution of higher learning seem to be a problem of abstract theory. However, it in fact is a quite vital one related to society and humankind. The moral education curricula in colleges and universities serve for the increasing optimization of social organization and the process of its optimization. The moral and social progresses, after all, serve for the objective needs of the positive and prudent development of human beings---the actual requirement of trinity of curriculum, society and man. The trinity, the value linkage of curriculum system, the construction of hierarchy of mansion of human's behavior and thought, should be mutual connected and interacted as well as dialectally united.

Although the realization from core conceptions and theoretical

morphology of value world to the concrete but beautiful value forms should be dialectically advanced as the value project is the lasting, complicated systematical one where is full of contradiction, as long as education, society and man make a joint effort to share their values and unite their theory and practice, the complete success and trinity of education, society and man will strive to be fulfilled every day.

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Quest for Quality Assurance in Teacher Education in India

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Abstract: Teachers are born not made is the tug of war between whether teachers need any training or they are taken for granted as born teachers. In the modern context the system of teacher training in India is now over one and a half century old. Thorough grounding in the subject is required to help any teacher go smooth in the teaching task. There was indeed, a systematic tug of war between the French and the German ideologies on teacher education, leading to a kind of confusion of choice from these models or a combination thereof as part of the colonial psyche to be adopted by the English rulers as they landed in India. The gap between the training college and the schools is yet another constraint that hampers quality of teacher education. During, 1882, the period of Hunter commission a university in each of the three presidencies at Madras, Calcutta and Bombay were established to take care of higher education in India, including teacher training at degree level. The secondary education commission (1952-53) stressing on the need for widening the scope of practical training, suggested, "it should consist not only practice in teaching, observation and criticism of lessons, but should include such subjects as construction and administration of scholastic test, conducting library periods etc". On May 21, 1973 the govt of India established the National Council for Teacher Education (non-statutory) as an advisory body. The present paper focused on the quality of teacher education during pre-independence and post independence and also the recommendations of different commissions regarding it. It also focused on how, the quality of teacher education can be assured and maintained in its modern context.

Key words: Quality assurance, teacher education, NCTE, teacher, India

'Teachers are Born, not Made'

The system of teacher training in India in the modern context is now over one and a half century old. It has seen many ups and downs during this long journey. The initial bone of contention that bothered it for quite a while, and is still quite contentious for many a people, is the tug of war between whether teachers need any training at all or they are to be taken for granted as born teachers. It has been an age-old claim and belief of a large section of the educated elite that 'teachers are born, not made'. What is really required is a thorough grounding in the subject to help any teacher go smooth in his teaching task.

This is perhaps universally true in the case of higher education even today, as despite a small time orientation in burning educational issues of the day, the university faculty has never been subjected to any formal training in pedagogy whatsoever to make them pedagogically competent and effective faculty teachers. The examples seem to have been taken to be true in case of school teachers for quite a long time by the elite in England, contrary to what the French and the Germans tended to believe. There was, indeed, a systemic tug of war between the French and the German ideologies on teacher education, leading to a kind of confusion of choice from these models or a combination thereof as part of the colonial psyche to be adopted by the English rulers as they landed in India.

Dichotomy of Ideologies– Theory Vs Practice

Systemic tug of war between the French and the German ideologies on teacher education as models of choice to emulate or a

combination of both, as part of the colonial psyche of the British Empire vis-à-vis the system they adored the most then, dominated the scenario in search for quality education. In England, "while one school believed in the French ideology, the other swore by the German"¹. "The French model aimed at 'giving the pupil thorough instruction much more in the subject which he is intended to teach, and in those allied subjects which will enable him to teach them with greater fullness, insight and power, than in the methods of teaching them, and the professional art of the teacher.' In contrast....., 'the German practice laid a great emphasis on the study of the principles and practice of teaching'."²

This content versus methodology tussle, as part of teacher training, and its hangover since then, has continued ever stronger to defy any solution whatsoever till date even though it attracted the attention of the Indian Education Commission, 1882, for the first time, and of various committees and commissions thereafter. Its other variant, and indeed, the bigger one, is the gap between theory and practice that pesters teacher training a great deal and in every aspect.

Dichotomy of Interests – Education Vs Trade

The then scenario, that is, the scenario at the advent of the British rule seems to have added further confusion as their position by themselves was quite poor and miserable as the following observations would tend to testify:

(a)"The facts behind the British system are based on inaccurate and obscure facts. For example, we do not teach that they had no secular education in England and when they started ruling us they

were a trading company and not a compact country or a nation. India too was a politically non-cohesive country and was represented by multiple rulers with mutually unfriendly and even hostile people. This means that the British had nothing to offer and had only one goal to achieve – to earn money and not to invest or waste. They were unsure of the continuity of their trade not to talk of their rule in India. In an unsure situation no one thinks of long term goals. They left education to the Natives to take care of and adopted a policy of supporting only those parts and individuals who wanted to teach English language and rudimentary Mathematics for obvious commercial reasons. In fact, they were curious to learn the secret from us in India as to how could we compete with their machines without having those machines ourselves. England and Wales had no developed system of education and no experience of teaching others. Their contact with us was as a trading company from an educationally backward part of the world which itself wanted to learn a lot or many things from us."³

(b)"The East India Company— a conglomerate of pirates turned businessmen had not come to India to either squander the wealth created nor to invest any money without any long range policy for earning profits. Instead they had an eye on making quick bucks. They had no inclination to lose money. No business people would ever invest in an unsure market. This shows why the Company never became interested in education. This remained true even after 1857, when they became rulers and at least as policy makers, they never showed any signs of being or becoming native Indians. We know education means investment for long term goals. The company, therefore, could never feel interested in this money-losing venture. Also the British, even when they were trying to govern India were in no position to offer anything. They were a highly backward, poor people and survived on child labor. It has been noted that contribution to Oxbridge universities too was negligible to both basic sciences and the enlightenment. England was in the process of gradually trying to become a nation because at that time it consisted of two separate countries – England and Scotland, with two separate developed histories and a colonial past. The court language of the English Court was French and most of their soldiers too were non-English. For every thing they were dependent on Europe and Europeans. These factors should be taken cognizance of while writing or teaching about the English rule."⁴

(c)"The first document on education from Company's side is Wood's Dispatch of 1854. This is what gives us an idea of what and how a business company which has invested in trade for profit thinks of education. Education is an investment. A company could invest if it knew that it could remain in business for a long time and earn on their investment. Look at the trade during our days. Indians invest and create business climate by investing abroad. It makes sense to adopt measure to increase returns and to reduce costs in investment and not the exact opposite of this simple business policy. While this explains why they were reluctant to invest money in education per se but they showed unusual interest in teaching English language and

manners to the natives. They wanted the natives to learn English language for hiring all kinds of personnel locally. This would encourage natives to do their jobs cheaply.

Teacher training in its modern form was introduced by the missionaries because they wanted to raise a crop of native missionaries. The first principles of teacher training/education were given by missionaries who had a religious mission and had nothing to do either with business or governance. This explains why Norwegian Missionaries in 1793 who in order to save Indian souls from perdition started a program of teacher training and not the British. After all converting people is a greater mission than governance or business."⁵

(d)"To expect the British to have given us teacher training / education is thus simply a joke. The East India Company was unwilling to invest money because they were primarily traders; secondly, they were unsure about the returns from their investments; and thirdly, they had no idea of staying put here. Under the circumstances an unsure Company could not show any interest in investment in either education or teacher training institutions."⁶

Quality Parameters Early Attempts

A- Pre-Independence

The gap between the training college and the schools is yet another constraint that hampers quality of teacher education. Sensing such concerns, the 1882 Commission, popularly known as Hunter Commission, recommended that "an examination in the principles and practice of teaching should be instituted, the success in which should hereafter be made a condition of permanent employment as a teacher in a secondary school"⁷. It was during this period that a university in each of the three Presidencies at Madras, Calcutta and Bombay were established to take care of higher education in India, including teacher training at degree level as well, besides other disciplines, and as such by the turn of the century, the urgency to provide professional training to secondary school teachers was strongly felt resulting in evolving the Govt. of India Resolution on Education Policy, 1904, clearly stating its intention to strengthen the training of teachers to help them become capable teachers, as would be obvious from the resolutions it adopted and recommended thus:

"if the teaching in secondary schools is to be raised to a higher level – if the pupils are to be cured of their tendency to rely upon learning notes and textbooks by heart, if, in a word, European knowledge is to be diffused by the methods proper to it, then it is most necessary that the teachers should themselves be trained in the art of teaching".⁸

"For graduates, the training course should be one-year university course, leading to a university degree or diploma. The course should be chiefly directed towards imparting to them a knowledge of the principles which underlie the act of teaching and some degree of technical skill in the practice of art. For others, it should be a two-year course, embracing the extension, consolidation and revision of their general studies to make them capable teacher".⁹

Other salient features of the Policy Resolution, 1904, also highlighted many a crucial factor for quality of teacher education and schooling. It sought to ensure "that the student on leaving the college and entering upon his career as a teacher may not neglect to practise the methods which he has been taught".¹⁰ This continues to be a moot point till today in that there has always been a serious charge on teacher education that its trainees on completion of their training leave all the methods of teaching learnt and practised during training as a legacy to the training college itself and walk out empty handed in matters of methods and fall to the routine of the school where they join as teachers. This is a matter too deep for investigation which has belied all the while all interventions and innovations to stick to the methods and methodologies in routine vogue in the school.

Among other vital suggestions, the Policy Resolution, 1904, did suggest that the training college should be properly equipped and fully furnished with a library, a museum and a practicing school attached to it and under its control to regulate teaching practice with teaching pedagogy, on the one hand, and with theory, on the other. It also made it quite important to provide for regular in-service programmes to update teachers' knowledge and skills, through arranging demonstration and criticism lessons by and for the benefit of teachers in service as well as for would-be teachers under training.

The experiences gained on implementation of the 1882 Commission recommendations and the 1904 Policy Resolution in the Presidency Colleges and others, over the years, prompted the back-up of another Policy Resolution of 1913 to establish the norms and standards of teacher education as also to initiate a system of visiting teachers from one training college to another to share free interchange of ideas and experimentation to push up the quality and quantum of teachers' output, suggesting, among others, an intensive "study of:

- (i) the best size of the practicing school and the relation between it and the training college;
- (ii) the nature of, and the most suitable methods of procedure in practical work;
- (iii) the relative study of methodology and psychological study;
- (iv) the best treatment of educational history; and
- (v) the extent to which it is desirable to include courses in the subject-matter in the scheme of training, and similar other allied problems".¹¹

It also suggested the need to do manpower planning to meet the minimum standard that "the training of teachers to be trained in each year should not be less than the number of new teachers whom it is necessary to provide in order to take the place of those who have died or in order to meet the demands created by the extension of education".¹²

The importance of teacher training, the host of its problems and expectations, and for that matter, of education as a subject of study soon attracted the attention of the 1917 Calcutta University Commission, popularly known as Sadler Commission, which made a

number of revolutionary observations and recommendations to improve the status of teacher training in the country. First and foremost, it suggested the creation of a Department of Education in each University, with a Professor of Education as its head; inclusion of education as a subject at Intermediate, Graduation and Master's levels; setting up of an experimental high school attached to the training college for experimentation, innovation and teaching methods over and above a practicing school for regular practice teaching; and acquainting teacher trainees with other-subject-students like those working on problems in psychology, economics, history and in various branches of science to orient themselves in inter-disciplinary learning.

Interestingly, it was made amply clear almost over a hundred and fifty years ago, that "The theory of teaching should be closely associated with its practice and for this purpose good practicing schools should be attached to each college under the control of the same authority. The practicing schools should be fully equipped with well-trained teachers and students should see the best examples of teaching and should teach under capable supervision. It is desirable that training college should be furnished with a good library and records of the school work of the province. Every possible care should be taken to maintain a connection between the training college and the school so that student may not neglect to practise the methods which he has been taught and that he is not forced to follow methods of untrained teachers".¹³

B- Post-Independence

India's tryst with destiny of education and teacher education started as though de novo, first in the late 1930s with the intervention of the concept of Basic Education (1937) and later, on with diversified Multipurpose Education (1952-53) that tended to refurbish the concept, purpose and scope of teachers' training and its very structure to meet the needs and aspirations of the Indian milieu and the masses, but for the vested interests who let down these experiments on one count or the other, to let the stalemate continue as ever about what is really expected of teachers' training in this period of transition and change, all resulting in a fiasco, a kind of confusion till such time when the Indian Education Commission (1964-66), popularly known as Kothari Commission, made its debut and commitment to reshape the entire superstructure to serve the cause of education and teacher education in a comprehensive manner.

The first post-independence Indian University Education Commission (1948-49), popularly known as Radhakrishnan Commission, did not find "much of a variation between the courses prescribed in the different institutions",¹⁴ except that in practical work connected with B.T./L.T./B.Ed., the omnibus courses in teachers' training at secondary level but universally acceptable for appointment in educational institutes, training colleges and schools of all kinds and grades, in that "some universities insisted on 60 supervised lessons, others did not insist on more than ten".¹⁵

The Secondary Education Commission (1952-53), popularly

known as Mudaliar Commission, stressing on the need for widening the scope of practical training, suggested, "it should consist not only of practice in teaching, observation, demonstration and criticism of lessons, but should include such subjects as construction and administration of scholastic tests, organization of supervised study and students' societies, conducting library periods and maintenance of cumulative records".¹⁶ A few earlier and subsequent high power committees had also found it to be lacking in different contexts, seeing room for its remodeling and restructuring.

The Sargent Report (1949) had observed, "The type of training given under this course fails to keep pace with modern ideas in education and there is insufficient coordination between the theory and practice".¹⁷ In the same vein, the Government of India Education Adviser had advised the Model Syllabus Committee, set up in 1956, to focus on factors such as (1) "Whatever knowledge is imparted to the trainees should have a direct bearing on the day-to-day school problems"¹⁸ and (2) "it should be the endeavour of every teacher in a training college to link up his theoretical work with the new socio-economic forces that are operative in the national life. Unless that is done, the training will lose much of its significance and the trainee will find it difficult to develop a complete and coherent picture of life".¹⁹

The birth of apex institutions like the University Grant Commission (UGC), the Central Institute of Education, the National Council of Education Research and Training (NCERT) and its National Institute of Education comprising various faculties, including Teacher Education, among others, and the Regional Colleges of Education to address the cause of teacher education, in particular, and the setting up of the Indian Education Commission (1964-66) clearly evinced the shape of things to come in terms of quality assurance in education and teacher education as perceived until the mid-nineteen sixties.

It may be interesting to observe that while the Commission (1964-66) digested all that appeared vital for quality teacher training in the 150 years of feedback spadework viewed to have been done in the past to shape and sharpen its recommendations, on the one hand, as highlighted in the preceding pages and to present, on the other, a momentous dose of reforms in its magnum-opus report, such that all future doses, if any, would simply appear as its footnotes. The concepts of comprehensive colleges of education, internship training, hubs of institutional complexes, bridging the theory-practice gap, the neighbourhood community institutions and a host of other crucial inputs as quality parameters, for example, are well-nigh its lasting contributions to the cause of teacher training, majority of which have, however, remained locked, more or less, in the printed covers only rather than their being implemented earnestly to safeguard only the vested interests.

The Second National Survey of Secondary Teacher Education in India conducted by the Department of Teacher Education in the NCERT, observed:

"Facilities for follow up work or contact with the training

college of its alumni and of the teachers in its area are woefully inadequate. In other words, training colleges have failed to build up the educational leadership for themselves".²⁰

"Very little work has been done in this country in determining what makes a good and effective classroom teacher".²¹

"In the last few years, one more responsibility has been added to teacher education institutions in the country. Besides providing pre-service education to teachers, it is also expected of them to make provision for in-service education of teachers by organizing extension programme".²²

Similarly, the Third National Survey of Secondary Teacher Education in India conducted by the Department of Teacher Education in the NCERT identified the whole gamut of problems, gaps and concerns that deserved immediate attention to pave way for quality teacher education and to give, in turn, a kind of a blueprint to move ahead in that direction. So also, for elementary teacher education as well, as reported in the NCERT Annual Reports of that period, till the coming up of the NCTE (non-statutory) in early seventies.

Establishment of NCTE (non-statutory)

Bogged down by the tug of war that existed between administrators and educators as well as between other antagonists against and protagonists in favour of the existence of Deptt. of Teacher Education in NCERT as an exclusive institution to promote the cause and quality of teacher education, particularly in the face of review of its work and contribution from time to time, in the very first decade of its establishment, and other factors responsible for war of ideological belief that 'teachers are born, not made' and that the standards of teacher training were showing diminishing returns qualitatively, perhaps due to mushrooming output of surplus teachers through correspondence courses, on the one hand, and acute shortage of qualified teachers in certain subjects like English, Science, Mathematics etc., on the other, as reported in various the-then news items, resulting in serious imbalance between demand and supply and similar other issues, the Govt. of India established the National Council for Teacher Education (non-statutory) on May 21, 1973, as an advisory body, with its Secretariat in the Department of Teacher Education (NCERT) with the express purpose of ushering in a new era of proper growth and development of teacher education in the country. Its functions included:

1."To advise the Govt. of India on all matters concerning teacher education, including pre-service and in-service teacher training, evaluation of the curricula for teacher education and periodical review of the progress in revising the curricula.

2.To advise the State Government on any matter referred to the Council by them;

3.To review the progress of plan schemes, both central and state, concerning teacher training;

4.To advise the Govt. on ensuring adequate standards in teacher education; and

5. Any other matter entrusted to the Council by the Govt. of India".²³

Focusing particular emphasis on pre-school and elementary education, specialized B.Ed. and M.Ed. courses for these sections were envisaged, developed and recommended to be initiated in the States and Universities. "The NCTE has also developed a programme of pre-school teacher education for preparing teachers for teaching children in the age-group 3-8 years. B.Ed. (early childhood) course has also been developed for preparing teacher educators for pre-school teacher training institutions and supervisors of pre-school education".²⁴ The process of preparing handbooks and textbooks for student teachers of pre-school teacher training institutions was also initiated, besides evolving "guidelines for the recognition of pre-school teacher training institutions and also to identify selected elements of pre-school teacher training for integration with the existing primary teacher education curriculum".²⁵

The ninth meeting of the General Body of the Council held on 21-3-1987, among other things, approved and recommended the Draft Code of Professional Ethics for Teachers, reiterated that the correspondence course for pre-service teacher education, both at elementary and secondary levels, should be discontinued immediately"²⁶ and suggested further, "for preparing a scheme for a four-year teacher education programme".²⁷ A host of extremely cogent opinions were expressed in the meanwhile by its various sub-committees in the light of the recommendations of the National Policy on Education, 1986, to refurbish teacher education that considered pre-service and in-service teacher education as a continuous as well as a lifelong process for the teachers and teacher educators to be up-to-date academically as also professionally.

The National Policy on Education, 1986, called for an over-hauling of Teacher Education at all levels, on the one hand, and qualitative improvement of school education, on the other. The National Curriculum Framework for Elementary and Secondary stages of education had been worked out by the NCERT, keeping in view the major thrusts of the NPE. These developments and the Centrally Sponsored Scheme on Teacher Education, specially the setting up of the District Institutes of Education and Training (DIETs) and strengthening of Secondary Colleges of Teacher Education and upgrading some of them as Institutes of Advanced Studies in Education reiterated the need for taking a fresh look at the professional preparation of teachers.

Establishment of NCTE (statutory)

There seems to have been also a major logistical gap, a kind of vacuum, a blindfold transition from NCTE as non-statutory to NCTE as a Statutory body with no or only a little carry over brinkmanship between them. Both these institutions appear to have started afresh from square one, from the very scratch, without caring much about what had already gone into by way of contribution whatsoever made by their predecessor thought processes and institutions. Their

initiatives seem to have been apparently taken by fits and starts in tune perhaps with the whims and fads of the contemporary powers that be, irrespective of the mandate before them. Lack of continuity and clarity of vision coupled with a kind of realization that this Body (non-statutory) has had simply an advisory role to play without any teeth of its own to implement its decision that led as though to oversimplification of its efforts to do any serious task to articulate or put in place its full force as a non-statutory institution in first instance and followed later by NCTE (statutory) by too loose a rope to arrest wholesale mushrooming of ill-conceived teacher training institutions of all kinds over the last twenty years or so and in all parts of the country, so much so that the very purpose of its existence as a statutory body too is feared to be at stake, despite all its rules and regulations, norms and standards, and its mandate, leading to an unprecedented commercialization of teacher education beyond all measures.

The malaise of Teacher Education as it suffers from, today, is reflected in the latest document of the NCTE titled TEACHER EDUCATION: Reflections Towards Policy Formulation, 2009, thus: "There is a widespread perception among the fraternity of teacher educators in the country that teacher education entered the era of mediocrity some thirty years back and has not been able to redeem the situation in spite of sporadic efforts made both by government and non-governmental agencies from time to time. Proliferation of small size teacher education institutions, non-availability of the required infrastructural and instructional facilities in a majority of them, non-availability of properly qualified teacher educators in adequate number, lack of professionalism in the organization of various teacher education programmes, neglect of curriculum areas in relation to teacher preparation and absence of quality assurance measures are often identified as some of the reasons responsible for the downfall".²⁸

This clipping containing sweeping remarks on the teacher education scenario in and around the 1980s makes serious aspersions on the then status of teacher education, obviating particularly the re-construction tasks performed hithertofore by various institutions like the Department of Teacher Education (NCERT) ever since its inception in 1963-64; by the Regional Colleges of Education (NCERT) since their inception as centres of excellence in teacher education in 1963-64; by various other departments, and units of the National Institute of Education (NCERT) to collaborate in teacher education uplift and to promote quality of schooling at all levels ever since the establishment of NCERT in 1961 as a nodal national and global level Apex institution; by a host of strongly established university departments / faculties of education around the country; and, in special, by the NCTE (non-statutory) which had come into existence in 1973.

All these institutions did not draw a blank from their efforts to rejuvenate teacher education in their own respective way over the years, and yet the NCTE, both non-statutory as well as statutory, preferred to overlook their contribution and to start afresh from 'O'

level, focusing its eye in isolation on the stark elements of the mandate that it stood to serve. The real tragic flaw lied indeed in its own perception as an exclusive institution with absolute powers within the framework of its mandate, the rules and regulations that it has framed and the norms and standards worked out for governance over teacher education institutions and their programmes to seek and establish quality improvement in teacher education at all levels throughout the country.

The NCTE Mandate

The National Council for Teacher Education Act, 1993, No.73 of 1993, that received the assent of the President of India on 29th December, 1993, is “An Act to provide for the establishment of a National Council for Teacher Education with a view to achieving planned and co-ordinated development of the teacher education system throughout the country, the regulation and proper maintenance of norms and standards in the teacher education system and for the matters connected therewith”.²⁹

The NCTE Functions

The NCTE set stipulated the functions of the council thus: “It shall be the duty of the Council to take all such steps as it may think fit for ensuring planned and co-ordinated development of teacher education and for the determination and maintenance of standards for teacher education and for the purposes of performing its functions under this Act, the Council may-

- (a) Undertake surveys and studies relating to various aspects of teacher education and publish the results thereof;
- (b) Make recommendations to the Central and State Governments, Universities, University Grants Commission and recognized institutions in the matter of preparation of suitable plans and programmes in the field of teacher education;
- (c) Co-ordinate and monitor teacher education and its development in the country;
- (d) Lay down guidelines in respect of minimum qualifications for a person to be employed as a teacher in schools or in recognized institutions;
- (e) Lay down norms for any specified category of courses or trainings in teacher education including the minimum eligibility criteria for admission thereof, and the method of selection of candidates, duration of the course, course contents and mode of curriculum;
- (f) Lay down guidelines for compliance by recognized institutions, for starting new courses or training and for providing physical and instructional facilities, staffing pattern and staff qualifications.
- (g) Lay down standards in respect of examinations leading to

teacher education qualifications, criteria for admission to such examinations and schemes of courses or trainings;

- (h) Lay down guidelines regarding tuition fees and other fees chargeable by recognized institutions;
- (i) Promote and conduct innovation and research in various areas of teacher education and disseminate the results thereof;
- (j) Examine and review periodically the implementation of the norms, guidelines and standards laid down by the council, and to suitably advise the recognized institutions;
- (k) Evolve suitable performance appraisal systems, norms and mechanisms for enforcing accountability on recognized institutions;
- (l) Formulate schemes for various levels of teacher education and identify recognized institutions and set up new institutions for teacher development programmes;
- (m) Take all necessary steps to prevent commercialization of teacher education; and
- (n) Perform such other functions as may be entrusted to it by the Central Government.”³⁰

Current Scenario

Soon after the NCTE started functioning as a statutory body, it initiated a stringent step to stop, control and regulate, on top priority, the B.Ed. correspondence courses as in operation in Annamalai University; M.D.U., Rohtak; and at other places since they were producing thousands of B.Ed. teachers, year after year. The NCTE did succeed in temporarily arresting the unplanned growth of teacher training (correspondence) and imposed restrictions, limiting admission of only 500 students from within the respective University jurisdiction, unlike the practice in vogue till then of admitting any number of students from anywhere from the length and breadth of the country and abroad.

The NCTE, as an apex institution, has framed a set of norms and standards as well as rules and regulations as though to promote quality of teacher education at all levels, over the years, and put them on its Website to create general awareness and bring transparency in the system. It is, however, not clear whether the norms and standards framed thus far have had any bearing on quality assurance in Teacher Education as most of them seem to address only the physical, infrastructural and instructional dimensions of teacher education institutions rather than paying any serious attention to the academic, professional and other special components that go to serve as realistically tangible parameters for quality teacher education per se.

The visible consequence of the current scenario in the country today is the mushroom growth of ill-equipped teacher education institutions turning out thousands of ill-prepared teachers from institutions that simply fulfilled the bare infrastructural norms

required to be met. In that quality assurance has remained as big a question as ever! That is why fault-finding fingers have been quite in the air about the functioning of NCTE and gaps in its norms and regulations.

For instance, 'University News' Vol. 45, No. 33 raised a host of doubts on the working of NCTE and pitfalls in its norms and standards so much so that talks about repealing of the NCTE Act, 1993, were also in the air. Obviously, it would seem pertinent to examine the NCTE's regulatory functioning empirically vis-a-vis the deep-seated quality assurance parameters inherently expected of teacher education programmes in the country over the last nearly forty years of its existence—20 years as non-statutory and almost equally so as statutory by now.

Summary

Quality Assurance in the Teacher Education in India is the burning educational issue of the day. The system of teacher training is now a century old in its another context. Teachers are born, not made is an age-old claim. There is the tug of war between whether teacher's need any training or they are to taken for granted as born teachers. Teacher training in its modern form was introduced by the missionaries because they wanted to raise a crop of nature missionaries. The gap between the training colleges and the schools is another constraint that hampers quality of teacher education. During, 1882, the Hunter commission recommended that "an examination in the principles and practice of teaching should be instituted, the success in which should be made a condition of permanent employment as a teacher in a secondary school". The second National survey of secondary teacher education in India conducted by the department of Teacher education in the NCERT, observed that very little work has been done in this country in determining what make a good and effective class room teacher. On May 21, 1973 Govt of India established the National Council for Teacher Education (non-statutory) as an advisory body. The National policy on education, 1986, called for an over-hauling of Teacher Education at all levels, on one hand, and qualitative improvement of school education, on other. Soon after the NCTE started functioning as a statutory body, it initiated a stringent step to stop, control and regulate, on top priority, the B. Ed. correspondence courses. The NCTE has framed a set of norms and standards as well as rules and regulations to promote quality of teacher education at all levels, over the years, and put them on its website to create general awareness

and bring transparency in the system.

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The Four Dimensions of Good Law

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Abstract: Law is of great value in the governance of a country, and good law is the prerequisite of good governance. The legislation is the first step of the law-based governance; in fact, the law-based governance is the governance based on good law. The good law has four dimensions: time dimension, from the permanent pursuit, due to the time background; spatial dimension, close to the realistic condition, follow the realistic mission; dimension of position, on behalf of people's will, based on people's interests; dimension of itself, accord with constitutional spirit, harmonious with legal system. The good governance is the good law plus the good implementation, and that's the road and goal of our socialist rule of law.

Key words: Good law and good governance, Social legislation, Law limiting the power, Law protecting the right, Constitution supervision system

1. Introduction

In October 2014, fourth session of the eighteenth CPC Central Committee passed The Decision of the CPC Central Committee on Major Issues Pertaining to Comprehensively Promoting the Rule of Law, the first special decision on strengthening the construction of the rule of law in the history of CPC. The Decision unequivocally points out "Law is of great value in the governance of a country, and good law is the prerequisite of good governance".

The traditional that the legislation went first was consistent for a long time in the construction of the rule of law in our country. In 1978, third session of the eighteenth CPC Central Committee established a guideline that there are laws can and must be in accordance with, strictly enforce the law, look into the unlawful practice". In 2012, the eighteenth CPC Central Committee put forward a principle in the new period that scientific legislation, strict law-enforcement, impartial justice, observing the law nationally". The legislation was always put in the first place.

It's the first priority for comprehensively promoting the rule of law to focus on the importance of legislation, improve the quality of legislation, and give play to the role of tap and guide of legislation. The legislation is the first step of the law-based governance; in fact, the law-based governance is the governance based on good law. The good law has four dimensions: time dimension, spatial dimension, dimension of position, dimension of itself.

2. Time dimension: from the permanent pursuit, due to the time background

The good law is an enduring topic in legal science, no matter in

the ancient or modern, Chinese or the foreign. It was so magic that many jurists from generation to generation were fascinated by it, disputed for it, searched for it. In the pre-Qin period, the Confucian treated righteousness as the reason and result of the law, but the Legalism treated benefit as the starting point and foothold of the law. Since the spring and autumn period, the argument about righteousness and benefit which run through the whole intellectual history of China led to a problem what is the criterion of good law. Since modern times, thinkers between the late Ming and early Qing dynasty represented by Huang Zongxi, the bourgeoisie reformists represented by Liang Qichao, the bourgeois revolutionaries represented by Sun Zhongshan made different explanations about the good law. As a clear concept, the good law was put forward first by Aristotle, the ancient Greek thinker (Li & Wang, 2001). He thought, "the rule of law should include a dual meaning: the law has been established is generally obeyed, and the law itself should be formulated well". Later, the natural law school advocated "the evil law is not law", but the analysis law school advocated "evil law is also law".

All people know the goodness of the good law, the case about the badness of the evil law are endless. A law formulated by the Nazi government in 1934 stipulated that the comments going against the third Reich are illegal. In 1944, a woman who planned to frame her husband, a serving officer, told the authorities that he had criticized Hitler while on vacation at home. As a result, her husband was sentenced to death. Bad law not only leads social order disorder and moral corrupt, but also may become a kind of tool used for revenge or circumvention. After the Second World War, in the process of the trial of Nazi war criminals, based on the thinking about the tyranny

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brought by the fascist rule, legal scientists launched a wide debate about the good and evil law.

Good law must be the legal norms which get a balance between the stability and contemporaneity. The law which does not change is not credible. The law which always changes is not reliable. The rules, principles, concepts, language style of the good law in a specific time, will catch the color of that time. Is there good law beyond a specific time? The spirits of good law will exist forever, but the carriers of good law are different.

The deviation between ideal and reality of law decides that the political and legal theory have to study what the law ought to be (Li, 2000). Good law bears the human's beautiful pursuit for justice, freedom, equality, love and so on. It is a timeless ideal of human society to pursue perfection. The human pursue perfection, but seems to never get perfection. But it does not mean that this pursuit is worthless. Knowing it can not be completed, do it; knowing it can not be got, chase it. It may be the meaning of existence of the true, the kind and the beautiful to get happiness in the process of chase those.

3. Spatial dimension, close to the realistic condition, follow the realistic mission

In the time dimension, the good law is still in a state of "metaphysics". The good law can not be separated from the specific realistic condition, and it must serve certain realistic mission. It is the biggest realistic condition for the current China to is and will remain at the primary stage of socialism for a long time to come. It is the largest realistic mission for the current China to comprehensively deepen the reform of the socialist cause.

At present, the reforms of many fields in China have entered the important stage. The reform is not blind and need direction; not disorder and need basis. This direction is the rule of law, this basis is the law. The relation between legislation and reform is dialectic and corresponding. The rule of law is the sibling of the reform. The efficient law is a track leading the reform career smooth and orderly; the achievements of the reform promote the law more perfect in turn. There is the systematic correlation in essence and the institutional interaction in practice between the reform and the rule of law (Chen, 2014). The reforms should base on the laws, and legislation should actively adapt to the requirements of the reforms.

Take social legislation for example. The essence of socialism is also the nature of social law and can most reflect the guiding ideas and goals of social law in the most degree. The social law is a kind of law which is order to liberate and develop the productive forces, abolish exploitation and polarization, and ultimately reach the state of widespread wealth for all people (Wang, 2015). After the reform and opening-up, because the economic construction is the key of the

work of our party and state, the pace of economic legislation was faster significantly, while the social legislation relatively lagged. Of course, as a superstructure, law must be based on certain economic base. In fact, the certain development of social legislation after the reform and opening-up is just with the achievement of economic construction and the improvement of people's living standard.

At present, the socialist construction of our country is more prosperous, the social environment is more stable, and people also have higher expectations for the living standard. In the case of education, from the previous "have a school to go to" to now "have a better education"; in the case of employment, from the previous "have a job" to now "have a good job"; in the case of health, from the previous "can find a doctor" to now "have medical insurance". The eighteenth CPC Central Committee clearly put forward an overall layout constituted by the political construction, economic construction, cultural construction, social construction and ecological civilization construction, and indicated the main task of the social construction. The social management system reform is the focus of social construction, and urgently need the direction and support of social law.

In the past, social legislation often appeared as an auxiliary mean of economic construction. For example, at the beginning, the current laws about labor relation were order to safeguard the reform of state-owned enterprises. The own independent value of Labor law was not obvious. In the future, social legislation will be linked with social construction itself more closely. As the premise and foundation of social legislation, the achievements of social construction provide the economic basis and public opinion support for it. In turn, providing system and environment guarantee, social legislation promote social construction to develop further.

4. Dimension of position, on behalf of people's will, based on people's interests

The good law is not always good in any period or place. Facing to the Infinite universe, human is small such as a drop in in the ocean. The cognitive ability of human in a specific historical stage is limited. The good law today may be an evil law tomorrow, and the good law here may be an evil law there. In one sense, all things in the world, including law, essentially should be neutral. The judgment about whether a law is good or bad, must be based on a certain position. The will and interests of the people are the position of our socialism country. What our socialism cause need is the law respecting the regular patterns, manifesting the progressive spirits, reflecting the people's will and interests.

Take administrative procedure law for example. In the feudal society period, law is a kind of tool of the landlord class. There is no clear distinction between substantive law and procedural law, among

criminal law, civil law and administrative law. "Officers, peasants, workers, businessmen", reflected the dignity of officials and the lowliness of ordinary people. "As a poor man, do not fight with the rich men; as a rich man, do not fight with the officers," even became a word of advice. On October 1, 1990, the administrative procedure law of the People's Republic of China formally implemented. Compared with the criminal procedure law and civil procedure law, it has a special, epoch-making significance. Because it established the legal procedures of "people sue officer", for the first time, put "people" and "officer" at the ends of the scale of law. This is a milestone in the construction of the rule of law in our socialist country.

Along with the development of the time, more than 20 years, great changes have taken place in our country's economy and society, the old administrative procedural law has been unable to meet the high expectations of the people. In recent years, the national courts dealt with only more than one hundred thousand administrative cases per year. In practice, some courts, especially the grass-roots courts, often reject administrative cases, using a variety of reasons. Even if the cases are accepted, the justice of the process can not be guaranteed; even if the trials have results, the sentences can not be well implemented. The new administrative procedural law going into effect on May 1, 2015 bright many bright spots to people. It resolve the difficulties in putting on record by "open the door, open the large door, often open the door, sweep the door clear", resolve the difficulties in the trial by "attach great importance to mediation, keep the justice, promote the fair, oppose the inaction", resolve the difficulties in implement by "catch the purse, tear the face, detain the body, awe the heart". In our country, the fundamental goal of the administrative litigation is "protect the legitimate rights and interests of citizens, legal persons and other organizations", and "ensure the correctness and timeliness of handling administrative cases of the people's courts", "safeguard and supervise that the administrative organs exercise administrative power in accordance with the law" take a back seat in the purposes, as the means and ways of realizing the fundamental purpose—"protect the legitimate rights and interests of citizens, legal persons and other organizations " (Zhan, 2012).

Administrative law and social law are different in the fields of attention, the object of adjustment, the direction of legislation, but common in the essence, purpose and spirit of legislation. Administrative law is a law limiting the powers of government, and the social law is a law protecting the rights of the people.

The absolute value of a positive number is greater and a negative number is smaller, they can be infinitely close to zero. The government can be "smaller" when the administrative law is greater, and the society can be "greater" when the social law is "greater".

Under the background of the transformation of the government functions, to achieve the transition from "big government, small society" to "small but strong government, big and good society", administrative law and social law are both required.

5. Dimension of itself, accord with constitutional spirit, harmony with legal system

Good law is the prerequisite of good governance, constitutionality is the premise of good law. Insisting on the rule of law, the first step is sticking to governing the country by constitution. It is necessary to always treat the intention of the constitution as the benchmark in the process of making laws of all departments and all levels. If the constitution is the palm of Buddha, other laws are Sun Wukong. Other laws can not be from the domain of the constitution, although they also have great space to create. It can bring a reliable guarantee of realizing China's dream to construct the system of socialist rule of law with Chinese characteristics based on the constitution (Mo, 2014).

Constitution is the fundamental and essential law in our country. All other laws are based on it, according to it and originating from it. To ensure the goodness of other laws, the first step is ensuring the goodness of development and implementation of the constitution.

Since the founding of new China, we have enacted four constitutions. Absorbing the Chinese traditional legal culture and the western advanced legislative experience, combining with China's specific national conditions, the current constitution is enacted. Keeping pace with the times, the current constitution is improving. Giving a wide range of rights to the citizens, ruling the operation of the state institutions, the current constitution is rich in content, distinct in character, firm in standpoint.

Combining with the experiences and practices of constitutional enforcement of countries under the rule of law, for the constitutional enforcement, the following three points are necessary at least: first, whether the supervision mechanism of the constitutional enforcement is sound; second, whether the mechanism of the application of the constitution is established effectively; third, whether the behaviors contrary to the constitution are dealt with effectively (Mo, 2013). At present, our country has initially formed a unique system of constitutional supervision. It has obtained many achievements and accumulated many experiences to put the National People's Congress and its standing committee as the constitutional supervision authority. Because of multi-level and multi-sector legislation system in our country, the number of the laws is large, and the content of the law is rich. For guaranteeing the unconstitutional laws are discovered and corrected timely, it is necessary to improve the system of constitutional supervision constantly.

On the premise of doing not act contrary to the constitution, a law should pay attention to the harmony in the entire legal system. It includes the harmony between higher-level law and lower-level law, new law and old law, special law and general law.

If there is no the harmony of the laws, it is impossible to have the harmony of human behavior and social relations which were adjusted by the laws, it is also impossible to have a harmonious society (He, 2006). For the harmony of the principles, contents and languages of the laws, it is necessary to make legislation process stricter, legislation technology more advanced, legislation art more outstanding.

6. Conclusion

The general principle of good law can be summarized as "many, fast, well, frugal". The "many" of good law refers to a complete and perfect system of laws, preventing the stop-gap measures in the process of law enforcement. The "fast" of good law refers to respond to the changes of social situation, focus on the solvents of social problems time, in order to give full play to the effects of laws in time. The "well" of good law refers to the true, the kind and the beautiful. The "frugal" of good law refers to prepare well for saving time and money in the process of enforcement, judgment and observation of the laws.

The life of law lies in implementation, the life of good law lies in the good implementation. If the implementation is not good, the

law is only a pile of beautiful papers. Whether hard or soft, it must be good law and good governance. The good governance is the good laws plus the good implementation, and that's the road and goal of our socialist rule of law.

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A Study on Application of Performance Excellence Management Model in Media Enterprise A

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Abstract: Performance excellence management model is now the world many governments, the world first-class enterprise high degree of consensus of an organization or enterprise management model. It includes not only the quality of the micro level, business operation including macro-economic and social quality of the operating level. So the comprehensive research performance excellence management model in A media group import and construction experience, explore the Chinese private enterprise management practice research.

Key words: Excellent performance, quality control, strategy, human resource management, operation

At present, the performance excellence management mode, an organization or enterprise management mode, has been highly recognized by multiple national governments and world-class enterprises; it originates from quality control in enterprises. At the very beginning, performance excellence management mode is presented as the Malcolm Baldrige National Quality Award which not only concerns the quality at micro level of enterprise operations, but covers the quality in aspects of macro economy and social operations. At the earliest, the performance excellence management mode can be traced back to the Deming circle, which is developed into the Deming Prize later, invented by Daiming in 1950. As inspired by contributions from this Prize to the economy of Japan, national quality award criteria named after Malcolm Baldrige, a specialist in management, were put forward; then, in 1997, the assessment standard of Malcolm Baldrige National Quality Award was officially renamed as the performance excellence management mode. As the continuous promotion of the concept of national quality, quality awards have been established in other developed countries successively; among which, the most representative one is the European Quality Award. Globally, more than 60 countries are provided with their own quality awards following the example of the above three quality awards. Therefore, it can be said that overseas researches on the performance excellence management mode are primarily derived from such three quality awards. In China, the

national standard of *Performance Excellence Appraisal Criteria* (GB/T19580-2004) was officially launched in September, 2004, which marked that quality control in China enters a new stage. Hence, as far as enterprises are concerned, instead of referring to quality evaluation standards of other countries, they are able to adopt the appraisal criteria suitable for situations in our country, as what hopes by enterprises pursuing excellence. Based on the Core Value of China, the performance excellence management mode employs relevant elements as implementation points to break down those elements step by step during enterprise introduction and establishment; ultimately, focal points from business management behaviors serve as the introduction points to complete the performance excellence management mode establishment in a progressive manner. Through summaries of standards, the performance excellence management mode utilizes 7 major elements (leadership/strategy/customer/market-oriented; measurement, analysis & improvement; emphasis on talents; process management; and business results) as entry points of enterprise introduction, followed by decomposition of major elements into 21 secondary sub-elements, 37 three-level elements and established points with stresses. On this basis, introduction and establishment of such a performance excellence management mode can be fulfilled successively. (As Shown in Table 1)

Major Elements	Sub-elements	Focal Points
Leadership	Organizational Leadership	Senior Leadership
		Organizational Governance
	Strategy	Social Responsibility
Corporate Responsibility		
Strategy Formulation		Employee Responsibilities
		Strategy Formulation Process
Customer/market-oriented	Strategy Deployment	Strategic Target
		Formulation and Implementation of Actions and Plans
	Understandings of Customers and Markets	Performance Prediction
		Understandings of Customers and Markets

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	Customer Relations & Customer Satisfaction	Establishment of Customer Relations Customer Satisfaction
Measurement, Analysis & Improvement	Measurement and Analysis of Organizational Performance	Performance Measurement Performance Analysis
	Information and Knowledge Management	Availability of Data Information Organization Knowledge
	Work System	Work Organization and Management Employee Performance Managing System Employment & Promotion
Focus on Human Resources	Learning and Incentive of Employees	Employee Training and Development Incentive and Career Development
	Benefits and Satisfaction of Employees	Work Environment Employee Satisfaction
	Value-creating Process Supporting Process	Value-creating Process Supporting Process
Process Management	Results Related to Being Customer-oriented	Results Related to Being Customer-oriented
	Results Related to products and services	Results Related to products and services
	Results Related to Finance and Market	Results Related to Finance and Market
	Results Related to Human Resources	Results Related to Human Resources
	Results Related to Organizational Effectiveness	Results Related to Organizational Effectiveness
Business Results	Results Related to Governance and Social Responsibilities	Results Related to Governance and Social Responsibilities

Table. 1 Table of Elements in Performance Excellence Management Mode

The core of performance excellence management mode lies in the reinforcement of internal organizational management, the improvement of customer and employee satisfaction, the pursuit of excellent performance. As has been extensively recognized in business circles and management fields of America where it is widely applied into enterprises and public institutions, etc., it is also subsequently utilized in and verified by organizations, such as hospitals and schools, etc.. However, for private enterprises in China, they are confronting irrational management phenomena such as enterprise resource wastes, etc. caused by imperfection of enterprise management system; consequently, normal growth and financial revenues of enterprises may be even under their constraints. Concerning the traditional media industry, as the internet unceasingly develops and the cool media (such as newspaper and magazines) keep shrinking, it is faced with an embarrassing circumstance of inevitable transformation development on the premise of continuous rise of new network media. Therefore, at the time of performance excellence management mode introduction, the element of internet should be considered appropriately in terms of the media industry. In this paper, through the study on performance excellence management mode construction process introduced by in the media group A, theoretical framework and value standard of this mode are deeply analyzed by focusing on the national quality award which also can be referred to as the performance excellence appraisal standard. In addition, process and problems of performance excellence management system introduction in Group A are dissected to present rules followed by the performance excellence management procedure introduction in enterprises together with some issues that require paying attention to in the process of introduction.

Experience of performance excellence management mode introduction in media group A has some positive reference

significances to private enterprises. As a national key enterprise and starring private enterprise in Shenzhen, the performance excellence management mode introduction here also sets an active example for other private corporations of Shenzhen. Since 2010, the media group A started to introduce a performance excellence management appraisal criteria; through comparative references of three-year management factors continuously, significant progresses in both the interior development and strategy of this group are realized thanks to such a management mode. In addition, a strategy transformation from traditional media to internet and exhibition media is also fulfilled. Combining development situations of its own, such an introduction in media group A is completed from aspects of organizational leadership, strategic management, customer management and human resource management, etc. in combination with elements of performance excellence management. As a result, the introduction of performance excellence management mode is completed ultimately and rather preferable performances are also acquired in several aspects including business operation. In terms of products, media group A also pays attentions to new technology applications and planning innovations, so as to provide business opportunities for partners. Hence, in addition to achieve a win-win goal hand in hand, service quality improvement is also very significant. Not only is it favored by customers, but acquires good reputations from both partners and government agencies. The media group A maximizes all requirements and demands of customers. Concerning all perspectives of demand presentation, planning, innovation, as well as final scheme formulation, implementation and delivery, thorough plan arrangement and schedule following up are both carried out. Through cooperation and communications with customers, various products and services of this group have a tendency to be located on an industrial leading level. Now, the media group A has become a media enterprise in Chinese extensive

furniture industry with the most exhibition programs and the most broad coverage. In terms of customer satisfaction, it increases year by year in media group A; especially for the exhibition industry, the satisfaction is as high as 98%, which is the result of attaching great importance to customers during performance excellence mode introduction here. According to characteristics of network media and exhibitions, an indicator system according with requirements of customers is set in this group so as to obtain their customer satisfactions. After comparing with those of competitors, such as investigations and computing of indicators including exhibition's

professional orientation, customer expectation, the number of customers participating in the exhibition, etc., as well as comparisons between the group and competitors within the entire customer lifetime cycle, fit-to-purpose of customers can be constantly improved and enhanced. From the perspective of finance, after performance excellence management mode introduction, the overall operation capacity of media group A shows a staggering growth, as multiple financial indexes exhibits an upward trend and successive incremental is also realized for the total assets, the main business revenue and the net profit, etc.. (See Table 2)

Dimension	Target Item	Annual Index of 2013
Finance	Business Income	RMB 0.25 Billion
	Net Profit	RMB 50 Million
	Ratal	RMB 30 Million
	Ratio of Profits to Cost	31%
	Net Assets Income Rate	20%
	Debt-to-assets ratio	46%
	Exhibition Expansion Area	0.125 Million Square Metes
Market	Channel Coverage	48%
	Customer Satisfaction	95%
	Customer Complaint Processing Ratio	100%
	The number of Case Cooperation Enterprises	150
Inner Operation	The Number of Cities where Regional Investment is Held	20
	Distributor Strategic Alliance	1000
	Management Maturity	500 Points for Performance Excellence Self-assessment
Learning and Growth	Public Benefit Support	RMB 1.20 Million
	Customer Satisfaction	85 Points
	Workforce Engagement	85 Points
	Training Plan Implementation Rate	98%
	Employee and Cadre Promotion Rate	35%

Table. 2 Table of Key Performance Measurement Index in Media Group A

Nevertheless, despite of some achievements acquired in media group A, shortcomings existing in performance excellence management mode introduction should also be stressed. Regarding performance excellence mode construction and implementation processes at the overall organizational level, criteria of it are ponderously executed item by item through the comparison with the original performance excellence management mode, while former management and cultural deposits of the group are neglected. Consequently, after the introduction, emphasis of the work becomes indefinite and it also fails to clearly judge the magnitude of influences of major elements on the group. Besides, data collections are incomplete in this group before such an introduction. During introduction execution, data relevant with effectiveness, human resource results, social responsibility results are still not collected consciously, which brings great difficulty to subsequent performance excellence management data analysis. Simultaneously, comparative analysis conducted by media group A for industrial trend and benchmarking is insufficient so that self-analysis reports cannot be formed in the end. In conformity with performance excellence mode introduction requirements, the media group A performs trend

analysis specific to performances and progress of it. However, due to incomplete internal data, it fails to carry out such analysis in an accurate and thorough way. Ultimately, from perspectives of management systems introduced by the group and their execution, discrepancies lie between it and elements of the original performance excellence management mode. According to researches on both the procedure and results of performance excellence management mode introduction in media group A, successful experiences of employing the performance excellence management mode to improve the integration management in this group are summed up. In line with such a research, major successful experiences can be concluded as follows. Firstly, before performance excellence management mode introduction in media group A, it has some management documents and operational procedures related to quality control; during constant growth, this group also has become the industry benchmark within the corresponding domain and acquired consistent praises in the same industry. Secondly, as performance excellence management mode introduction in media group A needs a long process and a permanent job, even though staged achievements are gained by it during introduction, the

performance excellence management mode introduction is still a long-term and arduous work for enterprises. In detail, performance excellence management committee is established for departments at the primary level in this group; as a result, a performance management department is separated from the performance management function of HR department. In allusion to facilitation and normalization of performance excellence management, directional management is provided; moreover, this committee takes the responsibility to make integrated planning for the performance excellence management in this group from aspects of strategy and top management. Comparatively, the performance management department is primarily responsible for constant deepening and continuous improvement work after the introduction of such a mode. Thanks to this department formation and administration, the performance excellence mode introduction can be settled in this group so that adjustments and implementations can be made correspondingly according to physical situations in this group, together with continuous improvement and innovation here. As a result, the performance excellence management mode can be executed in a real sense. Thirdly, after the media group A is provided with conditions for performance excellence mode introduction, starting from the future development of it, the group decides to put internet media transformation in the first place to benefit from the introduction of performance excellence management mode, so that transformation development issues encountered by enterprises are discussed on a strategic level. Furthermore, the network media is selected to lead the facilitation of performance excellence management mode. On one hand, problems and practices requiring attentions from the group strategic transformation are resolved; on the other hand, due to rapid implementation of group strategies and business transformations incurred by contributions from the mode introduced, the strategic transformation of this group is realized. Fourthly, in the process of performance excellence management mode introduction in media group A, it receives universal supports from group leaders in terms of the relevant promotion and implementation. At the very beginning of performance excellence management mode introduction, its board of directors and CEO express their supports on top management mobilization meeting in a high-profile manner.

In a word, based on the study of performance excellence management mode introduction in private enterprises, unnormalized management turns into normalized in such enterprises, as can be noticed at the initial phase. Therefore, in this stage, enterprises are able to gain relative operating earnings generally, as they hope. However, during the middle and later periods of such introduction, and even the execution and consolidation stages after the

introduction, technical faults such as seeking quick success and instant benefits as well as short-sighted goals may occur in private enterprises on one hand. While on the other hand, the performance excellence management mode of China relies on the national quality award; as some introduction factors do not conform to development status of them, certain difficulties are brought to performance excellence management mode introduction in such private enterprises. The performance excellence management mode also has some strong points. For example, not only does it have an important significance for private enterprises to enhance their own management systems, but it is able to timely improve management problems such as resource wastes incurred by mismanagement in private enterprises and perfect their operating performances within a short term. As performance excellence management is not a short-time management program, it requires private enterprises to carry out perseveringly and steadfastly, to generate actual management reforms for corporations.

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An Exploration to the Different Version of *Guang hongmingji*

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Abstract: *Guang hongmingji*, written by Daoxuan during the reign of emperor Gaozong (664-665), is a work of Buddhism ideology document collections. It has included more than 560 articles related to Buddhism from Wei-Jin period to the earlier stage of Tang dynasty and is one of the most important corpuses for the studying of medieval Chinese. The proofreading of *Guang hongmingji* based on the variant versions of *Guang hongmingji* and different reference of Buddhist sutras is one of the most vital subjects for the establishment of medieval and modern Chinese corpus.

Key words: *Guang hongmingji*, medieval Chinese, variants, Buddhist sutras

Guang hongmingji, came into a book during the reign of emperor Gaozong (664-665), written by Daoxuan in his old age, the forefather of the Vinaya school of the southern mountain, is a work of Buddhism ideology document collections. It has ten Buddhism documents classified with a total of thirty volumes. It records over 560 articles related to the Buddhism from Wei-Jin period to the early stage of Tang dynasty, which are compiled by more than 200 writers. *Guang hongmingji*, compiled based on *Hong mingji* written by Sengyou in Liang dynasty, was designed for the promotion of Buddhism spirit and interpretation of Buddhism justice. Difference between *Guang hongmingji* and *Hong mingji* are found in arrangement. *Hong mingji* has twelve volumes with no classification, while *Guang hongmingji* has thirty volumes and is classified into ten types in accordance with contents of compiled literatures. They are involved in reformed theology, apologetic, successful end, Dharma, monk, Tzu Chi, exhortation, pray, penitent and normalization. Eleven prefaces which consist of every preface at the beginning of a chapter written by Daoxuan himself and a general introduction are included in *Guang hongmingji*. Judging by the content, *Hong mingji*, written by Sengyou, is mainly related to the Buddhism literature. While *Guang hongmingji*, compiled by Daoxuan, contains many a Buddhism literature to which reference books and official history attach no importance. Therefore, *Guang hongmingji* has more literatures than *Hong mingji*. It is noticeable that parts of materials included in *Guang hongmingji* is not as objective and factual as that of *Hong mingji* for Dao xuan's attitude toward the disputes of three religions is greatly similar to the explicit responsibility to teach and protect Buddhism.

Guang hongmingji is not only a resource treasury for the study of religion, intellectual and cultural history but a idea corpus for language researchers to study on the medieval Chinese. The poetry materials from Liang of southern dynasty to the earlier stage of Tang dynasty are constituted the main parts of *Guang hongmingji* judging from the age of literatures compiled by Daoxuan. Considering the contents of literatures, it mainly consists of biography of Buddhists and the records of disputes of three religions, which are intended to carry forward Buddhist culture and protect Buddhist doctrine.

Consequently, the tone of *Guang hongmingji* is fierce, lively and close to oral Chinese. All these facts are easier to be neglected by the medieval Chinese researchers. *Guang hongmingji*, on the whole, is a masterpiece of the collection of Buddhist scriptures at the earlier stage of Tang dynasty. The profound interpretation to and excavation of the connotation of *Guang hongmingji* should be based on the definitive edition with an improved proofreading and critical annotation. It is also true of the exploration of Chinese characters in earlier Tang dynasty on the basis of the connotation of *Guang hongmingji*. It is only the Liu Linkui who has traced back and organized the source of materials, compiling style and the concept of compilation of *Guang hongmingji* from the perspective of history and literature. No definitive edition for *Guang hongmingji* is found nowadays in circles of Buddhism culture and language, which is a pity for the study of Buddhism and Chinese language histories. A mature definitive edition proofread is at first on the basis of a complete organization of variant literatures. Therefore, it is general believed that the organization of variant *Guang hongmingji* is a vital subject to be studied. A preliminary research on variants of *Guang hongmingji* was made by the author in aspects of variant versions of *Guang hongmingji* and references of Buddhist sutras.

To collect various version of *Guang hongmingji* is the first step for its proofreading. It has been spread so far with plenty of block-printed editions written in Tibetan or other languages. Included in Tibetan language are the Chinese Sutras printed in Zhaocheng city (21 volumes preserved), old Tripitaka Korean (18 volumes saved), new Tripitaka Korean, Taisho, Qisazang and Yong Le Bei Zang. While there are four collections of the version of Tianning Temple in Changzhou city, four collection of Wang Daokun photocopies and the version of complete library of four branches of literature in Wenyuan pavilion. The Chinese Sutras of *Guang hongmingji* is based on Zhao cheng jiang zang and supplemented with new Tripitaka Korean as well as proofread by means of Zi fu Zang, Qisgazang, Pu Ning Zang, Yong Le Nan Zang, Jing Shan Zang and Qing Zang. As to the Taisho Tripitaka of *Guang hongmingji*, it is considered new Tripitaka Korean as the photocopy and amended by using the version of Song, Yuan, and Ming dynasties. Little

Fund: The innovative fund project for graduate students in Hebei University (X2015040).

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difference is found in the arrangement of Chinese Stratus and the Taisho Tripitaka. Both only listed the similarities and differences of language between various versions but with no judgments. It is not the proofread in a strict sense. The proofreaders generally will not modify the words of photocopies but pursue fluency of contents during the process of word processing. All required are not to have an impact on explaining the Buddhist doctrines and carrying out the spirit of Buddhism. Zhu Qingzhi (1992) hold the belief that although Chinese Buddhist scriptures have been copied or made into private copies several times, their original editions are possible to be obtained and are able to be considered as a reliable corpus for the study of medieval Chinese with a slight discrimination as their words are not strictly revised when proofread. The comments made by Zhu Qingzhi are very objective in the authenticity and importance of proofreading of Chinese Buddhist scriptures. Great importance should be attached to the materials of variants of Chinese Stratus and Taisho Tripitaka which have not been proofread as *Guang hongmingji*, Chinese Buddhist scripture, is proofread at present.

The version of *Guang hongmingji* we selected is considered new Tripitaka Korean as the photocopy with many a collection written in Tibetan or other languages. Kaibao Hoardings, known as the first printing blocks of Tripitaka in earlier Northern Song dynasty, is the photocopy of the Zhaocheng Jinzang and Tripitaka Koreana which belong to the Taisho Tripitaka of central China system. As the Kaibao Hoardings disappeared, the Zhaocheng Jinzang and Tripitaka Koreana which are inherited from the Kaibao Hoardings are highly valuable. At present, Zhaocheng Jinzang and old Tripitaka Koreana are incomplete. While new Tripitaka Koreana is a complete Tripitaka Stratus with good appearance and condition. Proofreading of *Guang hongmingji* based on the Tang Huilin's *The Sound and Meaning of the Tripitaka* and Ke hong's *Xin Ji Zang Jing Yin Yi Sui Han Lu* and the original block-printed *Guang hongmingji* were combined to make a comparative study in this paper. While, it is only the new Tripitaka Koreana that completely records these two above famous Buddhist sutras in all ancient Buddhist scriptures. The new Tripitaka Koreana was considered as the photocopy to study and organize variants of *Guang hongmingji* and Buddhist scriptures so as to ensure the uniform of materials to be researched to a greatest extent, which facilitates the better understanding of corruption and changing rules of the Chinese writing of the new Tripitaka Koreana and seize the writing characteristics of *Guang Hongmingji* from the overall writing style of the new Tripitaka Koreana.

The documents of *Guang hongmingji* have provided parts of materials of reference variants, of which included are *The Sound and Meaning of the Tripitaka* compiled by Tang Huilin, *Xin Ji Zang Jing Yin Yi Sui Han Lu* written by Ke hong, a monk in Five Dynasties and the Buddhist scriptures attached in each volume of *Guang Hongmingji* of Qisgazang.

It is proved that Vol. 97, 98 and Vol.99 of *The Sound and Meaning of the Tripitaka* compiled by Tang Huilin and volume 29 and 30 of *Xin Ji Zang Jing Yin Yi Sui Han Lu* written by Kehong provide 892 and 5480 Buddhist scriptures respectively for the reference of *Guang Hongmingji*. *The Sound and Meaning of the Tripitaka* was compiled by Tang Huilin before AD 808. It now is existed in the new Tripitaka Koreana and collected in Pinjiazang, Hongjiaozang, Taisho Tripitaka and the Chinese Sutras. *Xin Ji Zang Jing Yin Yi Sui Han Lu*, compiled by Kehong, a monk in Five Dynasties in AD 940, is also existed in the new Tripitaka Koreana

and collected in Hongjiaozang and the Chinese Sutras.

A comparison was made between *The Sound and Meaning of the Tripitaka* and *Xin Ji Zang Jing Yin Yi Sui Han Lu* from the perspective of compilation purpose. The former emphasizes on the detailed description and exploration of Buddhist terminologies, dialects and spoken words and ordinary words not easy to be understood and read. While the latter focuses on the identification of difficult written characters and homographs as well as wrong words. Besides, as these two Buddhist scriptures have different purposes, their arrangement styles have different portions, especially in the identification of headwords and correction of phonetic notation. *The Sound and Meaning of the Tripitaka* finished by Tang Huilin tends to mark orthographies when headwords are identified. If a word in the photocopy of *Guang hongmingji* referenced by Huilin is found to be a wrong or loan one, it would be noted as the term, "Guanghongmingji considered as A" (which is saw 129 times), in the annotation to indicate the original word and pointed out that it is a wrong or loan one or even analyzed. While the headwords identified in *Xin Ji Zang Jing Yin Yi Sui Han Lu* are often directly transcribed from the reference scripture of *Guang hongmingji*. Therefore, the glyph remains to be original image of transcript of Tang dynasty to a large extend. If certain a headword should be a wrong or loan one, Ke hong would use the term, "corrected as A" or proper "considered as A" or "combined as A" to indicate the orthography or the word which is treated as the better one in Buddhist scripture.

Various document and literature evidences were provided for the investigation and phonetic notation when *The Sound and Meaning of the Tripitaka* finished by Tang Huilin make a proofread for the Gung hongmingji. It is investigated that main documents and the number of entries included in the proofreading of *Guang hongmingji* are *Shuo Wen* (628), *Guangya* (70), *Dialect* (32), *Shi Ming* (6), *Yu Pian* (4) and *Zi Lin* (1). The wealth of reference materials and prudent analysis of sound and meaning in Huilin's scripture are unique first hand materials for people to study on Chinese lexicology, phonology and philology from pre-Qin to medieval period. It is also true of Huilin's "annotation" in *Guang hongmingji*. Ke hong has made great efforts to proofread the phonetic annotation, interpretation and definition of words of *Guang hongmingji* in *Xin Ji Zang Jing Yin Yi Sui Han Lu*. Han Xiaojing (2009) believed that four methods were employed in A study on the Ke Hong Yin Yi during the whole process of proofreading, i.e., the proofreading with different translations, proofreading with different versions, referencing to previous generations of dictionaries, scriptures and self-annotation. To be specific in *Guang Hongmingji*, the author thinks that those Buddhist scriptures referenced by Ke Hong, written by former generation of scribes, are most noticeable. It is proved that the Buddhist scriptures and the total amount of entries used by Ke Hong for the proofreading of *Guang Hongmingji* are *Xi Chuan Yin* (77), *Xin Ding Yi Qie Jing Lei Yin* (5) written by Guo Yi, Xuan Yin's *The Sound and Meaning of Tripitaka* (3) and *Zhe Xi Yun* (1). The Buddhist scriptures referenced by Ke Hong which are now mostly disappeared are of high value for the collection of vital literatures and proofreading of different versions of *Guang hongmingji*. The proofread conclusion made by Ke Hong in *Guang hongmingji* are on the basis of the reference of variants of Buddhist versions with different languages and diverse variant forms of preferences of Buddhist scriptures compiled by different scribes and

of distinctive Buddhist contents, which enables people to know what is unknown and correct what is not rectified.

Huilin's *The Sound and Meaning of the Tripitaka* and Ke Hong's *Xin Ji Zang Jing Yin Yi Sui Han Lu* were compiled earlier than the oldest existing engraved Buddhist scriptures. As a result, they can reflect the original image and Chinese characters of literatures in the manuscript or transcription of *Guang Hongmingji* of Tang dynasty. The transcribed headwords in *The Sound and Meaning of the Tripitaka* and *Xin Ji Zang Jing Yin Yi Sui Han Lu* and the actual characters in Dunhuang manuscripts are comparable when the proofreading is made between these two Buddhist scriptures and French Tibetan Dunhuang Chapter(S3617)—remnants of Faleen's *Bian Zheng Lun*. *Shi Yu Jiu Zhen Pian* of *Guang hongmingji* and manuscripts of other Dunhuang Buddhist scriptures concerned with the contents of mentioned remnants. *The Sound and Meaning of the Tripitaka* and *Xin Ji Zang Jing Yin Yi Sui Han Lu* is highly valuable and of great importance for the exploration of the cause of and Judgment of the right and wrong of variant *Guang Hongmingji* and the rectification of missing characters in *Guang hongmingji*.

Apart from Huilin's *The Sound and Meaning of the Tripitaka* and *Xin Ji Zang Jing Yin Yi Sui Han Lu*, compiled by Ke Hong, phonetic annotations in very chapter of *Guang hongmingji* of Qisgazang also attracts our attention. The block-printed Qisgazang of Pingjiang of Southern Song Dynasty from volume of 476 to 478 has recorded 30 volumes of unabridged *Guang hongmingji* whose every chapter is enclosed with phonetic annotations. It is investigated that the total of phonetic annotations of Qisgazang provided for the *Guang hongmingji* is up to 4971. Tancui (2013) argued that "The phonetic annotations in Qisgazang are not completed by a person in one place in such a short period but obtain from many complicated sources with different arrangement styles. And the sources of various phonetic annotations are not the same as that of the previous enclosed Buddhist scriptures. In other words, the phonetic annotations concerned are transcribed by Buddhist scribes from other corresponding volume of phonetic annotations compiled by other personnels or from enclosed phonetic annotations in the corresponding volumes of other versions of Tibetan Tripitaka. Therefore, the words listed in the headwords of enclosed phonetic annotations are different from the original words of Buddhist scriptures and some contents of interpretations not the same as those of Buddhist scriptures". These comments deserve our attention. It is proved from the investigation of enclosed phonetic annotations of *Guang hongmingji* that the original words in the *Guang hongmingji* of Qisgazang are largely in disagreement with headwords listed in enclosed phonetic annotations in very chapter. Besides, the ratio between a amount of space of enclosed phonetic annotations in every chapter of *Guang hongmingji* of Qisgazang is unbalanced. It is known from the statistics that the phonetic annotations enclosed in Qisgazang have provided more than 673 items for the interpretation of the 29th volume of the original *Guang hongmingji* where there are around 19,000 words. While there are only 6 items offered for the 30th volume of the original *Guang hongmingji* which includes more than 13,000. These results indicate that the phonetic annotations enclosed in the *Guang hongmingji* of Qisgazang are the historically accumulated literatures of Buddhist sutras. The phonetic annotations

enclosed in the Qisgazang is of great value for the study of Chinese lexical history, periodical research of phonetic history and previous dynasties of Buddhist sutras system as it tends to absorb from or refer to accomplishments of some Buddhist sutras spread widely at that time. The phonetic annotations enclosed in *Guang hongmingji* of Qisgazang has also provide some valuable information for the discrimination of different versions when the *Guang hongmingji* is proofread. Although the above materials are less than those offered by the Ke hong's *Xin Ji Zang Jing Yin Yi Sui Han Lu*, Even only a few variant materials are worthy of utilizing and analyzing as Qisgazang is an accumulated Buddhist sutras.

The organization and study of variant reference of Buddhist sutras of *Guang hongmingji* make a contribution to the proofreading of languages and characters and the interpretation of *Guang hongmingji*, facilitate to finding and amending of annotation mistakes and transmission failures in the Buddhist sutras, help to the compilation and rectification of China's contemporary voluminous dictionaries such as Grand Chinese Dictionaries and Zhong Hua Zi Hai, which involves in analyzing difficult common word, supplementing missed common words and providing examples for Buddhist sutras, and stimulates the accumulation of materials for the contemporary Chinese character formation and the improvement of the research system of Chinese common words.

The literature contents recorded in *Guang hongmingji* are derived from many sources such as the contents compiled from previous personnels, from references of descendants and from Buddhist sutras contained at the same times. The contents of *Guang hongmingji* are recorded in a variety of works. The variant sutras resulting from the differences of characters arise people's concern. As to other variant versions of *Guang hongmingji*, the detailed information can be seen in the third session of the second chapter of "sources of materials of *Guang hongmingji*" and the thesis catalog of *Guang hongmingji* enclosed in the Research of *Guang hongmingji*, the doctoral dissertation of Liu Linkui (2007).

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On the Image of Kite in *The Kite Runner*

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Abstract: The paper emphasizes the kite as the key image carrying voluminous messages throughout the whole text of *The Kite Runner*. The analyses mainly focus on the narrative and expressive functions of kite's image and reveal a brand-new point of view for the readers to dig out such themes in the novel as change of national spirits and culture, the eternal relationship of betrayal and redemption, and the everlasting fight between human virtues and cruel reality.

Key words: Kite, image, metaphor, symbol

1. Introduction

The Kite Runner is one of the most popular and highly regarded novels in American literature. It is the first novel of Khaled Hosseini — an American novelist and physician of Afghan origin. In his works, in the dreamy world, there are full of love and hate. Ruthless social Changes will call for the eternal human morality. (Robert.,1990)The whole novel reproduces the life of Afghanistan after suffering 30 years, severe social unrest, Individual helpless, uncertain fate, the frailty of human nature and the struggling guilty souls—all of these elements come out flying the kite. The kite reposes the author's yearning for peace and shows deep love for the homeland culture. The kite also urges people to follow the conscience of humanity and loyalty unswervingly and return to the road of redemption.

The Kite Runner tells a story: Amir, born to a rich family, is a young sensitive and studious gentleman. But to Amir's dismay, his father, who is Chivalrous and upright, always don't love him. When the relationship between Amir and his father is in a dead-end situation, Kite competitions have become the last straw. The little servant Hassan born vigorous, was the master of running kite in town. In order to help the young master won the love, Hassan fling caution to the winds to get the falling kites. Faithful Hassan practices his promise but bear ruthless insult. Although cowardly Amir witnesses this unbearable scene, ultimately chooses silence. "On the occasion of the former Soviet Union's invasion of Afghanistan, Amir and his father fled to the United States. Although they are no longer wealthy, fortunately, their relationship was becoming better gradually. Until his father passed away, Amir, not having been able to get rid of conscience struggle, heard this news — Hassan was actually his half-brother." (Li, 2006) Loyal Hassan had been killed by the gun under the Taliban and his son is facing an unexpected future. Finally, Amir plucked up his courage to redeem. Back to the Taliban, under the dictatorship of Afghanistan Amir rescued ill-treated Hassan's son. This is a good way to return to the moral and become a Good man again. There are full of danger, but at least it is a beautiful kite flying in the hope sky.

2. The image and symbol in *the Kite Runner*

In *the Kite Runner*, in recalling the past, a rich full kite image

was depicted through the flat and detailed style. The image of kite produced a striking contrast between the innocent game of flying kites in childhood and a succession of appalling tragedies. The flying kite line alongside the dream wrapped the universal human fear and horror. In suffering and struggle, freedom and beauty, the soul underwent cleansing deeply. A vivid image brings deep human experience. In the whole narrative text, kite is a rich carrier carrying multiple metaphors. The kite fighting and the kite running were the symbol of national brave, and the practice of the individual bravery. The relentless string is a sharp knife which tests the human nature, Cuts people's skin, dissects human conscience and cut the fragile friendship. Moreover, the relentless string cuts irreparable scars. The process of the kite running is the process of pursuing the dream, the process of redemption, and the process of the sublimation mental state.

3. Kite fighting — A game of a brave nation

Kite fighting game is an ancient custom in winter in Afghanistan's traditional culture. Readers can be strongly felt the nation's preference for kites. In Afghanistan, it has the cold climate with strong wind, so kite fighting and the kite running belong to the brave's game.(Li, 2006) In Kabul, fighting kites is a little like going to war. The sky, in which kites are fighting, is like a bloody battlefield. The kites are soldier's weapons. The process of making a kite is to build a weapon. When people are flying kites, their hands are cut by the kite lines like steel wires. The wounds laid by kite lines are like champions' glorious wounds. (Hosseini, 2003)For the main characters, Kite is carrying a father and two sons' yearning and respect for "brave".

Teenagers' enthusiasm for kite fighting is a symbol of the spirit — lively childishness which is full of anger, hope, and joy. This is a kind of tenacious spirit, which resist outside coldness, sick of the flesh and poor life, leaves with the hope of people's life and the society. At the same time, the dark forces in the kite fighting had exposed the bad guys. The unfair competition and brutality among the youth gang, especially Arthur, suggests that the social chaos gradually caused irreversible deformation and distortion of pursuit of the traditional national spirit.

4. The Different Meanings of Kite for the Three Characters

4.1 Father's figure and Kite —Bravery

Amir's father, Baba, is a tall, strong, full of vigor and a good man in the novel, Amir is deeply inspired by Baba's brave behavior, even when Amir rescued Sohrab on the way to Pakistan, the past scene often recurred to his mind. (Hosseini, 2003). Baba is a man of great dignity. In America, He refuses food stamps although he has neither the economic base nor the social standing he once had in Afghanistan. Baba was a gracious man and an admirable character. (Li, 2009). Because Amir realizes that the blue kite is the key to Baba's heart. (Hosseini, 2003), he gets his father's discovery and recognition of his quality "bravery" at the expense of his own conscience. For his bravery showed in the kite fighting, Amir's father also hold a grand birthday party for Amir specifically and invited more than four hundred guests. Apparently, the kite carries parents' strong focus on the quality "bravery". The kite also reflects that Afghanistan advocate the spirit of the traditional value "bravery".

4.2 Amir and Kites — Betrayal and Redemption

The image of kite reflects the little hero, Amir, has a strong desire to pursue the traditional merit "brave". In the novel, Amir seemed to think his father was blaming him for his mother's death, thus he decided to participate in the annual kite tournament in order to earn father's love. Here, the kite symbolizes the protagonist's ideal in his childhood that is earning his father's love. Finally, Amir cut the last blue kite and got the first place in the tournament while Hassan was the very person who would run to get the kite. Amir has a love for literature but does not enjoy politics, business and soccer which are viewed by his father the favorite as three topics and the necessity that a man should possess. Amir discovered there was a way to be the first place in the kite tournament and it might be the best testimony of winning his father's love. Although Amir was born with a weak constitution, he inherited his father's bravery and won in kite fighting. Kites are Metaphor of the Pursuit of Spirit of Redemption. Amir and Hassan fought for whole day; finally, Amir won the tournament. (Li, 2009)

4.3 Hassan and Kites — the Struggle Between Good Characters and Relentless Reality

Hassan inherits his father's brave perfectly. Hassan is nimble; everyone knows that he is *the kite runner* in town. In the novel, although Hassan, suffered prejudice as a Razavi, who has cleft lip and was raised by the servant Ali, He is the person who combines good characters in him and can insist on his good nature in reality. Hassan is an oriental model with loyalty, forbear and sacrifice. The kites which always catch by Hassan in the novel are metaphors of human eternal quality — bravery and loyalty. In the kite tournament, Hassan can always fulfill his commitment to catch the kite --the last drop. But little hero's journey is not always smooth. For the blue kite, Hassan faces the choice of deliver a promise or suffers reproach. Small Hassan eventually choose to endure Assef's rape like a lame, which is beyond human sacrifice and shows Hassan's perfect heroic manhood. Hassan's life is full of frustrations. Hassan lives in the dark and he suffers much. He is too weak and too submissive in his whole

lifetime. Eventually he was executed by the Taliban. However, his presence is the evidence of eternal goodness and true. Hassan died and his partner didn't know, however the living person gets new life. His own miserable and lonely death is the price of redemption of the living. So, Hassan pursues kites; the author remains expectations for humanity regression, new hope in Afghanistan.

Kite Indicate Hassan's Uncertain Life. From the moment of his birth, in his life he is with the unlucky roles to be fated. He is a discriminated hazara, a servant to be ordered, an illegitimate child lack of mother's love, a natural cleft lip and so on. We can say, Hassan is a replica of Quasimodo. Although ugly Hassan was born to a humble family and was cast aside by the people, he was with the good nature of loyalty, courage, self-sacrifice, determination and ability to love with all his heart. Quasimodo gets Spiritual liberation though ringing the Notre Dame de Paris' Bell which can make the city active, and Amir realizes the human dignity temporarily in the kite tournament which can make the whole city excited. People live among those who behave badly with great morality and people suffer much from the real lives, as a result, all human good moral characters are always the same fate — like the kites which fly unstably and finally fell down with a loud crash when their string are broke. (Chen, 2011)

5. Conclusion

A work of art is a symbol rather than a sign, so what it shows to us are emotional images. *The Kite Runner* completed the mission of a work of art. The image of the kite plays an important role in particular, which is throughout the whole story. The image of the kite not only mobilizes elements of conflict, strengthens the effect of conflict, but also helps to shape the characters. The same image of the kite reflexes the different characteristics of different characters like a mirror. The image of kite contributes to the structural integrity of the body, at the same time, further deepens the theme of the work, creates aesthetic on content. The kite, flied by Amir and Hassan, bears emotions and characters. That kite seems to fly in the blue sky over our head, flows in our hearts and lead us to chase our future.

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The Miller's Tale's Secrets: Gnostic Reversals in Chaucer's Take on the Fabliau

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Abstract: This work aims to provide another perspective on Chaucer's "Miller's Tale." Through this perspective, which points toward gnostically-inclined overtones, this essay presents a different type of justice in an eschatologically different world. The sarcasm and irony with which Chaucer infers certain biblical allusions is hard to ignore, and the final outcome of this otherwise humorous tale is also difficult to explain in traditional terms. A close reading of the text seems to reveal a paralleling system, which places the old tradition, embodied by the character of John, in a position of acute spiritual poverty and thus, in sharp contrast with the new and enlightened ways of Nicholas and Alison. The post-lapsarian John is bound by his encroaching ignorance and is thus heading for a second fall, whereas Nicholas and Alison come to appear as a new and improved Adam and Eve, awaiting their second paradise.

Key words: Gnosticism, Miller's Tale, Chaucer, heresy, fabliau, knowledge, revelation, privacy, secret knowledge, *pryvetee*

Geoffrey Chaucer's "The Miller's Tale" garnered various interpretations, from being a mostly harmless, humorous and bawdy Fabliau (e.g., Lewis, 1982; Percy, 1986; Heffernan, 2004) to raising crucial religious questions (e.g., Kaske, 1962; Rowland, 1974; Graybill, 1985; Prior, 1986; Biggs & Howes, 1996; Johnston, 2002; Rhodes, 2013). However, up until the mid-60s, religious references in the Tale didn't seem strong enough, or perhaps, convincing enough to be read as part of a larger scheme. Critics have changed that perspective by exploring the repeated usage of religious parallels, claiming there must have been something more to them than a simple reference. Blamires (2007) argues that "the fabliaux are a form of play which is held to have abounded in the Middle Ages as a flip side to the solemnity of cultural productions sanctioned by church and state, a flip side to Official Culture". In other words, a popularly 'marginalized' form of writing that specifically enables a form of "writing between the lines" (Strauss, 1988). This genre, like other popular medieval genres, sets the stage for a covert subversive strategy, which necessarily emerges in response to the existing dogmatic, institutional and religious limitations. Bourdieu (1999) discusses this idea in similar terms when defining his concept of "state formation". Farrell (1989) adds that "When personal gain comes into conflict with social good [in the Fabliaux], private enterprise always wins out", which religiously speaking would automatically be suspect. However, that is exactly why the Tale seems to escape categorization. As a Fabliau it cannot distribute (and as many scholars have claimed, it has not distributed) a Boethian kind of justice (e.g., Bloomfield, 1971), the notion of the private, privacy and secret knowledge abounds with controversial possibilities, and the various paradoxical, occasionally blasphemous exegetical attempts have all set this Tale apart. Bishop (2002) claims that "Combining confused orifices - holes - and the desire to 'know' in its varied intellectual and bodily meanings with purposeful punning on 'secret' and 'private parts' leads to a blasphemous conclusion - or purposeful lack of conclusion - about God's private parts", which also ultimately places Alison (or at least her genitalia) onto a divine and unknowable pedestal.

In this paper, I intend to take those discussions into another religious dimension that veers away from the traditional. In other

words, through an examination of the characters, the structure and the theme of *pryvetee* (e.g., Farrell, 1989; Fernandez, 2006), I propose a different reading that highlights possibly heretic tendencies, which upon closer inspection can be described as being of gnostic character. To be clear, "Gnosticism" (with a capital G) is a broad term that refers to a historical phenomenon, a religious, generally dualistic movement that existed approximately between the first and fourth centuries, and perceived the material world as an evil imprisoning the purity of the soul, which could be revived through the regaining of knowledge (i.e., gnosis) (e.g., Jonas, 1963; Filoramo, 1992). Formally, this phenomenon was abolished by the Orthodox Church as early as the fourth century. Nevertheless, some scholars claim that certain Gnostic elements remained a part of Christianity, some in forms that are judged "orthodox" and others "heretical." In this work, as I am not discussing a resurgence of the Gnostic 'religion' but rather gnostic ideas that derive from the obsolete movement and have influenced the orthodox perspective, the elements analyzed shall be referred to as "gnostic" (with a lower case g).

At the center of this debate lies the question of judgment; is anyone truly judged and punished in the tale? Who and according to which scheme? These questions may be answered if we examine a certain balancing system depicted in the Tale, which is based on a series of seemingly 'unnatural reversals,' where there is an intermingling of the concepts of the holy and the profane, the accepted and unaccepted, the natural and unnatural, the center and the margins, resulting in a sense of chaos, but ultimately culminating in a promise of salvation. The Tale presents four characters; two traditional, orthodox believers and two traditionally labeled "sinners." In this discussion, I would like to suggest that the scales tilt in favor of the two "sinners," thus strengthening the manifold interpretations which assert Chaucer's parodying of the church in an otherwise seemingly innocent and frivolous fabliau. Douglas (1975) believes there is characteristically some "subversive" potential in a joke. She asserts that it remains "frivolous in that it produces no real alternative to official values, just a brief sense of freedom from form in general". But if the Fabliau is like an extended joke, subversive writing may make its presence known in a manner which indeed

produces a real, albeit marginalized, alternative. In a way, hiding the 'truth' in plain sight.

As mentioned above, the fabliau is reframed in "The Miller's Tale," with more depth and sophistication than the French tales of the same genre. The use of irony, and fresh, crude humor, have brought about various examinations and raised many questions with regard to the tale's possible commentary on such issues as the corruption of the church, but also questions on a larger scale - universal good and evil, the orthodox Christian doctrine and the underlying possibility of heretical aspects. The sarcasm and irony with which Chaucer infers certain biblical allusions is hard to ignore, as I will discuss them later, and the final outcome of this otherwise humoristic tale, in which John is publicly humiliated and ridiculed while Nicholas seems to "get away with it," is also difficult to explain, under traditional circumstances. Biggs and Howes (1996) claim that everyone receives their due punishment by the end of the tale except for Alison. Alison "presents the most obvious problem to the theme of [divine] justice, since she remains unpunished even though she performs the same actions as Nicholas. Thus an eschatological perspective fails to resolve the tale into a coherent theological statement". However, as I will try to point out, she, alongside Nicholas, remains unpunished for a reason. At the end of the tale, they come out on top since they possess a certain knowledge that goes beyond the boundaries of this world. Together, they are a force to be reckoned with, a force that easily outmaneuvers the traditional and often ridiculed simplistic ways of the orthodox John. At first glance, Nicholas seems to be portrayed as cunning, smarmy and in the possession of evil ways - learned in astrology, astronomy and other secret knowledge. He sets his sights on Alison, the beautiful, young wife of the good and innocent John, whose only apparent fault lies in his jealousy over Alison, or rather in his poor choice of a much younger wife. However, things are not quite as they seem. From the very beginning, from the very names of the characters, there seems to be something amiss.

John is a carpenter, a fact given to us very early in the tale; "Whilom ther was dwellynge at Oxenford [...] / a carpenter" (l. 3187-89), which may be perceived as an allusion to Jesus, who is referred to as a carpenter in the Gospel of Mark. Moreover, he is named John, possibly a reference to either John the Baptist, or to one of Christ's disciples, who in his Gospel, defined Jesus' earthly life as the Logos incarnate, a theological presentation of him that intricately connects his earthly form with his divine mission. As names in the middle ages had figurative significance (e.g., Hanning, 1968; Weever, 1995), these specific choices create an immediate link between his character and the church. But "He knew nat catoun, for his wit was rude, / That bad man sholde wedde his simylytude./ Men sholde wedden after hire estaat, / For youthe and elde is often at debaat" (l. 3227-3230). We are told John did not know his Cato, some of the most popular elementary textbooks in schools during the early Middle Ages and beyond. They were prized not only as a means of teaching Latin but as a repository of valuable moral advice. And then he is described as "bad", or as the MED (2011) defines it: evil; of inferior quality; unattractive; distasteful; inadequate. John is the classic senex amans - a stock character of an old jealous man married to a young woman and thus often the object of mockery. But the mockery doesn't seem to end there; he is not only inferior to Alison due to his age, but his knowledge or lack thereof is also scrutinized and questioned. Strangely enough, he is also labeled as

"evil" when for all intents and purposes he is labeled as the "victim" - the cuckold husband.

The second character is Absolon, an amorous parish clerk, who is more interested in wooing ladies than in his church duties, again a direct comment on the church. The name is a variant of the Hebrew name Absalom, which was a biblical character known for his rebellion against King David (his father) and his subsequent death. Chaucer's Absolon is much like John, a parody of his historical namesake. Whereas the biblical Absalom rebelled against his father by murdering his brother, Amnon, in the name of avenging his sister's honor, Absolon seeks to "avenge" a slight caused at the hands of the rambunctious Alison and her very much consenting lover, Nicholas. Absolon's attempts at wooing Alison constantly fall short and result in nothing but "scorn. / And thus she maketh absolon hire ape, / And al his ernest turneth til a jape." (l. 3388-3390). Towards the end of the Tale, after Absolon is most degraded by Alison, he commits his "soule [...] unto Sathanas" (l. 3750). He entrusts his soul to Satan as he swears to avenge the insult he has suffered, claiming "But me were levere than al this toun. / Of this despyt awroken for to be. / Allas, quod he, allas, I ne hadde ybleynt!" (l. 3751-53). While he is literally lamenting that he had not moved out of the way and avoided the insult, he himself is misled in this instance. His foolish nature misreads the situation as he swears ultimate vengeance, ironically believing himself to be the true possessor of knowledge and the one who shall outlive all others. However, the tale seems to have other plans, as the word "levere" may be understood in two opposing ways; either as "one who lives righteously" or "one who lives wickedly," intermingling and intertwining the two meanings. Absolon, much like John, does not have the upper hand, and though he believes he is living "righteously," his actions, fallacy, and ultimate punishment indicate otherwise. Further on, as he takes his revenge, it is also treated as a joke since when he comes to burn Alison with "his iren hoot," (l. 3809) he is treated to a comedic turn of events played on by Nicholas who sticks out his "ers" (l. 3810) in Alison's stead and "leet fle a fart, / As greet as it had been a thonder-dent" (l. 3806-7). Ironically, the moment in which Absolon "gets his revenge" by burning Nicholas, it is also the moment that propels the humiliation and fall of his "fellow false believer," John. It seems the physical world, the world of fleshly desires and sins is too overpowering. Both John and Absolon are bound by envy and pride respectively, two of the seven deadly sins first enacted by Lucifer himself, unlike Nicholas and Alison, who seem to be beyond that. Their tryst has no transcendent meaning. Their physical coupling is just that, physical. They are not bound by physicality, they are not pushed to any limits (unlike John and Absolon), and are apparently in possession of a different type of redeeming knowledge, which provides them with a superior position, above the others. After Nicholas reveals his "secret" to John (about the second flood), John "to his wyf he tolde his pryvetee, / And she was war, and knew it bet than he, / What al this queynte cast was for to seye" (l. 3603-05). Not only does she possess awareness but she also has more knowledge than he does.

Alison is named much like another character in Chaucer's Canterbury Tales, Alison, the wife of Bath. That Alison is quite infamous for her "forward" thinking and knowledgeable ways. And just like the other Alison, "The Miller's Tale's" Alison learns to make the best of her earthly existence. She has a central role in both Tales, and though this Alison is much less developed than Alison of Bath,

her depicted characteristics ring a bell of familiarity. Nonetheless, in this tale, she serves as a proper "team member" on the side of Nicholas. Together, they depict a new and different way of thinking – a new, equal Adam and Eve, if you like. Interestingly, women occupied a privileged place in gnostic communities (Filoramo, 1992). Their coupling enables the rousing of knowledge that traditionally shouldn't have been sought.

Nicholas, whose name comes from the Greek, meaning "victorious people," is suitably named since indeed he is quite victorious in this tale. His name may also refer to Saint Nicholas, reputable for his habit of secret gift-giving, again bringing up the issue of secrets and secrecy. Indeed, Nicholas is a gift-giver, propelling Alison into knowledge with his purposeful guidance, while taking both John and Absolon down a notch by teaching them a lesson as well; for "many are called but few are chosen" (Matthew 22:14). Nicholas is "a poure scoler, [...] / but al his fantasye / Was turned for to lerne astrology" (l. 3190-92). He knew of secret love and satisfaction (l. 3200), and would play on his musical instrument, "a-nyghtes melodie [...] / And *Angelus ad virginem* he song" (emphasis added, l. 3213-16). This song was a popular medieval carol sung about the Annunciation. The fact that it is Nicholas who sings it, immediately following his statement of devotion to astrology and other sources of celestial knowledge, automatically makes it suspect. Only later when we learn of his cunning character and ways do we realize the irony behind such a statement. Nicholas is clearly no angel, and Alison is clearly no Virgin Mary. But I believe the Annunciation is appropriate since there is a symbolic message of salvation within the tale, one that does not conform to the orthodox apocalyptic one, but one that presents the possibility of immediate and earthly deliverance.

The issue of secrecy, secrets and the uncovering of them creates a tangled web of inversions in which a different type of justice emerges. "The description of Nicholas putting his *ers* out of the window *pryvely* (l. 3802) provides a final reference to a theme dominant in the tale, that of *pryvetee*: from its first appearance in the memorable couplet in the Miller's Prologue (l. 3163-4), Chaucer uses the term to refer both to human genitalia and to divine secrets. Because Nicholas's action so obviously invokes the first of these meanings, one must at least consider the possibility that it comments on the second as well" (Biggs & Howes, 1996). According to Biggs and Howes (1996), the scenes using this wordplay (on the word *pryvetee*) allude to Exodus, albeit in a lewd, perhaps perverse manner, and it is through these allusions that the tale discusses matters regarding "the limits of human knowledge, primarily of God but also of other humans". Furthermore, "because the Christian Latin writers link the theophany to the end of time, recognizing the allusion helps to establish a different perspective on the events that conclude the tale". In the end, neither Alison nor Nicholas seem to be punished for their deeds, rather they appear somehow triumphant. This is a triumph of knowledge. Even though Nicholas is burned by Absolon's "ire," his "suffering" is not nearly as profound as that of John, or even Absolon himself, as depicted above. Both Absolon and John must deal with mortal ridicule and overall hellish consequences in the face of spiritual awakening. Thus, if the characters exist on different levels, they cannot be judged according to similar standards.

John, if we look beyond the innocent, simple façade of his portrayal, is best described as ignorant. He didn't know his Cato

because he had never been to school. As the tale progresses, he becomes more and more of a laughing stock as Nicholas' plan forms, for blindly following his faith and lack of knowledge. He is a simple man, but not necessarily in the "good" sense of the word. He is lacking, and the knowledge he lacks places him in a lesser position in comparison to Nicholas, the studious clerk, who is interested in learning the secrets of the universe. Nicholas is young and fresh, while John is old and decrepit, and quite obviously wrong for Alison. Even if he were to be given a chance, being portrayed as the poor, righteous cuckold, he is immediately "punished" due to his ignorant comment regarding Nicholas' passion for learning; "This man is falle, with his astromye, / In some woodnesse or in som agonye. [...] / Men sholde nat knowe of Goddes pryvetee" (l. 3451-54). However, the joke is on him since he is the one ridiculed and deemed mad by the end of the tale. We are told, "'a clerk hadde litherly biset his whyle, / But if he koude a carpenter bigyle'" (l. 3299-3300). In gnosticism, knowledge is superior to and independent of faith, and here, John's blind "faith" or rude knowledge is obviously inadequate as he is very easily duped by Nicholas' less than elaborate scheme and ends up hurt, publicly shamed, and an outcast. The mockery continues when John remembers a tale about

Another clerk with astromye;
He walked in the feeldes for to pryve
Upon the sterres, what ther sholde bifalle,
Til he was in a marle-pit yfalle; (l. 3457-3460)

Again, we have a reversal since by the end of the tale the one to fall is John while Nicholas stands tall above him. John feels righteous, almost indignant watching Nicholas in his stupor, and he exclaims, "He shal be rated of his studyng, / If that I may, by Jhesus, hevене kyng!" (l. 3463-64), but rather he is the one who is scolded for his lack of studying. His position is literally and metaphorically reprised by this new type of messenger.

Furthermore, throughout the tale, we are repeatedly told that Nicholas is gazing upwards: "Nicholas sat evere capyng upright, / As he had kiked on the newe moone" (l. 3444-45). John is the one trying to veer him from his path by telling him, "'What! Nicholay! What, how! What, looke adoun!'" (emphasis added, l. 3477). John is repeatedly reported to be looking down, and his final fall with the tub is not only for humor's sake, it is rather a representative moment which parallels the very first fall, that of Lucifer consequent to his pride. He is doomed to failure just as he is doomed to be fooled. In a gnostic scheme, knowledge surpasses faith, as exemplified by Nicholas and John respectively. Absolon is also part of this scheme. In this balancing system the two characters of Nicholas and Alison are countered by the two characters of John and Absolon. I believe both Alison and Absolon serve as foils to their "leading men." When Nicholas decides to teach the persistent Absolon a lesson, his outwardly vulgar action may be interpreted as symbolic commentary regarding the perspective both John and Absolon represent, as being completely worthless.

While Biggs and Howes (1996) believe that "neither [John nor Nicholas] turns out to be worthy of reward", I believe the rest of the tale, and especially the ending, indicate differently. They further claim that it is Chaucer's way "to develop – albeit negatively – the question of how humans can and should know God" with the end result being that neither way is valid or acceptable. In this sense, they seem to claim that the Tale lacks any real justice, that it is actually a warning against passing any type of judgment. Emerson

(1993) argues that "The drunken Miller, in order to 'quite' the Knight's account of Theseus' speculations on the 'Firste Moevere' and providence, discourses ceremoniously on the foolishness of delving into 'Goddess pryvetee,' viewing the entire Tale as a condemnation of such speculation". While I agree to the extent that passing a quick judgment would be wrong, I believe the Tale presents certain evidence that cannot be ignored. Seeking out the secrets, or rather the secret knowledge Nicholas seems to possess is not the point, rather the fact that he is in possession of something that raises him above John, that leaves him and Alison for all intents and purposes unscathed, becomes central. "Justice," in the traditional sense, is not delivered since Alison, who did the exact same thing as Nicholas, is completely spared. Rather it is the two counterparts – John and Absolon – who seem to be on the receiving end of this "new" judicial system. In the final scene, when John yells out, "Allas, now comth Nowelis flood!" (l. 3818), he confuses Nowell (Christmas) with Noah. Christmas is a symbol of salvation in birth, the beginning of a new era, while Noah and the Flood are symbols of salvation and regeneration through death. In this scene of juxtaposition the orthodox and the gnostic seem to come full circle. The boundaries, traditionally set between orthodoxy and heresy seem to have crumbled as there is a reversal of life and death with the similar consequence of salvation. No one is really saved yet, but Nicholas and Alison are on their way. They are the new Adam and Eve, the knowledgeable, receptive, self aware souls, ready for the next stage, ready to regain paradise.

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A Diagnosis Method of Breaking Points in Grounding Grids Based on Co-Simulation of MATLAB and COMSOL

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Abstract: In order to diagnose breakpoints of grounding grids effectively, the paper proposes a diagnosis method based on co-simulation of MATLAB and COMSOL. The COMSOL was used to simulate and model the grounding grids, and the model was saved as M-file. When the pulse signals in transmitting coil ramp off suddenly, the transient electromagnetic response signal in grounding grids can be calculated in the COMSOL with MATLAB. It uses smoke ring theory of transient electromagnetic method to calculate the apparent resistivity of grounding grids model. And the profile of apparent resistivity is obtained by the mapping function of surfer. The differences between the apparent resistivity cross-section diagrams of grounding grid show that the method is feasible.

Key words: Breaking points diagnosis, grounding grids, COMSOL, MATLAB, Transient electromagnetic method

1. Background

The grounding grids play an important role in operation stability of power system and safety of operators. In China, the grounding grids are mainly made of flat and round steel materials, which is so easily corroded that it becomes thinner to crack. When the system has short-circuit faults or been struck by lightning, the fault current can't be rapid discharged, which endangers the safety of equipment and people. Therefore, we study a method that isn't limited by the conditions of operating sites. Diagnosis breaking points of grounding grids is a hot topic in grounding grids detection technology.

Recently, international and domestic academics' research orientations mainly include two categories. (1) One is the electric network method based on the theory of circuit which takes the grounding network as simple resistance network, and finds the breakpoint by measuring the voltage or the resistance between the grounding leads. However, the voltage and the resistance will sometimes be normal even the breakpoint or the corrosion exists. Therefore this approach often fails. (2) The other one is the method based on the theory of the electromagnetic field. F.D Awalibi, a Canadian scholar, puts forward the method from the theory of electromagnetic field to analyze the breakpoint condition in the grounding network. Liu Yang and Cui Xiang et al. from the North China Electric Power University make a further research on it. They inject the harmonic current motivation with a certain frequency and amplitude from the guide body to the grounding network. By measuring the surface distribution of the magnetic field, they detect the breakpoint or the corrosion of the grounding network and learn that its underground distribution. However, the value of the magnetic

field at a measurement point relates to the distance from the current injection point, and it will influence the judgment of grounding systems. Fu Zhihong, et al. from the Chongqing university propose to adopt the apparent resistivity imaging by the transient electromagnetic method to the breakpoint diagnosis of the grounding network, but they haven't done any study on the diagnosis of the corrosion degree.

The paper researches the diagnosis method based on co-simulation of MATLAB and COMSOL. It used COMSOL to simulate and model the grounding grids, and the model was saved as M-file. When the pulse signals in transmitting coil ramp off suddenly, the transient electromagnetic response signal in grounding grids can be calculated in the COMSOL with MATLAB. It uses smoke ring theory of transient electromagnetic method to calculate the apparent resistivity of grounding grids model. After apparent resistivity inversion and imaging, the break point fault can be diagnosed directly from the image. The paper compared the apparent resistivity cross-section diagrams of grounding grid obtained in different conditions of the grounding grids, including in good condition and with middle breakpoint, and the differences between the diagrams verifies the effectiveness of this method.

2. Smoke Ring Inversion Theory

According to Transient Electromagnetic Method (TEM), with the central loop device, when there are excitation currents of step wave with the value of I in transmitter coil, the vertical component B_z of magnetic induction intensity at the surface of the homogeneous half-space is:

$$B_z = \frac{I\mu_0}{2a} \left[\frac{3}{\sqrt{\pi u}} e^{-u^2} + \left(1 - \frac{3}{2u^2}\right) \text{erf}(u) \right] \quad (1)$$

Fund: Research on Electric Power Research Institute of Jilin Province, Research on corrosion nondestructive detection technology and safety condition evaluation method of grounding grids.

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Where a is the radius of transmitter coil, μ_0 is the vacuum permeability (its approximation is $4\pi \times 10^{-7} \text{H/m}$), error function $\text{erf}(u)$ and parameters of transient field are as follows:

$$\text{erf}(u) = \frac{2}{\sqrt{\pi}} \int_0^u e^{-t^2} dt \quad (2)$$

$$u = \sqrt{\frac{\mu_0 \sigma a^2}{4t}} \quad (3)$$

Where σ is the conductivity of homogeneous half space, t is the delay time after the step excitation current is shut, that is to say, it's a time parameter which counts from the shutting-off moment of step excitation current.

The formula of the apparent resistivity of whole area is:

$$\rho_s = \frac{a^2 \mu_0}{4tu^2} \quad (4)$$

According to the loop theory, the formulas of vertical depth D and vertical velocity v are as follows:

$$D = 4 \sqrt{\frac{t \rho_s}{\pi \mu_0}} \quad (5)$$

$$v = 2 \sqrt{\frac{\rho_r}{\pi \mu_0 t}} \quad (6)$$

where μ_0 is the vacuum permeability, ρ_s is the apparent resistivity of whole area, ρ_r is the medium resistivity, t is a time parameter that counts from the shutting-off moment of step excitation current.

For apparent resistivity values of adjacent time trajectories, we use difference approximation to calculate the velocity of propagation between two time, that is

$$v = \frac{\Delta D}{\Delta t} \approx \frac{D_j - D_i}{t_j - t_i} = \frac{4}{\sqrt{\pi \mu_0}} \left(\frac{\sqrt{t_j \rho_{sj}} - \sqrt{t_i \rho_{si}}}{t_j - t_i} \right) \quad (7)$$

where t_i and t_j is the sampling time for two adjacent measuring trajectories (and $t_j > t_i$), D_i and D_j are the vertical depths of t_i and t_j respectively, ρ_{si} and ρ_{sj} are the apparent resistivity values of t_i and t_j respectively.

After substituting eq.(7) into eq.(6), we can get a resembled resistivity value of loop inversion, which is

$$\rho_r = \frac{v^2 \pi \mu_0}{4} = 4 \left(\frac{\sqrt{t_j \rho_{sj}} - \sqrt{t_i \rho_{si}}}{t_j - t_i} \right)^2 t_{ji} \quad (8)$$

where t_{ji} is the average number of t_i and t_j .

At the moment, the corresponding inversion depth of the resistivity ρ_r is

$$H_r = 0.441 \frac{D_i + D_j}{2} \quad (9)$$

where 0.441 is an empirical coefficient.

3. Co-simulation of MATLAB and COMSOL

COMSOL is a large high-level numerical simulation software, widely used in various fields of science and engineering calculations. For some practical problems, using COMSOL to simulate is clearly more easily than using the MATLAB, but the optimized data process capacity of COMSOL is weaker than the capacity of MATLAB. The co-simulation of MATLAB and

COMSOL combines the powerful Finite Element Method abilities of COMSOL with the versatile programming environment of MATLAB, so this paper used co-simulation of MATLAB and COMSOL to diagnose breakpoints of grounding grids.

The COMSOL was used to simulate and model the grounding grids, and the model was saved into M-file. The M-file of the model of the grounding grids from COMSOL was exported to run in the COMSOL with MATLAB. We can modify the model MATLAB file and extend it with MATLAB code. The results are easy to obtain thanks to the following procedure

```
mphgeom(model,'geom1');
mphmesh(model,'mesh1');
mphplot(model,'pg1');
str = mphtable(model,'tbl1');
tbl_data = str.data;
```

4. Analysis Example of Co-simulation

The model of the grounding grids from COMSOL is shown in figure 1. The modeling setup is as follows: the lower space size is $60\text{m} \times 30\text{m} \times 30\text{m}$, which simulates the homogeneous half space (i.e., soil), where the conductivity is 0.02S/m . The upper space is $60\text{m} \times 30\text{m} \times 30\text{m}$, which simulates the air, where the conductivity is 0.000001S/m . Grounding grids model is shown in figure 2, it's 5m wide, 10m long and 0.8m underground. Its material is steel, of which the conductivity is $4.032 \times 10^6 \text{S/m}$. Transmitter coil is located in the ground with the radius of 1.8m . The amplitude of step currents is 200A , and cut-off time is set at the sampling moment 0. The sampling interval is $0.1 \mu\text{s}$ and the sampling time is $10 \mu\text{s}$.

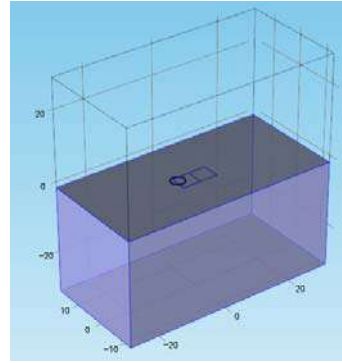


Fig.1 The simulation model of grounding grids

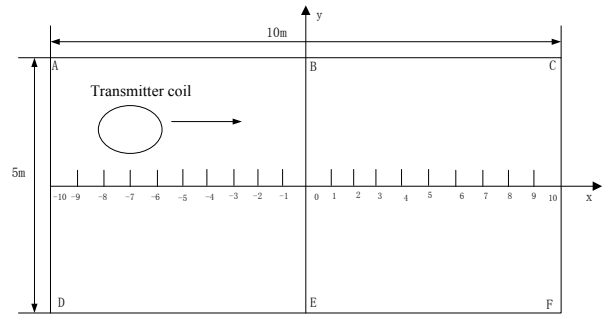
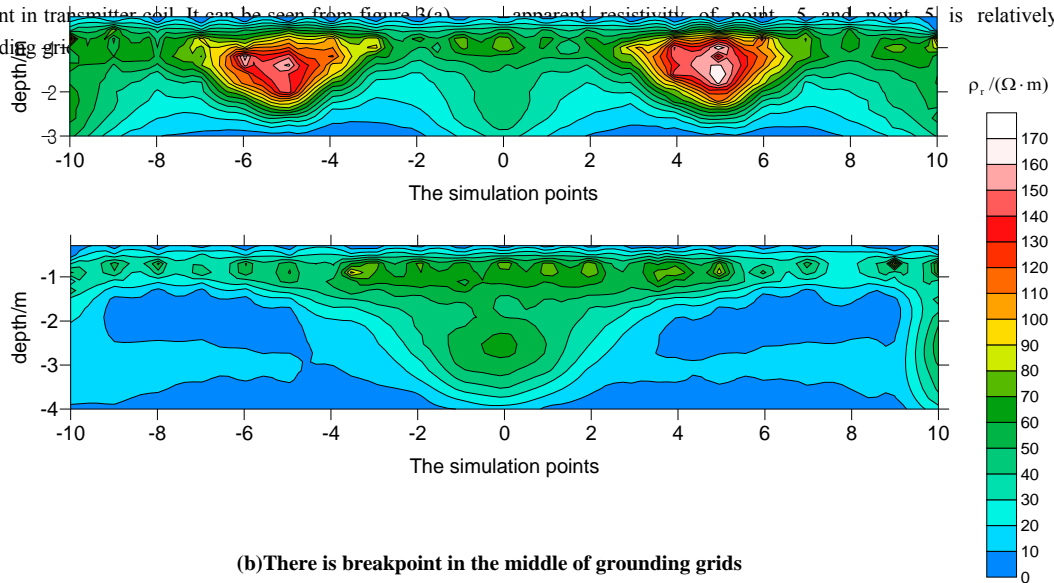


Fig.2 The relationship of relative position between ground grids and transmitter coil

When the center of transmitting coil (that is the measuring point location) is located at the center line of the grounding grids, the relative position relationship between the grounding grids and the transmitter coil is shown in figure 2. Make simulation of the transient response HZ with the grounding grids in good condition and BE break respectively. For the positions and quantity of simulation points, it can be set by modifying the script file to add a for-loop. In this paper, 21 simulation points are set (the grounding grids is respectively -10 to 10 from left to right and the center line is 0), and the interval between adjacent simulation points is 0.5m. Results of simulation and inversion calculation are shown in figure 3.

When the grounding grid is in different conditions, eddy field in the grounding grid is also different with the shut-off of step excitation current in transmitter coil. It can be seen from figure 3(a) when the grounding grid



(b) There is breakpoint in the middle of grounding grids

Fig.3 Comparison of the apparent resistivity profiles

5. Conclusion

In this paper, a method based on co-simulation of MATLAB and COMSOL is applied for diagnosing breakpoints in grounding grids. To obtain the cross-section diagrams of the apparent resistivity when the grounding grids is in good condition and when there is a breakpoint in the grounding grids, we introduce the smoke ring inversion theory of transient electromagnetic method to calculate. Through the comparison of the the cross-section diagrams, we can confirm the feasibility of the suggested method for breakpoint diagnosis.

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loops in ADEB, BEFC and ADFC. When measuring points are located at point -5 and point 5, eddy currents are the strongest in ADEB and BEFC respectively. So the apparent resistivity of point -5 and point 5 is the highest. When measuring point is located at point 0, directions of eddy currents in the ADEB, BEFC and ADFC are the same, so the magnitude of currents in the grounding grid BE generated by two eddy current loops ADEB and BEFC is equal in opposite directions. Thus the apparent resistivity of point 0 is relatively low resistance, comparing with point -5 and point 5.

It can be seen from figure 3(b) that, when the middle of grounding grids (BE) breaks, it will only generate an eddy current loop in ADFC, the eddy current in ADFC is the strongest when the location is at point 0, so the apparent resistivity of point 0 is the highest. There are no eddy current loops in ADEB and BEFC, so the

apparent resistivity of point -5 and point 5 is relatively low

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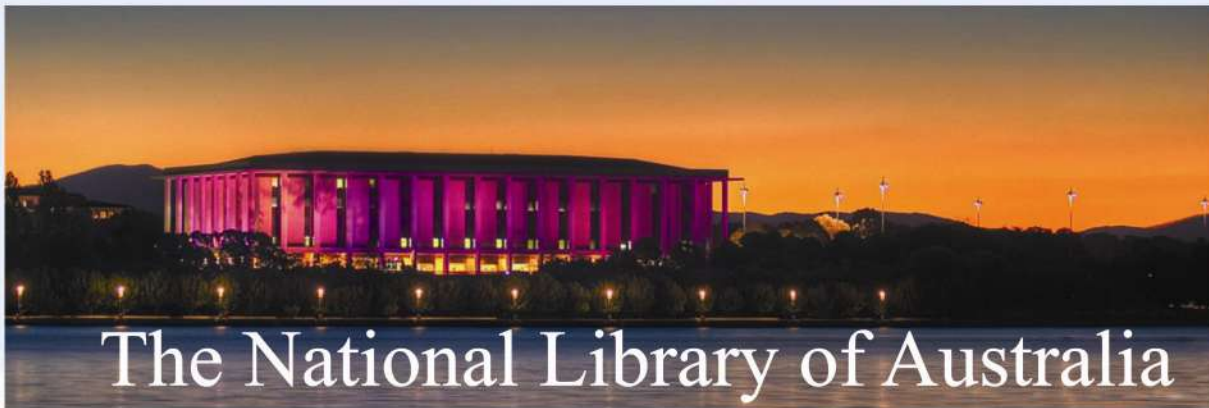
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AUSSIE-SINO STUDIES
Volume 2, Issue 3, 2016
Published on June 28, 2016

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