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JOURNAL OF INTERNATIONAL BUSINESS RESEARCH

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LETTER FROM THE EDITORS

It is with great pleasure that we welcome you to this Special Issue of the *Journal of International Business Research*, a journal published by the Allied Academies to support the exchange of ideas and insights in International Business.

This issue features the best papers from those presented at the *Hanoi 2008 International Conference on Business, Economics and Information Technology* on the theme of *"Doing Business in the Global Economy: Economic, Political, Social and Cultural Environments Facing Business."* Founded on a very simple idea, that there is so much we can learn from each other, the conference provided an opportunity for academicians, researchers, students, and representatives from industry and government to get together and exchange ideas in the spirit of scholarship and professional growth.

We thank the University of Guam's School of Business and Public Administration, Penn State Altoona's Division of Business and Engineering, Alfred University's College of Business, and the Vietnam National University's Hanoi School of Business for their support of this Conference and the publication of this journal issue. We are also grateful to the Academy for providing us with the outlet by which we can share our scholarly efforts with those interested in the study of International Business.

Consistent with the editorial practice of the Academy on all of the journals it publishes, each paper in this issue has undergone a double-blind, peer-review process.

This issue includes papers by authors from nine different countries and thus reflects the international reach of Allied Academies.

Information about the Allied Academies, the *JIBR*, and the other journals published by the Academy, as well as calls for conferences, are published on its website. In addition, the website displays the latest activities of the organization. Please visit the site and know that the Academy welcomes hearing from you at any time, as do we.

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REGIONAL INTEGRATION AND ECONOMIC GROWTH IN THE LONG RUN: A COMPARATIVE CASE STUDY OF VIETNAM AND MEXICO IN THE ASIA-PACIFIC REGION

Thi Lan Huong Bui, University of Economics of HoChiMinh City

ABSTRACT

The decade of 1990s witnessed a great number of regional trade agreements in various parts of the world that was called the "second wave of regionalism" or "new regionalism." The enlargement of the EU to countries from Central and Eastern Europe, the creation of NAFTA and AFTA illustrate this phenomenon. One of the most striking characteristic of new regionalism is economic integration between developed and developing countries to become much more credible in the eyes of foreign investors in the race to attract foreign direct investment, a key factor contributing to long-run economic growth. The experiences of the two countries Mexico linked to NAFTA and Vietnam integrated to ASEAN serves an interesting case of new regionalism.

This paper compares and contrasts trade and FDI patterns of Mexico and Vietnam in the long run by the gravity model, and discusses issues that developing members Mexico and Vietnam have faced while involved in an asymmetric trade agreement. It will help Vietnamese policy makers to learn lessons from Mexico, member of NAFTA, with more than ten years of experience, as it provides a good example for Vietnam to handle both regional and global issues.

INTRODUCTION

The decade of 1990s marked an expansion of regional trade agreements in various parts of the world that was called the "second wave of regionalism" or "new regionalism." The enlargement of the EU to countries from Central and Eastern Europe, the creation of NAFTA and MERCOSUR, and the regrouping of all countries in South-East Asia along with the AFTA project illustrate this phenomenon. APEC appears, among other regional agreements, an interesting case since it is not a formal trade agreement but a "community" formed by a diverse group of developing and advanced economy members with the common interest of promoting trade and investment. Many countries that integrated in APEC are members of other sub-regional blocs like ASEAN and NAFTA. Therefore, APEC provides a useful alternative to the EU as a new way to pursue regional economic integration called "open regionalism."

One of specific characteristics of new regionalism scheme is economic integration between developed partners or blocs and developing countries (called North-South integration) that have recently made, or are making, significant unilateral reforms. Many developing and transition economies have been involved in the process of reforming their economic policies and their governance system. This differs radically from the first wave of regionalism or "old regionalism," which involved countries with similar level of development called North-North or South-South integration during the 1960s and 1970s. In this changing context, a great number of developing countries have had a strong interest to link to developed countries in the same region in order to seek an institutional shelter that had been already well-established and achieved credibility in the eyes of foreign investors in the race to attract foreign direct investment, a key variable contributing to long-run economic growth. Despite the broader gap of economic development between Mexico and NAFTA compared with that of Vietnam and more advanced ASEAN partners, experiences of both illustrate such a new regionalism theory considering economic integration as an endogenous factor.

Despite the hypothesis of growth and trade creation in well-known regional blocs like EU, NAFTA, or ASEAN has been tested by many authors, the impact of free trade agreements on developing countries are examined less, especially in an international comparison. This paper examines the possible linkage between trade liberalisation and economic growth of Vietnam and Mexico during the last decade by adopting a comparative study of their trade and FDI patterns in the long run by testing their natural trade structure with the gravity model. Furthermore, it suggests lessons learned from the experience of new regionalism initiated by Ethier (1998) focussing on the asymmetric relationship between developed and developing partners participating in a regional trading bloc and suggests how regional cooperation helps these developing members face the challenge of globalisation.

This paper is structured as follows. Part I presents a brief concept of new regionalism initiate by Ethier (1998). Part II focuses on trade and FDI patterns of Mexico and Vietnam in the long run. It analyzes the evolution of trade relations of Mexico and Vietnam in the regional environment during the last decades. Part III estimates the natural structure of trade of Mexico and Vietnam in the context of the Asia-Pacific region. Part IV discusses issues that Mexico and Vietnam have faced while involved in an asymmetric trade agreement.

THE CONCEPT OF NEW REGIONALISM

The traditional theory of economic integration started with the paradigm of Viner (1950), accounting the net effect of trade creation and trade diversion in a world composed of a protectionist bloc and the rest of the world. Later on, this conceptualization evolved to a world composed of several "natural" blocs with the acknowledgement of transport costs. The natural trading bloc model concludes on the possibility of improving partners' welfare without worrying about the possible deterioration of the rest of the world. One of the searches for an arbitrage opportunity between

regional and global welfare reside in a radically different treatment of new regionalism. At a reverse of trading protectionist blocs, new regionalism encourages the development of the multilateral trading system. The "old regionalism" regroups countries with similar level of development. In contrast, "new regionalism" is characterized by an asymmetric level of development among members, in the context of outward policies (Ethier, 1998). Thus, the key defining difference between the new regionalism and old regionalism occurred in the 1950s and the 1960s is the policy environment. The policy framework encircling the old one in developing countries involved an inward looking and protectionist, state-led import substitution strategy. Meanwhile, the new regionalism is inserted into a framework of policy reform that promotes open and competitive private market-based economies (Toh Mun Heng, Gayathri, 2004).

The main arguments suggested by Ethier comprise several components that give a crucial role to the success of post-war multilateralism, the role of direct investment, and policy reform in many countries. They include:

1. Small country participants in regional arrangements have embarked on programs of policy reform intended, at least in part, to enhance the role of international trade;
2. Direct investment has been surging since the late 1980s;
3. Reforming countries anxious to join the multilateral trading system as soon as possible see the attraction of FDI as a key step;
4. Attracting FDI requires making the country attractive relative to other, similar potential hosts, not relative to source countries;
5. Regional arrangements can give a small country a marginal advantage, over other similar, small countries in attracting FDI because they obtain marginally more favorable access to a large market than other nonparticipating small countries;
6. The regional arrangements help spread the benefits of the multilateral trading system around the globe and enhance its value to all participants, thereby reinforcing, rather than undermining, support for multilateralism.

In the literature of new regionalism, trade theorists are not only interested in the contribution of regional blocs to welfare, but also their impact on the global trade system. The economic integration model constructed by Ethier suggests that new regionalism is, in good part, a direct result of the success of multilateral liberalization. Also, regionalism is the means by which new countries trying to enter the multilateral system compete among themselves for the direct investment necessary for their successful participation in that system. This approach suggests that a North-South integration can help developing countries improve credibility with respect to their economic policies and that will attract increased flows of FDI.

Economic Performance of Vietnam and Mexico

Mexico and Vietnam are located at the two sides of the Asia-Pacific rim. Despite the geographical distance, these two countries perform in the most dynamic region in the world. Being less advanced countries in the early 1980s, they developed their economy by producing raw materials mainly mining and agricultural products. In the 1990s Both Mexico and Vietnam decided to launch unilateral economic reforms and adopted gradual liberalization of trade and investment in the 1990s that improved substantially their economic performance. The comparison of trade and FDI patterns of these two countries illustrates not only remarkable successes but also unsolved issues during their trade liberalization process.

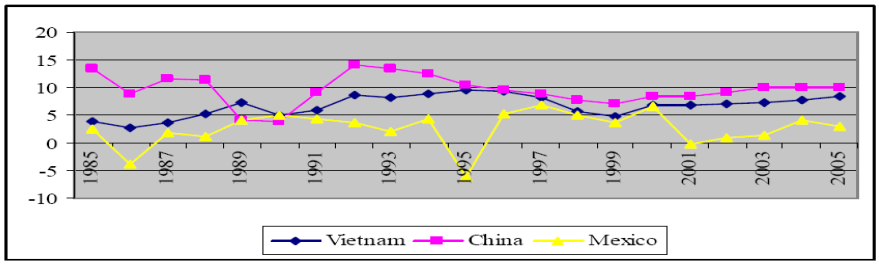
In the last decade of the 20th century, Mexico, considered a developing member in NAFTA, became the top trading nation in Latin America and the ninth largest economy in the world. Mexico, if compared with ASEAN economies, is one of the most advanced countries in ASEAN with GDP per capita greater than Malaysia, the third richest economy in ASEAN and five times compared with the average of ASEAN (US$1, 266 in 2003). Exports account for more than US$ 150,000 billion, equivalent to those of Singapore, the most advanced economy in ASEAN.

In the Latin American region, Mexico belongs to the medium performance group with the average growth rate per annum around 3.5% along with Argentina, Chile, and Peru during the last century (Table 1, Appendices). Mexico experienced substantial fluctuations in aggregate economic activities, with severe recessions in 1982-1983, 1995, and 2001. Economic history of Mexico indicates that its inward-looking development strategy produced sustained economic growth of 3 to 4 per cent from the 1940s to the late 1960s. Since the 1950s, this country promoted industrialization by encouraging import substitution and mobilizing domestic savings. The government promoted industrial expansion through public investment in agriculture, energy, and transportation infrastructure. Later on, in the 1960s, public spending was redirected toward expanding the nation's industrial capacity. In contrast with high economic growth during the last several decades, Mexico's performance deteriorated since the late 1970s and the 1980s due to poor economic policies. The 1990s seems the most successful decade of Mexico when recovering from the peso crisis in 1995. In the early 2000s, the Mexican economy stagnated due to the downturn of the US economy and the fierce competition from other emergent economies (Figure 1).

While Mexico performed in the context of slower growth in Latin America, Vietnam appeared a striking exception. If Vietnam remained one of the poorest countries in the region, along with Cambodia, Laos, and Myanmar, in the high-speed-economic-growth environment occurring in most East and Southeast Asian countries during the second half of the 20th century (Bassino, 2001), it attempted to catch up its Asian neighbors in the 1990s by being a "good pupil", following the outward-focused growth model adopted by most of advanced Asian countries. Vietnam has registered good economic performance as real annual GDP growth rate maintains around 7% since 1986. Since 2000, Vietnam has been accelerating its economic growth after being hit by the Asian

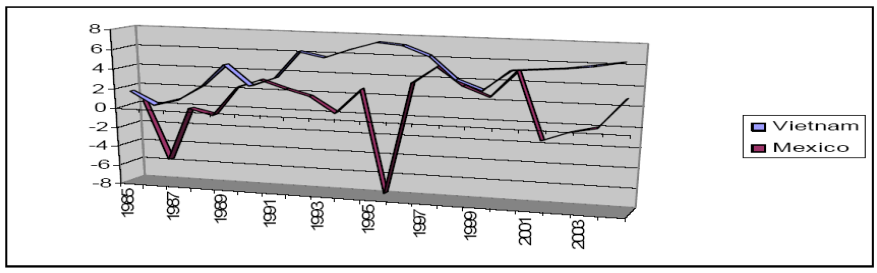
financial crisis and has been performing as well as China in sharp contrast with Mexico's economic downturn during the same period with annual growth rate under 5% (Figure 1).

Figure 1: Annual GDP growth rate of Mexico compared with Vietnam and China (in percentage) during the period 1985-2005



Source: WDI, World Bank, 2006

Figure 2: GDP per capita growth (annual %) between 1985 and 2004



Source: WDI, World Bank, 2006

In addition, the evolution of GDP per capita growth rate of Mexico since 1986 indicates its no-so-good performance as well. GDP per capita growth rate hardly reaches 2% even after its adhesion to NAFTA except a few years of recovery. During this period, Vietnam improved its annual GDP per capita from 2% to 7% before Asian financial crisis and recovered quite quickly after 2000. At the same time, poverty has been substantially reduced from 70% in the mid 1980s to around 29% in recent years.

TRADE AND FDI PATTERNS: A COMPARATIVE STUDY

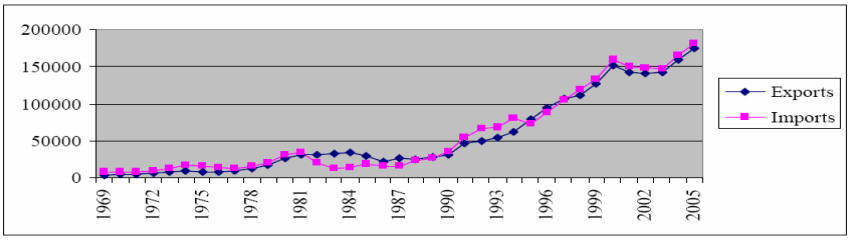
Trade pattern

Both countries experienced a strong increase in international trade and foreign direct investment during the last decade. However, their trade pattern in terms of trading partners or commodities diverge significantly.

Historical data shows that during the 1960s to the early 1980s, Mexico witnessed a steady growth of its foreign trade and a strong deficit of its trade balance by adopting a very strict import substitution policy as a protectionist measure. The peso devaluation in 1985 and the raw material and oil price collapse pushed Mexican authorities to follow the model of the export-led growth strategy adopted by ASEAN countries. In 1986, Mexico acceded to the GATT and launched reforms liberalizing its trade regime with a gradualist approach. The tariff rate was gradually reduced to 10% in 1988 (except in agriculture). Exports recovered modestly until the Mexican economic crisis in 1994. The integration of Mexico into NAFTA had accelerated significantly its foreign trade (Figure 3). As a result, Mexico has been established itself as one of the most important exporters and importers in the US and in the world as well[1]. However, during the past few years, within non-petroleum exports, manufacturing exports increased modestly at 0.4 % during 2002, reflecting the weakness of external demand, and particularly of the US economy.

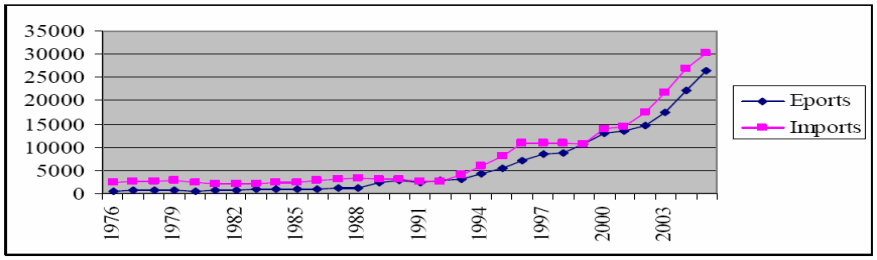
Like Mexico, the late 1980s and the early 1990s were also a turning point for Vietnam's economy, especially in its foreign trade. During the period of partition (1954-1975), both the North and South Vietnam witnessed a severe trade deficit in the context of the war that was financed by Soviet aid in the North, and American assistance in the South. At the reunification, Vietnam suffered a ten-year period of stagnation of its foreign trade, and a huge trade deficit occurred due to very poor production combined with a dong over evaluation. Since the adoption of the open door policy, Vietnam's foreign trade had been liberalized gradually, and has registered a steady progression in its foreign trade (Figure 4).

Figure 3: Evolution of foreign trade of Mexico between 1969 and 2005 at 1995 constant prices (millions of US$)



Source: Our calculations, Direction of Trade Statistics Yearbook, IMF, http://www.nafta-mexico.org

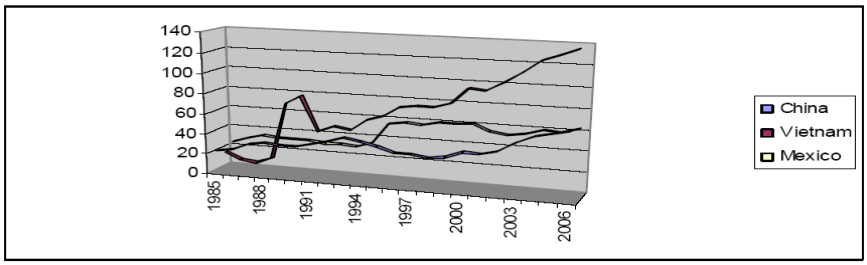
Figure 4: Evolution of foreign trade of Vietnam, 1975-2005, at 1995 constant prices (millions of US$)



Source: Our calculation, Statistical Year Book, Vietnam

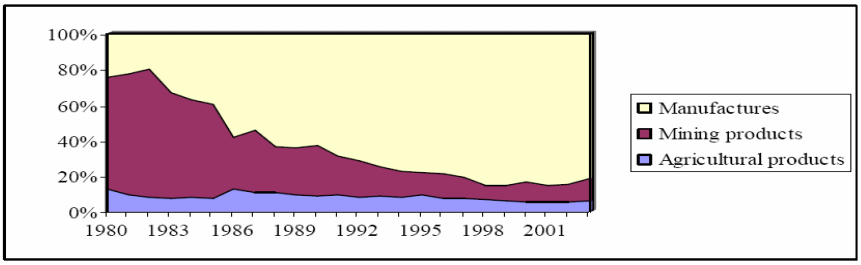
During the 1980s, Mexico seemed more open than Vietnam and China, with a degree of openness of approximately 30%. However, in the 1990s, the openness index of Vietnam became much higher than that of Mexico and China, around 90%, close to advanced members in ASEAN, particularly Thailand and the Philippines (Figure 5).

Figure 5: Evolution of openness index of Vietnam, Mexico and China during the period 1985 -2007



Source: WDI, World Bank, 2007

Figure 6: Evolution of the structure of exports of Mexico (in percentages) (1980-2003)



Source: Our calculation, World Trade Organization

Before the 1990s, trade patterns of the two countries were typical of developing countries, as exports revenues were mainly derived from primary products (agricultural, oil, and mining products). New trade policies oriented towards market liberalization adopted in the 1990's helped both Mexico and Vietnam shift gradually to more added value products in their export structure (Figure 6 and 7). However, the most significant difference between the two trade patterns after entering the regional free trade area is growing intra-industry trade between Mexico and the US versus inter-industry trade between Vietnam and advanced ASEAN members.

For Mexico, in the 1980s, mining products, including oil, accounted for 63% of its total exports, while manufactured products accounted for just 24%. A reverse trend had been observed in the 1990s, especially since its adhesion in NAFTA, as its structure of trade was strongly transformed with a major shift from oil-related to manufacturing exports. More importantly, the manufacturing sector has been considered the engine of growth in the choice of government strategies. The automobile sector is the second most important export earner in the Mexican economy, after oil. Meanwhile, Mexico is most vulnerable in lower value-added sectors such as furniture, toys, apparel, footwear, and certain types of electronics produced in Latin America and Asia, in particularly China.

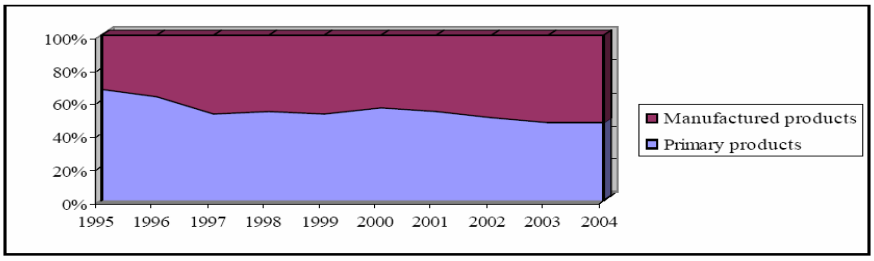
Vertical integration in production increased among NAFTA members in manufacturing electrical machinery, equipment, and vehicles in maquiladoras[3] located along the US-Mexican border. Estimates suggest that about 80% of US trade with Mexico is intra-industry trade. And US trade with Mexico does not fit into a scarce-abundant factor explanation of trade (Ruffin, 1999). This is the most important feature regarding US-Mexican trade.

Despite growing intra-industry trade with the US, this factor did not yield the benefits that Mexico had expected from the diversification of both markets and products in the free trade climate. Several critics point out that Mexican exports became less diversified since NAFTA. Manufactured exports have been concentrated in two manufacturing sectors: 68% in machinery and equipment, essentially computer and automotive industries, and only 8.6% in chemicals. Moreover, exports are concentrated in a small number of companies, represented 70% of the total exports. As far as agricultural products are concerned, only three agricultural products have been heavily developed: coffee, tomatoes, and vegetables (which total 73% of total agricultural exports)[4].

The same intra-industry trade pattern can be observed among advanced members of ASEAN (Singapore, Malaysia, Thailand). Intra-industry trade of intermediate goods accounts for half of intra-ASEAN trade [Khalifah (1996), Garnaut (1998)]. This intra-industry trade is conditioned by FDI associated with industrial policies adopted in ASEAN countries. However, inter-industry trade is well-developed between advanced old members and new members in transition, including Vietnam. In the early 20th century, Vietnam exported its agricultural surplus, such as rice. Under French rule, French investment allowed the development of other products, such as rubber, pepper, corn, and sea products. After the colonial period, the North developed heavy industry, while the South accelerated production in light industry and marine products. At the reunification of the

country, Vietnamese exports were directed to countries that were members of CMEA. Fruit, vegetables, and soybeans were added to its structure of exports. During the 1900s, crude oil and rice have become the two leading exported products of the country. Like Mexico, since the liberalization of its foreign trade and the adoption of open door policy, the structure of Vietnam's exports has also gradually changed. During the 1990s, Vietnam began to exploit its comparative advantage in labor-intensive products, such as textiles and garments, footwear, and computers. Between 1992 and 1997, the share of manufacturing products in Vietnamese total exports increased from 13% to 37%, a significant increase, but still very low compared with 87% share in China and the Philippines, 79% in Malaysia, and 73% in Thailand.

Figure 7: Evolution of the structure of exports of Vietnam (1995-2004)



Source: GSO, 2006

The composition of Vietnam's foreign trade reflects the typical pattern of a developing country in the catch-up process, which is characterized by the exporting of raw materials and importing of capital goods and intermediate goods. The liberalization of foreign trade has helped Vietnam diversify its export products since 1990, but exports remain concentrated in basic products, such as oil, and agricultural products (coffee, tea, pepper, coal, sea products, etc...). In the early 2000s, there was a gradual shift to manufacturing goods, such as computers, electronics, apparel, garments, handicrafts, and footwear, which represented one-third of its total exports. Despite this tremendous effort, this percentage remained very low compared with other advanced ASEAN countries and China, where primary and unprocessed products account for only 15%. Hence, the heavy dependence on primary product exports makes Vietnamese exports less sustainable because of the current fluctuations of their international price.

The Mexican import structure had also changed after trade liberalization. Imports of intermediary goods and raw material increased by 10% while those of capital goods decreased from 17% to 12% in 1996. The consequence is that these imports displace national production and lead to job losses, due to the massive shutdown of companies that used to be suppliers to Mexican companies (Arroyo A., 2004). Additionally, in the 1990s, the majority of imported inputs to the maquiladora industry came from the US. For instance, in 2003, 69% came from the US and 28% from Asia, including 8% from China. The US remains the major supplier, but this rapidly moving

trend continued to run in favor of Asia. Recent data suggest that US suppliers to the maquiladora industry are rapidly being replaced by global competitors, mainly from Asia (Carnas J., Coronado R., 2004).

Meanwhile, in Vietnam, the liberalization of foreign trade in the late 1980s encouraged imports of capital goods and intermediate products necessary for industrialization and modernization of the national production system. As a result, during the 1990s, imports grew faster than exports. These imports are linked to FDI and essentially include: machines, fertilizers, steel, and textile fibers. However, some sectors considered as "strategic" such as steel, cement, agricultural products and consumer goods are strongly protected.

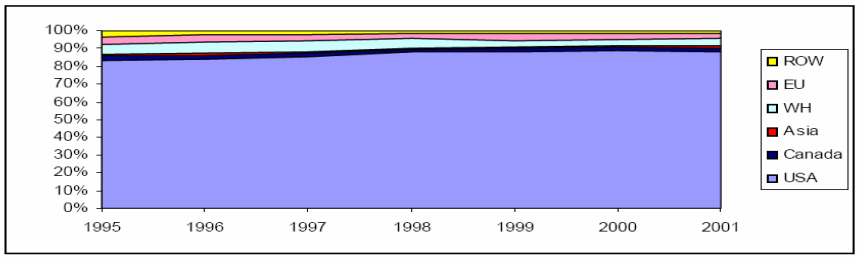
The above analysis of trade patterns of the two countries suggest that Mexico belongs visibly to the group of advanced countries involved deeply in intra-industry trade of manufactured goods especially automobiles and electronics while Vietnam remains a developing country which exports raw materials, and labor-intensive goods, and imports capital goods to develop domestic production.

If trade reforms launched in Mexico and Vietnam have favored the expansion of their international trade, they have also modified the structure of trade in terms of trading partners. While Mexico concentrates its trade relations with North America and Western hemisphere, Vietnam diversifies its foreign trade not only within the Asia region, but also with EU, North America, and other regions as well.

The North American market, especially the US, has long been the most important natural trading partner for Mexico. Historical data shows that the US accounts for an average of 60% of Mexican international trade for the last several decades. After NAFTA, U.S-Mexico trade accelerated to more than 80% for exports and nearly 50% for imports (Direction of Trade Statistic Year Book, different issues, IMF). The Mexican trade pattern, concentrated to one partner, has made its economy vulnerable to business cycles of the US. Despite Mexican efforts to re-enforce trade relations with the EU, trade with the EU remains marginal. It is worth noting that economic development policies of the Mexican government during the past decade have largely been based on the signing of trade agreements with 32 countries, including the two largest markets in the world, the US and the EU, creating a huge preferential market for Mexico.

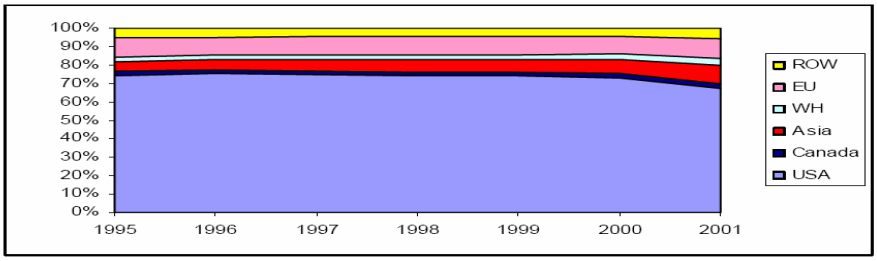
Vietnamese structure in terms of trading partners, in contrast, is much more diversified. In the 20th century while Mexico has been deeply integrated to its region, Vietnam suffered distortion in terms of trading partners during two periods: under the French rule, and during the partition of the country from 1954 to 1975 (The North linked the Soviet Union and the South to the US). These distortions had the consequence of a weakening of commercial flows that had developed with geographically close countries before the 1990s. This, in turn, caused a deterioration of national welfare during these periods (Bui, 2002).

Figure 8: Composition of trade partners in Mexico's exports (1995-2001)



Source: Direction of Trade Statistics Year Book, IMF, different issues

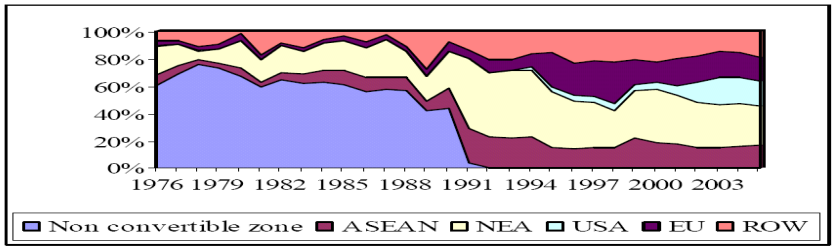
Figure 9: Composition of trade partners in Mexico' imports (1995-2001)



Source: Direction of Trade Statistics Year Book, IMF, different issues

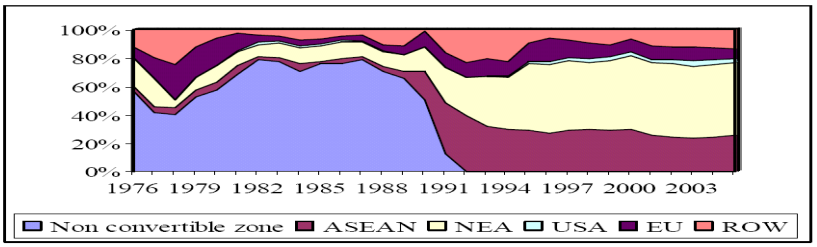
Since the adoption of their Open Door Policy, Vietnam has acquired diverse suppliers from developing and developed countries in Asia, Europe, and North America. ASEAN represents 30% of Vietnamese imports. North-East Asian partners, after the normalization of diplomatic relations with China, Taiwan, Korea, Japan, and Hong Kong, represent half of its foreign trade. The re-orientation of trade flows towards the Asian region also has helped further entry to American and European markets (Figures 10 and 11). This progress shows that Vietnam has rapidly integrated into the world economy and shifted from the socialist world to the convertible zone, playing a non negligible role, not only in ASEAN, but also in APEC.

Figure 10: Evolution of the direction of Vietnamese exports (1975-2005)



Source: Our calculations from data of Direction of Trade Statistics Year Book, IMF and GSO, Vietnam

Figure 11: Evolution of the direction of Vietnamese imports in percentage (1975-2005)



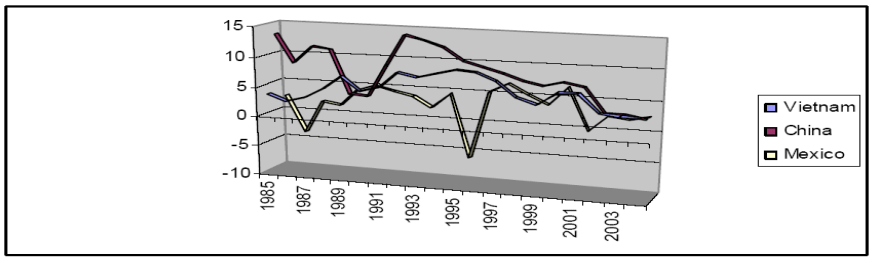
Source: Our calculations from data of Direction of Trade Statistics Year Book, IMF and GSO, Vietnam

The above description of trade patterns of Mexico and Vietnam in terms of products and partners points out three main points. First, the nature of trade of Mexico in NAFTA is intra-industry trade, while that of Vietnam in ASEAN is inter-industry trade. Second, although the two countries look very open, Mexico has been strongly integrated to its region for an extended period, while Vietnam has just recently redirected its trade flows to the region since the open door policy after a long period of distortion phenomena under different political regimes. These two countries now follow the geographic line predicted by the gravity models, as a result, national welfare improvement.

FDI patterns

Since their involvement in free trade agreements, both Mexico and Vietnam have witnessed tremendous expansion of FDI inflows. Looking back to the 1980's, despite several deregulatory reforms and incentives undertaken to attract foreign investors; FDI inflows into Mexico did not substantially increase. Later on, increase in FDI in Mexico was part of the global rise in FDI flows to developing countries, especially in Latin America during the early 1990s[5]. The significant expansion of FDI entering Mexico after 1994 was driven in large part by the signing of NAFTA. Its total volume of FDI quadrupled, and half of FDI under NAFTA concentrated in the maquiladoras which are mostly owned by the US. Mexico has become today the top destination for FDI in Latin America. For illustration, Mexico attracted USD18,055 billion, ahead of Brazil (US$15.066 billion), and Chile (US$6.667 billion) in 2005 (World Investment Report, UNCTAD, 2006). The same upward trend of FDI is observed in Vietnam. High economic growth during the last decade, along with its adhesion to ASEAN, has created a more favorable environment to attract members' investors. Over the past two decades, Vietnam has been attracting nearly USD 83.1 billion. However, a closer look to the ratio of FDI in percentage of GDP reveals that it is higher in Vietnam and China than that of Mexico (Figure 12).

Figure 12: Foreign Direct Investment, net inflows (in percentage of GDP



Source: WDI, World Bank, 2006

FDI inflows into Mexico are dominated by North American sources. Others come from EU, Japan and Korea. Mexican inward FDI are concentrated in manufacturing, both assembly-based operations for exports (such as apparel and electronic equipment), and production for the domestic market (such as food, beverages, and tobacco products) and more recently, services (such as retail trade, and telecommunications). Foreign investors look to take advantage of the country's proximity to the US market, certain tax incentives, and cheap labor. FDI came into Mexico mostly in the form of JV with local companies, as the import substitution policy adopted in the previous decades had created a great number of manufacturing firms that became attractive to foreign investors (Ozas, 2004). They tend to use Mexico as a production base for supplying the North American market, particularly in the automobile industry, a sector that has been one of the major recipients of net FDI flows between 1994 and 1999. The geographic distribution of FDI in Mexico is uneven, tending to concentrate in big cities and the US-Mexico's borders[6].

Despite a strong increase of volume of FDI inflows into Mexico during the last decade, the Mexican government was blamed for adopting neutral FDI policies, ignoring the possibility of designing systems of incentives that could orient the foreign investors toward strategic development sectors. Mexican industrial groups still invest in traditional undifferentiated or slightly differentiated products including steel, petrochemical, glass, cement, food, tobacco, and beer. As a result, FDI tends to concentrate in a few industrialized regions, especially near the US borders, and thus increases the inequality of economic development, income, and social welfare among regions.

For Vietnam, FDI comes from diverse home countries. Interestingly, its top investors including Singapore, Taiwan, Japan, Korea, and Hong Kong, are also its main trading partners. They usually prefer the form of JV or 100% foreign capital in which manufacturing occupies around 60% of the capital, while services account for 35%[7]. With the same pattern of FDI observed in ASEAN, FDI associated with the import substitution strategy for sectors protected by tariff or non-tariff barriers[8], and FDI induced by vertical integration, contributes 30% (except oil and gas) of the cumulative amount of FDI in Vietnam. Like Mexico, low cost of labor is the main source of attraction of FDI in intensive labor manufacturing (footwear, electronic assemblage, textiles, and garments). ASEAN investors, such as Singapore, Thailand, and the Philippines tend to invest in

sectors rapidly profitable like hotel, construction, and light industry and to concentrate in big cities with good facilities (such as Hochiminh city, Binh Duong, Hanoi). These investors aim chiefly to meet domestic demand rather than for exports. However, the geographical proximity between members might structure the regional production and enable the creation of complementarities in the region. Thus, the role of AFTA is to facilitate the relocation of the production network among members following their comparative advantage.

The above comparison of trade and FDI patterns of Mexico and Vietnam suggests that the opening up to trade and investment allows these two countries to become increasingly integrated into their regional market. More importantly, their proximity to the Asia-Pacific market makes them natural trading partners, an issue that is discussed in the next section.

REGIONAL INTEGRATION AND ECONOMIC GROWTH: AN EMPIRICAL STUDY

Trade interdependency of Vietnam and Mexico in the Asia-Pacific region

In the Asia-Pacific Rim, institutional free trade agreements have been numerous: AFTA (ASEAN Free Trade Area), NAFTA (North America Free Trade Area), the projects of ACFTA (ASEAN-China Free Trade Area) and ASEAN+3 (ASEAN + Japan, China and South Korea). Despite the current interest in creating such agreements in the region, the deepening trade interdependency in the Asia-Pacific region is made clearer if we estimate the trade intensity index[9]. The strength of the trading relationship of Vietnam and Mexico with different trade agreements will be analyzed in this section. Based on these indicators, the evolution of trade interdependency of Vietnam and Mexico within APEC, EU, and NAFTA will be assessed in 1996 and 2001. The choice of these years is justified by steady increase in international trade of both Mexico and Vietnam, eliminating the signs of downturn caused by Asian crisis for Vietnam in 1997 and by the recession of the U.S. in the early 2000s.

Trade interdependency indicators of Vietnam and Mexico shown in Tables 2 and 3 confirm the higher level of regional integration in terms of trade of the two countries in the Asia-Pacific region from 1996 to 2001 with relative intensities between 1.5 and 2.5. Both considered APEC more and more as their major sources of supply. Vietnam exports 62% of its total exports to APEC countries and receives 72% of its imports from those countries. There is strong trade creation for both Mexico and Vietnam as a result of NAFTA and ASEAN as their trade intensity indicators show between 3.5 and 4.5 for imports and exports. ASEAN is the top supplier for capital and intermediate goods, representing approximately 30% of its imports while NAFTA is the primary client for Mexico (Trade intensity index for exports of Mexico is 4.66 in 2001 versus 3.71 in 1996. These countries are less likely interested in reinforcing trade relations with the EU.

Table 1: Trade interdependency indicators of Vietnam and Mexico in the Asia-Pacific region with ASEAN and with North East Asia in 1996 and 2001

Trade Relations	ASEAN				North East Asia			
	Exports 1996`	Imports 1996	Exports 2001	Imports 2001	Exports 1996	Imports 1996	Exports 2001	Imports 2001
Vietnam	3.44	3.97	2.91	4.49	2.44	1.92	2.68	1.80
Mexico	0.14	0.14	0.08	0.23	0.16	0.28	0.17	0.29

Source: Computed from Direction of trade Statistics YearBook. IMF. Different Issues

Table 2: Trade interdependency indicators of Vietnam and Mexico in the Asia-Pacific region with APEC, with EU and with NAFTA in 1996 and 2001

Trade Relations with	APEC				EU				NAFTA			
	IDRX	IDRM	IDRX	IDRM	IDRX	IDRM	IDRX	IDRM	IDRX	IDRM	IDRX	IDRM
	1996	1996	2001	2001	1996	1996	2001	2001	1996	1996	2001	2001
Vie tnam	1.54	2.07	1.23	2.56	0.31	0.26	0.75	0.28	0.28	0.15	0.31	0.45
Mexico	1.85	1.95	1.94	2.20	0.10	0.24	0.09	0.28	4.08	3.71	3.57	4.66

Source: Computed from Direction of trade Statistics YearBook, IMF, Different Issues

The above trade creation information indicates clearly that these two countries have progressively directed their trade relations towards their "natural" trading partners according the approach of proximity that will be estimated in the next section.

The Natural Trade Structure of Vietnam and Mexico in the Asia- Pacific Region

The dynamics of international trade of Mexico and Vietnam analyzed in the previous section can be supported by the gravity models. This section examines the key factors influencing the international trade of Mexico and Vietnam in the Asia-Pacific region. In order to evaluate their trade links with the region and the natural structure of trade flows of APEC countries) which are the main trading partners of Mexico and Vietnam), the following gravity equation used by Le, Nguyen and Bandara (1996) will be tested.

The gravity model has been applied extensively to estimate the determinants of bilateral trade flows. In its basic formulation, the geographic distance between the two countries and their economic size are included to explain bilateral trade flows. In addition to these two basic variables, several other factors have been introduced in the gravity equation that would influence bilateral trade flows, such as per capita GDP associated with the level of economic development, and regional

dummies included to test the existence of special regional bias in some regions. Economists who support the "natural trading partners" hypothesis argue that forming a regional trade agreement is more likely to raise welfare if member countries already trade disproportionately with each other. Therefore, gravity equations are useful for estimating changes in the trading relationships among countries and assess the impact of policy characteristics, for example, membership of a given regional trade agreement on trade flows. Using the gravity model, many empirical studies have examined the impact of trade blocs such as ADEAN, AFTA, EU, NAFTA, and MERCOSUR.

The gravity equation specified is written as follows:

$$logTRADE = constant + \alpha\, log(GDP_i * GDP_j) + \beta\, log(GDP_i\, percapita * GDP_j\, percapita) + \chi\, logDISTANCE_{ij} + \varphi\, AFTA + \varepsilon\, NAFTA + \gamma\, APEC + \varphi\, VIETNAM + \delta\, MEXICO + \mu$$

The sample is composed of 22 countries located in the Asia-Pacific region including three non-members of APEC (Laos, Cambodia, and Myanmar), Vietnam, Thailand, Malaysia, Indonesia, Philippines, Singapore, Hong Kong, Japan, South Korea, China, Taiwan, USA, Canada, Mexico, Chile, Papua New Guinea, Russia, Australia, and New Zealand. There are N= (224x21/2=231) bilateral trade flows. The results of estimation are shown in Table 3.

Basically, the regression works well. The R-squared between 0.774 and 0.863 indicates that the natural structure of countries in the Asia-Pacific region fits well to the model specification. The coefficients of the explanatory variables have the expected signs. The coefficients of the two variables Log (GDPi*GDPj) and Log (GDPi/ capita * GDPj/ capita) are statistically significant and positive, while the variable representing the geographical distance is significant and negative.

In 2001, an increase of 1% of the GDP of country i or country j will increase 0.73% of their level of bilateral trade flows, while an increase of 1% of their GDP per capita will allow them to increase their bilateral trade flows up to 0.16%. However, if the geographical distance of the two partner countries increased 1%, their bilateral trade would tend to decrease to 1.17%. APEC seems to be a very dynamic region as its dummy variable is strongly statistically significant and positive (7.831 for T-statistics). Interestingly, ASEAN, which for the last two decades has been a region that concentrated more on its extra-ASEAN trade than intra-ASEAN trade, has a role to play in promoting intra-APEC trade. This is validated by the coefficient of the dummy variable ASEAN being statistically significant and positive, while it was not statistically significant in 1996.

This result validates that ASEAN is a leading promoter of intra-regional trade in the Asia-Pacific Rim (Toh Mun Heng, Gayathri V., 2004). This behavior sharply contrasts with that of NAFTA as its dummy variable is statistically significant and negative. This result indicates that NAFTA has not yet contributed to the dynamics of trade within the Asia-Pacific rim. Vietnam and Mexico, "Under Performer" in 1996 are no longer significantly negative and reached the average of our gravity model in 2001. This result suggests that Mexico and Vietnam have been developing

trade relations with the Asia-Pacific region and the determinants of intra-regional trade are the same factors that are important in determining the intra-regional trade levels of other members in the region, namely GDP, GDP per capita, and geographical distance.

Table 3: Results of Estimation for the year 1996 and 2001 [10]

	1996	2001
Explanatory Variables		
Constant	-1.450	-5.071***[2]
	(-1.128	(-4.434)
Log (GDPi*GDPj	0.555***	0.731***
	(12.405)	(18.701)
Log (GDPi/capita * GDPj/capita)	0.195***	0.162*
	(3.420)	(3.236)
Log (Distanceij)	-1.283***	-1.167***
	(-10.728)	(-11.923)
Dummy Variables		
ASEAN	-0.115	0.550**
	(-0.356)	(2.027)
APEC	2.612***	1.764***
	(10.139)	(7.831)
NAFTA	0.018	-0.783***
	(0.059	(-2.889)
VIETNAM	-0.873***	(-0.090)
	(-2.656)	(-0.334)
MEXICO	-0.559*	-0.440
	(-1.647)	(-1.513)
R^2	0.774	0.863
Number of observations	231	231

ISSUES OF AN ASYMMETRIC FREE TRADE AGREEMENT

Migration issues

In the context of an asymmetric free trade agreement signed between developed and developing countries, the need for unskilled workers in developed countries exists, as does the abundant supply of unskilled labor in developing countries. Nevertheless, in the Free Trade Agreements signed by NAFTA and AFTA members, this point is not included in the official agreement. Yet in reality, in the past few years it has been reported that there are from three to five

million illegal Mexican workers living in the US. From NAFTA's viewpoint, migration issues are not included because it was thought that free trade would solve this problem in the long run. The agreement did not liberalize US immigration regulations for Mexican workers (except for highly educated professionals), nor did take actions to improve the situation of the growing number of Mexican illegal workers immigrating to the US (Blecker, 2003).

The same problem of labor migration has been observed in some ASEAN countries although there is no plan for the free movement of labor within AFTA. However, the number of workers who are moving to work in other AFTA counties has increased dramatically, particularly in the past five years (UNESCO). In ASEAN countries, it is more obvious as individual members have a huge labor force. However, in reality, countries endowed with capital, like Singapore, or in natural resources, such as Brunei and Malaysia, might be handicapped by a shortage in labor force. As a consequence, inflows of ASEAN workers have moved illegally to these countries. In the 1980s, unqualified Indonesian workers immigrated to the Malaysian labor market in plantations and construction sites (Jayasankaran, 1996). In the 1990s, a new wave of immigration was observed (300,000 to 450,000 Indonesian workers in Malaysia, (Lim, 1986). According to APEC sources, Malaysia had 1.1 million immigrant workers, representing 10% of the labor force in these countries, in which half of them were Indonesians. With the expansion of international trade and investment intra-ASEAN, not only have unskilled workers migrated to the region, but also skilled workers, technicians, and managers. Later, the Asian economic crisis forced these host countries to announce plans to send these workers back to their home countries. However, the quick economic recovery in the region has pushed immigrant workers into Malaysia (37,000 in 2000, out of 540,000 Indonesians, Source: APEC). Since 2002, Vietnam has sent 90,000 workers to officially work in Malaysia in the construction sector. Since 1991, the promotion policy of exports of unskilled labor has increased the migration of Vietnamese workers. The number of Vietnamese workers has increased from 1,020 workers in 1991 to 90,000 in 30 Asian, Middle-East and North African countries. During the same period, 24,000 Vietnamese workers had immigrated to Lao. However, the exact number of illegal flows in neighboring countries cannot be easily estimated. These figures reveal that the phenomenon of migration does exist even though it is not spelled out in the official agreement which created the trade area, AFTA. Nevertheless, the need of a greater labor force exists in several countries in the region.

These observations reveal the reality of the labor migration phenomenon within free trade areas like NAFTA and AFTA due to the lack of an unskilled labor force in more advanced members involved in asymmetric agreements. (and also the need for these countries to develop their economy) Even NAFTA or AFTA do not integrate labor markets *de jure*, they continue to become integrated *de facto* (Blecker, 2003). Therefore, the no codification of the free movement of labor in such agreements might damage comparative advantages that certain members with extensive labor forces could take advantage of (such as Mexico, Thailand, the Philippines, Indonesia, and Vietnam). A further liberalization of the labor market could be included to provide labor forces to the region. The

problem is how to organize the labor market at the regional level. Most importantly, less advanced countries endowed with abundant labor forces should launch programs of reform to boost economic development in provinces that are sources of migrant labor. This strategy could improve domestic production networks to make them sufficiently efficient, creating jobs and to improving wages to slow down the movement of migration to more advanced members.

Issues of social welfare

Openness to trade and investment has changed the growth path, enhancing efforts to improve social welfare and to reduce poverty in both Mexico and Vietnam. The evidence of the relationship between economic growth and poverty reduction is supported by Bhagwati J., Srinivasan T. N. (2002) with the cases of China and India[11]. In addition, Dollar (2001) suggests that other economies such as Vietnam and Uganda have had similar experience. Dollar argues that the only developing countries that have registered significant declines in poverty are those that also have integrated faster into the world economy on the dimension of trade and direct investment. Efforts to reduce poverty in Vietnam praised by World Bank illustrate such a linkage. If in the 1990's 70% of the Vietnamese population lived in poverty, only 28.9% was considered poor by the 2000's. Another illustration of rising living standards in Vietnam is the steady annual growth of GDP per capita (up to 7% for Vietnam against the average of 2% for Mexico). Booming exports in Mexico in the context of NAFTA have not helped improve substantially Mexico's economic growth and social welfare. Poverty reduction remains a basic challenge for Mexico's development. According to the statistics of World Bank, between 1996 and 2002, Mexico made progress in its poverty reduction efforts, but poverty still remains. For example, in 2002, half of the country lived in poverty, and one-fifth in extreme poverty (World Bank, 2004). In addition, the purchasing power of most Mexicans has been reduced significantly.

In terms of employment, the Mexican economy did not grow fast enough to absorb the 900,000 workers who newly enter the labor market every year. According to many forecasts, Mexico needs to grow 5% a year over the next decade to absorb the new workers. In fact, the Mexican manufacturing sector, considered as one of most dynamic sectors and responsible for two-thirds of Mexico's exports, seems unable to create new jobs and has experienced an absolute decrease in employment. In fact, during the period 1994-2002, about 630,000 jobs were created in the manufacturing sector, or around 80,000 new jobs per year. In summary, the manufacturing sector provided jobs for less than 12% of the people newly seeking employment[12]. This forced workers to seek for jobs in the informal sector or to cross US-Mexican borders. Regarding domestic production, these exports were not coming from Mexican firms but mostly from multinational firms and foreign corporations that rely mainly on cheap labor and imported productive inputs. For decades, the domestic input of components and packaging in the maquiladora industry has been less than 3%. Thus, exploiting only cheap labor limits opportunities for Mexico to develop the production of spare

parts and secondary industry, and the existing Mexican manufacturing sector is blamed for being disconnected from the domestic economy (Gallagher, Zarsky, 2004).

The Role of the Government in Investing in Public and Human Capital

Endogenous growth theories emphasize physical and human capital as important determinants of economic growth. The failure of a great number of developing countries to grow despite huge investment of public goods is explained by their lack of investment in human capital. Experiences from Mexico in the early 2000s teach us that lack of investment in infrastructure, telecommunication and innovation due to the *laissez-faire* attitude of the Mexican government has led to the direct consequence of loss of competitiveness and regional disparities in income in this country. Indeed, NAFTA did not reach Southern Mexico, seeming unable to boost innovation and invest in capital and human capital (Esqival, Lederman, Messmacher, Villoro, 2003). Southern states of Mexico, such as Chiapas, Guerrero and Oaxaca, did not benefit from NAFTA. If poor states in Mexico had received the same education and infrastructure in 1990 as did the states, they would have grown more than the rich Mexican states (World Bank, 2003). These findings should serve as a lesson for Vietnam in terms of regional disparities. These authors argued that the reason that these provinces were not prepared to reap the benefits of free trade was because of poor governance, poor infrastructure, and little access to telecommunication services. Social instability and public policies that would reduce the disadvantages of these states in terms of education, infrastructure, and institutions were not in place. Thus, these provinces need public policies that will reduce the disadvantages of these states in terms of education, infrastructure, and institutions.

Furthermore, the fast growing international competition in the era of the new economy has recently threatened the poor Mexican innovation system that could not increase its international competitiveness. Even though Mexico is ranked as 52nd in the Global Competitive Index by World Economic Forum in 2007[13], it hardly competes with its international competitors such as China and Vietnam in terms of innovation as it ranks 71st compared with China (38th), India (28th), and also behind Vietnam (64th). More importantly, NAFTA alone will unlikely be sufficient for Mexico to catch-up with the pace of innovation in North America. Again, cheap labor as the main component of competitiveness adopted by Mexico during the last decade fails as a strategy, ignoring the relationship between a country's performance and its technological innovation. The weakness of innovation of Mexican firms seems to be partially the missing link between trade liberalization and high economic growth of this country.

In addition, critics focus on the *laissez faire* attitude of the Mexican government that is in sharp contrast with the practice of other Asian countries to boost national dynamism. The lack of policy adoption to improve Mexican international competitiveness contrasts with what was suggested by the endogenous growth theory, where the role of the government is highlighted to create a framework to explain why economic institutions and policies can have long-term effects on

growth rates. This new growth theory teaches that the level of human capital determines the rate of growth, and having a large population is not sufficient to generate growth (Romer, 1989) [14].

As the Global Competitiveness report in 2007 points out two factors that have been hampering Mexican productivity and competitiveness: the poor labor market efficiency and the mediocre quality of higher education. The labor market ranks 92nd among 131 countries is probably the most problematic compared with China (55th) and Vietnam (45th). Besides, the Mexican education system does not provide to its labor market necessary skilled workers, particularly scientists and engineers (96th) despite a visible effort in spending on high education, 5.25% of GDP in 2005 (ranked as 33rd in the sample). The Mexican education system gets poor marks for quality (92nd). Despite its good score in market labor efficiency, Vietnam is ranked quite mediocre in higher education and training (93rd). As a result, both Vietnam and Mexico need to improve their current education system in order to become more competitive internationally.

CONCLUSION

Results of this study suggest that economic integration in the context of the second wave of new regionalism and openness have helped developing countries like Mexico and Vietnam gain access to greater markets and attract FDI in their countries. The expansion of trade in these two countries during the last decade following the pattern of "natural" trading partners is likely to increase economic welfare as predicted by the gravity models. Since 2001, these two countries have caught up to the level of intra-regional trade of the Asia-Pacific region.

However, new regionalism could not boost economic growth for all developing members in order to meet growth convergence with more advanced members. If regional integration and openness allowed Vietnam to register rapid economic growth and substantial poverty reduction, it could not help improve significantly such economic performance and social welfare for Mexico. Free trade is not sufficient to boost national dynamism; that is the key factor that enables a country to improve its international competitiveness and social welfare in conjunction with the adoption of economic policies focused on investment in physical and human capital, as the theory of endogenous growth suggests. In this regard, Mexico is blamed for failing to reduce poverty and regional disparities, under-investing in public and human capital, adopting few economic reforms to increase productivity, not improving its competitiveness, and especially not creating an internal dynamism to boost economic development in the country. These challenges present a life experience for Vietnam in the longer term as "free trade is not a substitute for a development strategy, it is one of the ingredients in much a broader development framework" (Lederman, 2003) and "what matters most is whether the country adopts the right growth strategy " (Rodrik, 2005).

ENDNOTES

1 In 2006, Mexico is ranked as the 15th leading exporter and 14th leading importer in world merchandise trade while Vietnam is ranked the 50th and 46th respectively (Website: wto.org).

2 Trade in percentage of GDP

3 The maquiladora program ("twin plant or production sharing") has opened the 2, 000 miles border region for American firms involved in labor-intensive manufacturing. Under the program, equipment, machinery, supplies, and raw materials can be temporarily imported into Mexico duty-free (RUFFIN R.J., 1999).

4 NAFTA and the Mexican economy

5 Mexico, along with Brazil and Argentina, was one of the major FDI destinations in Latin America in the 1990s.

6 Since the implementation of NAFTA in 1994, Mexico City has received 60% of the total amount of FDI, while Nuevo Leon, Baja California, Chihuahua, Tamaulipas, and Jalisso receive around 30% of all the Mexican federations.

7 http://www.vneconomy.com.vn

8 The Vietnamese government promotes a number of strategic industries such as cement, steel, and sugar.

9 To quantify the degree of trade interdependency, several authors used a measure of the intensity of interdependency (or trade intensity). Trade interdependency indicators show commercial relationships among countries or groups of countries [Lafay. Herzog (1989), Benzidoun, Chevalier (1994), cited by Palmero (2000), Kim (1994), Wong (2005)]. The indicator of relative intensity of exports and imports of country i to country j called IDRX and IDRM respectively are calculated as follows:

IDRX = (Xij/Xi)/(Mj/ Mw)
IDRM = (Mij/Mi)/(Xj/ Xw)
Xij: exports of country i to country j
Xi: total exports of country i
Mj: total imports of country j Mw: total world import
Xij/Xi: weight of exports of country i to country j in the total exports of country i
Mj/ Mw: weight of imports of country i to country j in the total world trade
Mij: exports of country i to country j
Mi: total exports of country i
Xj: total imports of country j
Xw: total world export
Mij/Mi: weight of exports of country i to country j in the total exports of country i
Xj/ Xw: weight of imports of country i to country j in the total world trade

10 *: The T-statistic is significant at 10%
**: The T-statistic is significant at 5%
***: The T-statistic is significant at 1%

[11] In their study, they conclude that the experience of the two giant economies of China and India has achieved faster growth and reduction in poverty through greater integration into the world economy, treating such integration as an opportunity rather than as a threat.

[12] NAFTA, Foreign Direct Investment, and sustainable industrial development in Mexico, website: americaspolicy.org

[13] The Global Competitiveness Index: Measuring the productive potential of nations, 2007 World Economic Forum

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MEASURING CUSTOMER SATISFACTION BASED ON SERVICE QUALITY GAP AT A LOCAL BANK IN VIETNAM

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ABSTRACT

The paper aimed at examining the extent to which a local bank in Vietnam was practicing service quality based on the assessment of service quality gap perceived by the bank customers. More specifically, the research attempted to answer the questions: "Is there a gap between customer's expectation and customer's perception towards the service quality which the bank is offering?", and "Is there an association between age/ gender of customers and the frequency of their bank visits?" The findings, through empirical research, revealed that the majority of respondents were quite satisfied with what they perceived from the bank though the gaps between customers' expectations and customers' perceptions towards the service quality which the bank was offering did exist. It also found out that there was an association between gender and frequency level of bank visits of respondents while there was no association between frequency levels of respondents' bank visits across five age groups. In addition, the research produced some other findings giving the bank a deeper insight into their customers with respect to age and gender criteria. The research results suggested that the most frequent bank customers were the second youngest group (24-35) and middle-aged people (36-49). In terms of gender, female respondents (61.2%) accounted for the majority of the bank's customers compared to male ones (38.8%).

INTRODUCTION

The global trends and challenges in services in today's business world showed that "services companies are under a constant and dynamic change" while "customers are becoming less loyal, more price sensitive and discerning …" (Sigala & Christou, 2006).

It is the common knowledge that customers are the lifeblood of any company's business nowadays. Because of their importance, customers perceive that they have the power to demand high service quality (Macdonald, 1995). This leads all companies to the battle competing for customers. Moreover, customers are now more aware of other service providers as well as the range of financial products available for them in the marketplace. Customer expectations rise accordingly, thus they are "more critical" when choosing the service (Akan, 1995). As a result, service providers must

redouble their efforts if they want to be winners in this battle (Edvardsson, Thomasson & Ovretveit, 1994). And financial service providers are not exceptions for that.

In that context, service quality (*SQ*) is a prerequisite for the survival and development of any company (Parasuraman, Berry & Zeithaml, 1988). Many authors backed up this statement since the early of the 1980s until now. Their reasons are as followed.

First, it is a critical factor in achieving competitiveness in most service industries (Galloway & Ho, 1996). Only when SQ is paid enough attention to can the company differentiate itself from other rivals in the marketplace and gain a lasting competitive advantage in the long run (Galloway & Blanchard, 1996; Gounaris, Stathakopoulos & Athanassopoulos, 2003).

Second, SQ is a key to long-term profitability as it affects the repurchase intentions of both existing and potential customers (Anderson, Fornell & Lehmann, 1994; Caruana & Pitt, 1997; Leverin & Liljander, 2006). Furthermore, if customers stay long with the company, more profit can be gained by reducing customer acquisition costs and lowering costs thanks to serving repeat customers (Heskett, Jones, Loveman, Sasser & Schlesinger, 1994; Mittal & Lassar, 1998; Roig, Garcia, Tena & Monzonis, 2006).

And finally, SQ can be used to fan word-of-mouth advertising (Julian & Ramaseshan, 1994). This powerful tool can help the company to recruit new customers with lower cost. It is estimated that attracting new customers is about four times more expensive than retaining the current ones (Wang, Lo & Hui, 2003). The research topic, measuring customer satisfaction based on service quality gap, has been widely discussed by many researchers for years. In the scope of this research, the authors intended to provide insights into the gaps between customer expectations and customer perceptions towards the SQ which the local bank was offering. The researchers also explored the relationship between the age, gender of the respondents and their bank visit frequency.

The hypotheses the researchers aimed at testing including (1) There is a gap between customer perception and customer expectation towards the bank's SQ, and (2) There is an association between age/ gender of customers and the frequency of their bank visits.

While SERVQUAL framework is the most widely used SQ measuring tool in developed countries (Blanchard & Galloway, 1994), it has not been applied in developing Asian countries as popularly as it has been in developed countries in Europe and in the U.S. The authors put this powerful tool in a real organizational setting in Vietnam, one of the developing Asian countries, with the hope to contribute to the literature to some extent. Furthermore, the research also helped the local bank managers to gain deeper understanding of their business and their customers.

This paper began with a brief review of the relevant literature developed earlier, followed by the researchers' hypotheses and the methodology explanation. In later parts, the results were presented, and discussed before the conclusions were drawn.

LITERATURE REVIEW

Understanding the concept of service quality

SQ is a multi-dimensional concept (Jamal & Naser, 2002); it means different things to different people (Bennington & Cummane, 1998). Firstly, service is abstract (Sureshchandar, Rajendran & Anantharaman, 2002). As a result, service is difficult for suppliers to explain and for customers to assess (Edvardsson *et al.*, 1994). Secondly, no global definition of quality has been established until the time of speaking even though this has been the focus of discussion throughout history. Rather, different definitions are accepted under different circumstances (Reeves & Bednar, 1994). The search for this definition carried out by Bennington and Cummane (1998) showed that quality has been defined variously as excellence (Pirsig, 1974 & Kitto, 1951), value (Feigenbaum, 1951 & Abbott, 1955), conformance to specifications (Levitt, 1972 & Gilmore, 1974), conformance to requirements (Crosby, 1979), fitness for use (Juran, 1974, 1988), loss avoidance (Taguchi cited in Ross, 1989) and meeting and/or exceeding customers' expectations (Gronroos, 1982 cited in Parasuraman *et al.*, 1988). Quality is also defined as "a measure of the extent to which the service delivered meets the customers' expectations" (Ghobadian, Speller & Jones, 1993) which was supported by Harrison (2000). Among many definitions, Reeves and Bednar (1994) stated that the most popular definition of quality was meeting and/or exceeding customers' expectations. And this definition was adopted within the scope of this paper.

SERVQUAL model – a SQ measuring instrument

A sound measure of SQ is necessary in any organisation, especially service organisations for a number of reasons. *Firstly*, it identifies the aspects of service requiring performance improvement. *Secondly*, it assesses how much improvement is needed on each aspect, and evaluates the impact of improvement efforts (Zeithaml & Bitner, 2003). *Lastly*, the right measurement method also helps to guide management's decisions to achieve the maximum impact on customers with limited resources (Bennington & Cummane, 1998; Machauer & Morgner, 2001).

What do customers consider when they judge SQ? This question has been addressed by many researchers over the years. Now it is safe to conclude that customers do not perceive quality in a uni-dimensional way. Instead, they judge it based on a number of factors relevant to the context (Zeithaml & Bitner, 2003). Hemmasi, Strong and Taylor (1994) said that the most widely used and tested SQ instrument has been SERVQUAL. Moreover, it is also the most frequently applied model in international settings (Newman, 2001; Kassim & Bojei, 2002, Sureshchandar *et al.*, 2002; Zhou, 2004). Cronin and Taylor (1992) even concluded that this model fit well with the banking industry. The research focused on the performance of a bank; therefore, SERVQUAL was adopted.

This framework was based on the gap theory developed by Parasuraman *et al.* (1985). In the earliest stage of SERVQUAL, there were ten components of SQ. They were tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding/ knowing the customer, and access (Parasuraman *et al*., 1985). Later on, these determinants were consolidated into SERVQUAL instrument with five dimensions: tangibles, reliability, responsiveness, assurance and empathy (Buttle, 1996). These five dimensions were also considered as the skeleton of SERVQUAL (Bahia & Nantel, 2000). In their works in 1988, its authors, Parasuraman *et al*. defined them as followed.

> Tangibles: "the appearance of physical facilities, equipments, personnel".
> Reliability: "the ability to perform the promised service dependably and accurately".
> Responsiveness: "the willingness to help customers and to provide prompt service"
> Assurance: "the knowledge and courtesy of employees and their ability to inspire trust and confidence".
> Empathy: "the caring, individualized attention the firm provides its customers".

Thus, while SERVQUAL refers to only five dimensions, it still covers all ten original components as mentioned earlier (Parasuraman *et al.*, 1988; Zeithaml *et al.*, 1990).

The survey asks customers to provide different ratings on the level of service which they expect from the company and on their perception of service delivered by the company in two separate parts. The first part of the measuring process is to establish customer expectation (CE) of the service they want and the second part is about customer perception (CP) of the services actually provided. During the measuring process, customers will use a 22-statement questionnaire based on the above-mentioned five dimensions. In each statement, the 7-interval Likert scale is applied to measure customers' expected quality and customers' perceived quality. By contrasting these two measurement profiles from customers, the difference between what the customers expected from the bank and what the bank has done to meet those expectations can be clearly seen (Zeithaml & Bitner, 2003).

Besides the authors, other researchers such as Sasser, Olsen and Wyckoff (1978 cited in Parasuraman *et al.*, 1988) all agreed that SERVQUAL measures perceived quality or the discrepancy between CE and CP. In the SQ literature, *customer expectations* are understood as "desires or wants of consumers" (Zeithaml, Berry & Parasuraman, 1993) or "what they feel the service provider should offer rather than would offer" (Parasuraman *et al*., 1988). *Customer perceptions* are defined as "the customer's judgement of the service organization's performance" (Llosa, Chandon & Orsingher, 1998).

The importance of demographic information

Today organizations have to manage their activities within limited available resources. Thus, how to allocate those resources effectively is always the question set for any management team. The

more they understand their customers, the better their decisions could be. Demographic information such as age, gender, income, marital status, education, etc. could be of great help (Kaynak & Harcar, 2004). It is definitely helpful information for the bank managers because their respondents of different gender and age group could have different decisions when doing business with the bank (Spathis, Petridou & Glaveli, 2004; Palmer & Bejou, 1995).

Hypotheses

H1: There is a gap between customer perception and customer expectation towards the bank's service quality.

H2: There is an association between age/ gender of customers and the frequency of their bank visits.

METHODOLOGY

Due to the uniqueness of the study focusing on a local bank in Vietnam and the necessity of valid and reliable data to gain an insight into the situation, collecting quantitative data from a primary research was the researchers' choice. The primary data were collected through a point-of-sale self-administered questionnaire survey with the sample size of 1,000 in three weeks' time with the help of the bank staff at all branches of the bank in Vietnam.

Sampling plan

Convenience sampling was applied. Thus, every customer who came to the bank during business hours (8.00-16.00) from Monday to Friday and Saturday morning (8.00-11.30) over the period of three weeks' time was offered to participate in the study.

Validity of the questionnaire content

In developing the questionnaire, previous studies in the data collection method by using point-of-sale self-administered questionnaire (Oppenheim, 1992; Hiles, 1993; Zikmund, 2003; Hill, Brierley & McDougall, 2003; Chisnall, 2005), designing questionnaire (Crouch & Housden, 1996; Saunders, Lewis & Thornhill, 2003; Robson, Pemberton & McGrane, 2005) were seriously considered.

A pilot study was needed for some reasons. First, SERVQUAL model was developed in the West. As a result, it would be best suited to be applied in that culture (Winsted, 1997). Second, cultural differences can affect the way people evaluate SQ because they lead to various dimensions of SQ accordingly (Malhotra, Francis, Agarwal & Baalbaki, 1994 cited in Winsted, 1997). Third,

the banking practices are different in each region of the world, in most cases in each country. Thus, the same measurements could not be used directly in the banking sector in an Asian country (Cui, Lewis & Park, 2003). However, researchers are still on the way to quest for the instrument with universally applicable dimensions of SQ (Bolton & Myers, 2003). In the meantime, SERVQUAL can be employed.

Because the survey was conducted in Vietnam, the questionnaire was translated into Vietnamese for the benefit of Vietnamese respondents. Although two experienced senior managers in that local bank checked and approved the content validity (wording and meaning) of the questionnaire, the researchers still decided to carry out a pilot study to test the potential effectiveness and limitations of the questionnaire (Robson *et al.*, 2005).

Based on the pilot study results with 30 bank customers, the researchers made necessary adjustments to the questionnaire before distributing it to the potential respondents in the main survey. Pilot studies have also been performed with other banks which have employed SERVQUAL (Bahia & Nantel, 2000).

Measurements

The refined version of the questionnaire included seven questions carefully designed in terms of content and answer strategies.

Question 1 asked the branch visit frequency level of the respondent.
Question 2 asked about the respondent's opinion of different service attributes using the five SERVQUAL dimensions, as suggested in the Literature—reliability, responsiveness, assurance, empathy, and tangibles.
Question 3 asked the respondent to rate the importance of each SQ dimension.
Question 4 asked the respondent to specify whether the overall SQ has changed over the last six months.
Question 5 asked whether the respondent would recommend the bank to their family members/friends
Question 6 asked about the gender of the respondent.
Question 7 asked about asked the age of the respondent.

FINDINGS, ANALYSIS AND DISCUSSION

In the scope of the main survey, 1,000 questionnaires were distributed in all bank branches nationwide. After three weeks' time, 284 questionnaires were collected (28.4% out of the total number of questionnaires distributed). Out of 284 questionnaires returned, 268 were considered to be valid and usable. The invalid ones caused by the failure to answer all the questions required. The data collected from 268 questionnaires were later used to analyse the bank situation.

Reliability Analysis

Before analyzing any data collected, the researchers had conducted the scale's reliability test for the main items of the questionnaire. In other words, they were 32 items (both CE and CP scores). For all of the items, The Cronbach's alpha value ranged from 0.836 to 0.848, which are greater than suggested criterion 0.7. The measurements can be considered reliable with the sample (See Appendices, Table 1, 2 & 3).

Testing Hypothesis 1 - There is a gap between customer perception and customer expectation towards the bank's SQ.

The researchers aimed at comparing three groups of respondents on five SQ dimensions, in terms of expectation and perception levels. Based on the 7-point Likert scale, the mean difference between the perception and the expectation statements measured the perception-expectation gap (P-E gap) (Coulthard, 2004). As suggested by Parasuraman *et al.* (1988), if the P-E gap has the value of 0, there is no difference between CE and CP towards the SQ; if CP-CE<0, then customer expected more than what the customer perceived the bank offered or the bank did not meet CE; if CP-CE>0, then the performance of the bank exceeded the customer expectation.

The researchers adopted the order of importance of five service quality dimensions as suggested by Parasuraman *et al*. (1988) when designing the questionnaire. Thus, reliability was the most critical dimension, followed by responsiveness, assurance, empathy and tangibles. In the scope of this research, the authors aimed at measuring the respondents' satisfaction of each dimension. Thus, only the percentage of answers with P-E gap ≥ 0 would be taken into consideration. As stated earlier, when P-E gap = 0, how customer perceived from what they offered by the bank matches with their expectation. Therefore, only P-E gap with value >0 would be discussed further.

In terms of the first dimension, *reliability*, group 3 had the highest percentage of respondent having P-E gap ≥ 1, especially in statement 2 and 3. 35.95% of group 2 also had P-E gap with regards to statement 3.

Evaluating the second dimension, *responsiveness*, group 3 continued ranking the highest percentage group. 18.3% of group 2 was notable when assessing statement 2. Even though P-E gap existed across all statements, the respondents were quite satisfied with the bank performance.

For the third dimension, *assurance*, answers of group 2 and 3 showed that a large number of respondents were not happy with the bank. Group 1 was quite satisfied except for the 26.56% who expected more from statement 3.

The results obtained when evaluating the fourth SQ dimension, *empathy,* showed that group 2 was the group with highest percentage of respondents having the gap.

Assessing the last SQ dimension, *tangibles*, group 2 expressed their opinions through the lowest percentage of respondents having the P-E gap. But it was not the case with group 1 and group 3, especially with three statements from 2 to 4.

Table 1: Percentage of respondents having answers with P-E gap ≥ 1 across all statements

Dimensions	No.	Statements	Percentage of respondents having answers with P-E gap ≥ 1		
			Group 1	Group 2	Group 3
Reliability	1	When the bank promises to do something by a certain times, it does so.	6.25	4.58	**27.45**
	2	When you have a problem, the bank shows a sincere interest in solving it.	10.94	15.03	**43.14**
	3	The bank performs the service right the first time.	9.38	**35.95**	**49.02**
Responsiveness	1	Employees in the bank give you prompt service.	4.69	5.23	**23.53**
	2	Employees in the bank are always willing to help you.	6.25	8.5	**19.61**
	3	Employees in the bank are never too busy to respond to your request.	7.81	18.3	**17.65**
Assurance	1	The behavior of the employees in the bank instils confidence in you.	4.69	**24.84**	**31.37**
	2	You feel safe in your transactions with the bank.	3.13	**32.68**	**25.49**
	3	Employees in the bank are consistently courteous with you.	26.56	**35.95**	**50.98**
	4	Employees in the bank have the knowledge to answer your questions.	9.38	**37.91**	**27.45**
Empathy	1	The bank has employees who give you individual attention.	17.19	**39.87**	**23.53**
	2	Employees of the bank understand your specific needs.	1.56	**18.3**	7.84
Tangibles	1	The bank has modern-looking equipment.	**20.31**	10.46	17.25
	2	The bank's employees appear neat.	**48.44**	15.03	33.33
	3	Materials associated with the service (such as pamphlets or statements) are visually appealing at the bank.	**26.56**	13.08	**54.9**
	4	The bank has convenient business hours.	**25**	13.72	**50.98**

The results could give the bank evidences to see how respondents perceived the bank's SQ and the importance of making necessary improvements to bridge their P-E gap.

The P-E gap width varied across all five dimensions of SQ. And it was necessary for the bank to know how wide it was in each statement. The percentage of each respondent group having

the P-E gap was subdivided into smaller groups based on the P-E gap value. For e.g., the gap value may be large, but the percentage of people having answers with that gap was small or it did not make much sense compared to the total number. It meant it might not be very necessary for the bank to give it the top priority in their agenda. This could be vice versa as well, say, the gap was small but the majority of respondents shared that opinion.

Table 2: Percentage of respondents having answers with P-E gap ≥ 0 across all statements of the first dimension - Reliability

1st Dimension	No.	Statements	The P-E gap width (≥ 0)		
			Group 1	Group 2	Group 3
Reliability	1	When the bank promises to do something by a certain times, it does so.	From 0 to 1	From 0 to 1	From 0 to 2
			50% had P-E gap=0	72.6% had P-E gap=0	45.1% had P-E gap=0
			6.25% had P-E gap=1	4.6% had P-E gap=1	27.5% had P-E gap=2
	2	When you have a problem, the bank shows a sincere interest in solving it.	From 0 to 1	From 0 to 2	From 0 to 2
			51.6% had P-E gap=0	7.71% had P-E gap=0	29.4% had P-E gap=0
			10.9% had P-E gap=1	14.4% had P-E gap=1	25.5% had P-E gap=1
			0.65% had P-E gap=2	17.7% had P-E gap=2	
	3	The bank performs the service right the first time.	From 0 to 1	From 0 to 2	From 0 to 2
			68.8% had P-E gap=0	39.2% had P-E gap=0	23.5% had P-E gap=0
			9.4% had P-E gap=1	30.1% had P-E gap=1	21.6% had P-E gap=1
			5.88% had P-E gap=2	27.5% had P-E gap=2	

Table 3: Percentage of respondents having answers with P-E gap ≥ 0 across all statements of the second dimension - Responsiveness

2nd Dimension	No.	Statements	The P-E gap width (≥ 0)		
			Group 1	Group 2	Group 3
Responsiveness	1	Employees in the bank give you prompt service.	From 0 to 1	From 0 to 2	From 0 to 2
			45.3% had P-E gap=0	41.2% had P-E gap=0	49.0% had P-E gap=0
			4.7% had P-E gap=1	4.6% had P-E gap=1	17.7% had P-E gap=1
				0.65% had P-E gap=2	5.88% had P-E gap=2
	2	Employees in the bank are always willing to help you.	From 0 to 1	From 0 to 1	From 0 to 1
			60.9% had P-E gap=0	49.7% had P-E gap=0	66.7% had P-E gap=0
			6.3% had P-E gap=1	8.5% had P-E gap=1	19.6% had P-E gap=1

Table 3: Percentage of respondents having answers with P-E gap ≥ 0 across all statements of the second dimension - Responsiveness

2nd Dimension	No.	Statements	The P-E gap width (≥ 0)		
			Group 1	Group 2	Group 3
	3	Employees in the bank are never too busy to respond to your request.	From 0 to 1	From 0 to 2	From 0 to 1
			48.4% had P-E gap=0	30.1% had P-E gap=0	70.6% had P-E gap=0
			7.8% had P-E gap=1	17.0% had P-E gap=1	17.7% had P-E gap=1
				1.31% had P-E gap=2	

Table 4: Percentage of respondents having answers with P-E gap ≥ 0 across all statements of the third dimension - Assurance

3rd Dimension	No.	Statements	The P-E gap width (≥ 0)		
			Group 1	Group 2	Group 3
Assurance	1	The behavior of the employees in the bank instils confidence in you.	From 0 to 1	From 0 to 2	From 0 to 2
			62.5% had P-E gap=0	33.99% had P-E gap=0	51.0% had P-E gap=0
			4.69% had P-E gap=1	20.3% had P-E gap=1	19.6% had P-E gap=1
				4.58% had P-E gap=2	11.8% had P-E gap=2
	2	You feel safe in your transactions with the bank.	From 0 to 1	From 0 to 2	From 0 to 1
			42.2% had P-E gap=0	31.4% had P-E gap=0	66.7% had P-E gap=0
			3.13% had P-E gap=1	32.03% had P-E gap=1	25.5% had P-E gap=1
				0.65% had P-E gap=2	
	3	Employees in the bank are consistently courteous with you.	From 0 to 2	From 0 to 2	From 0 to 2
			54.7% had P-E gap=0	37.3% had P-E gap=0	43.1% had P-E gap=0
			20.3% had P-E gap=1	34.6% had P-E gap=1	35.3% had P-E gap=1
			6.25% had P-E gap=2	1.31% had P-E gap=2	15.7% had P-E gap=2
	4	Employees in the bank have the knowledge to answer your questions.	From 0 to 1	From 0 to 2	From 0 to 1
			32.8% had P-E gap=0	49.7% had P-E gap=0	56.9% had P-E gap=0
			9.38% had P-E gap=1	34.6% had P-E gap=1	27.5% had P-E gap=1
				3.27% had P-E gap=2	

Table 5: Percentage of respondents having answers with P-E gap ≥ 0 across all statements of the fourth dimension - Empathy

4th Dimension	No.	Statements	The P-E gap width (≥ 0)		
			Group 1	Group 2	Group 3
Empathy	1	The bank has employees who give you individual attention.	From 0 to 2	From 0 to 3	From 0 to 2
			39.06% had P-E gap=0	46.41% had P-E gap=0	52.94% had P-E gap=0
			12.5% had P-E gap=1	30.72% had P-E gap=1	17.65% had P-E gap=1
			4.69% had P-E gap=2	8.5% had P-E gap=2	5.88% had P-E gap=2
				0.65% had P-E gap=3	
	2	Employees of the bank understand your specific needs.	From 0 to 1	From 0 to 2	From 0 to 1
			34.38% had P-E gap=0	51.63% had P-E gap=0	54.9% had P-E gap=0
			1.56% had P-E gap=1	14.38% had P-E gap=1	7.84% had P-E gap=1
				3.92% had P-E gap=2	

Table 6: Percentage of respondents having answers with P-E gap ≥ 0 across all statements of the fifth dimension - Tangibles

5th Dimension	No.	Statements	The P-E gap width (≥ 0)		
			Group 1	Group 2	Group 3
Tangibles	1	The bank has modern-looking equipment.	From 0 to 2	From 0 to 1	From 0 to 1
			46.9% had P-E gap=0	66.0% had P-E gap=0	51.0% had P-E gap=0
			18.8% had P-E gap=1	10.5% had P-E gap=1	17.7% had P-E gap=1
			1.56% had P-E gap=2		
	2	The bank's employees appear neat.	From 0 to 2	From 0 to 3	From 0 to 1
			39.1% had P-E gap=0	64.1% had P-E gap=0	37.3% had P-E gap=0
			32.8% had P-E gap=1	13.1% had P-E gap=1	33.3% had P-E gap=1
			15.6% had P-E gap=2	1.96% had P-E gap=2	
				1.31% had P-E gap=3	

Table 6: Percentage of respondents having answers with P-E gap ≥ 0 across all statements of the fifth dimension - Tangibles

5th Dimension	No.	Statements	The P-E gap width (≥ 0)		
			Group 1	Group 2	Group 3
	3	Materials associated with the service (such as pamphlets or statements) are visually appealing at the bank.	From 0 to 2	From 0 to 2	From 0 to 2
			42.2% had P-E gap=0	46.4% had P-E gap=0	35.3% had P-E gap=0
			25% had P-E gap=1	8.5% had P-E gap=1	43.1% had P-E gap=1
			1.56% had P-E gap=2	4.6% had P-E gap=2	11.8% had P-E gap=2
	4	The bank has convenient business hours.	From 0 to 1	From 0 to 2	From 0 to 1
			62.5% had P-E gap=0	65.4% had P-E gap=0	43.1% had P-E gap=0
			12.5% had P-E gap=1	11.8% had P-E gap=1	51.0% had P-E gap=1
			12.5% had P-E gap=2	1.96% had P-E gap=2	

Testing hypothesis 2: There is association between age/ gender of customers and the frequency of their bank visits.

To serve their customers best, the bank managers need to know how frequently their customers visit the bank branch to allocate the resources (i.e., capital, labor) in the bank more effectively. The researchers also needed that information to analyse the profile of the local bank's customer in relation to their frequency of the bank visits. Besides, the frequency of their bank visits definitely influence their perception towards the bank's SQ. The more they come, the more precise their perceptions are.

Respondents were grouped under three categories:

Group 1: Respondents visited the branch once a week or more often
Group 2: Respondents visited the branch less often than once a week but once a month or more
Group 3: Respondents visited the branch less often than once a month

The findings provided an overview of the branch visit frequency level of respondents. Group 2 was the largest group with 57.1%, followed by Group 1 with 23.9%. The group with the lowest frequency was Group 3 with 19%.

Table 7: Frequency distribution of respondents		
Frequency level	No. of respondents	Percent
Once a week or more often	64	23.9
Less often than once a week but once a month or more	153	57.1
Less often than once a month	51	19
Total	268	100

The researchers also employed the Chi-square test to check the "age and frequency" as well as the "gender and frequency" relationship.

Age – Frequency relationship across 6 age groups

The researcher employed Chi-square test here. The significant value was 0.000 (<0.01), and by the usual decision criteria the null hypothesis stating that there was "no association exists between age and frequency level" was accepted. In other words, no significant association at 1% significance level (because this overrides 5%) existed between respondents' age and their frequency level.

Table 8: Chi-Square Tests (Age vs. Frequency level)			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	114.430(a)	8	.000
Likelihood Ratio	120.530	8	.000
Linear-by-Linear Association	4.057	1	.044
N of Valid Cases	268		

Gender – Frequency relationship

Chi-square test was used again here. The significant value was 0.117 (>0.05), and by the usual decision criteria the hypothesis stating that there was "no association exists between gender and frequency level" was rejected. In other words, the chi-square test of independence of the relationship between gender and frequency level found a statistically significant relationship between the variables. It can be seen clearly that 17.3% of Group 1, 63.5% of Group 2 and 19.2% of Group 3 were males while 28% of Group 1, 53% of Group 2 and 18.9% of Group 3 were females.

Table 9: Sex vs. Frequency cross-tabulation						
			Frequency			Total
			Once a week or more often	Once a month or more	Less often than once a month	
Sex	Male	Count	18	66	20	104
		Expected Count	24.8	59.4	19.8	104.0
		% within Sex	17.3%	63.5%	19.2%	100.0%
		% within Frequency`	28.1%	43.1%	39.2%	38.8%
		% of Total	6.7%	24.6%	7.5%	38.8%
	Female	Count	46	87	31	164
		Expected Count	39.2	93.6	31.2	164
		% within Sex	28.0%	53.0%	18.9%	100.0%
		% within Frequency	71.9%	56.9%	60.8%	61.2%
		% of Total	17.2%	32.5%	11.6%	61.2%
	Total	Count	64	153	51	268
		Expected Count	64.0	153.0	51.0	268.0
		% within Sex	23.9%	57.1%	19.0%	100.0%
		% within Frequency	100.0%	100.0%	100.0%	100.0%
		% of Total	23.9%	57.1%	19.0%	100.0%

Table 10: Chi-Square Tests (Gender vs. Frequency level)			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.287(a)	2	.117
Likelihood Ratio	4.410	2	.110
Linear-by-Linear Association	1.821	1	.177
N of Valid Cases	268		

The Chi-square test results clearly suggested that there was no association between age and frequency level of respondents while there was an association between respondents' gender and their frequency level.

Other findings

The researchers also took a further step to find out the distribution pattern of respondents in terms of age and gender. This demographic information was analyzed for the purpose of giving the bank managers another reference source for better decisions.

The age distribution showed that there were 5 age groups instead of 6 (Table 11). The majority (61.6%) of the bank customers were young people (31.7%) between 24 to 35 years old and middle-aged people (29.9%) between 36 to 49 years old. Respondents between 50 and 59 made up the third largest group (15.7%), followed by the youngest respondent group between 18 and 23 (13.4%). The smallest group (9.3%) were people over 60 years old.

Table 11: Age distribution of respondents

Age Groups	No. of respondents	Percent
Under 18	0	0
18-23	36	13.4
24-35	85	31.7
36-49	80	29.9
50-59	42	15.7
60+	25	9.3
Total	268	100.0

It can be seen clearly from the gender distribution that out of 268 bank customers 61.2% were females while males accounted for 38.8%.

Table 12: Age and gender distribution of respondents in 3 groups

Group	Frequency level	Group (%)	Age group	Age (%)	Gender	Gender (%)
1	Once a week or more often	23.9	Under 18	0	Male	28.1
			18-23	1.6	Female	71.9
			24-35	56.3		
			36-49	40.6		
			50-59	1.6		

Table 12: Age and gender distribution of respondents in 3 groups						
Group	Frequency level	Group (%)	Age group	Age (%)	Gender	Gender (%)
2	Less often than once a week but once a month or more	57.1	Under 18	0	Male	43.1
			18-23	11.1	Female	56.9
			24-35	30.1		
			36-49	33.3		
			50-59	11.1		
			60+	14.4		
3	Less often than once a month	19	Under 18	0	Male	39.2
			18-23	35.3	Female	60.8
			24-35	5.9		
			36-49	5.9		
			50-59	47.1		
			60+	5.9		

From the above statistical numbers, the researchers could conclude that the majority of respondents with high frequency level were the second youngest group (24-35) and middle-aged people (36-49), followed by other groups. In terms of gender, female respondents always accounted for the majority compared to male ones.

CONCLUSION

This study found that P-E gaps of different widths existed across all five SQ dimensions. Though the majority of respondents were quite satisfied with what they perceived from the bank, the gap was not too broad to be bridged. The width of the gap (or the value of P-E gap) varied depending on each particular aspect of these five SQ dimensions. It is true that no bank can be the best for all customers (Zineldin, 1996). In addition to the first finding, the study proved that there was an association between gender and frequency level of respondents while there was no association between age and the frequency of their bank visits.

Besides the main findings, the research also produced some other findings giving the bank a deeper insight into their customers. The study helped the bank management team to know that (1) the majority of respondents with high frequency level were the second youngest group (24-35) and middle-aged people (36-49); (2) female respondents (61.2%) always accounted for the majority compared to male ones (38.8%).

RESEARCH CONTRIBUTIONS

SERVQUAL framework has not been applied in developing Asian countries as widely as it has been in developed countries such as the U.S. or European countries. Throughout an in-depth study of the application of SERVQUAL as a SQ measuring tool in a real organizational setting, this research contributes to knowledge to some extent.

To a lesser or greater degree, this study was also beneficial for the bank managers. They could gain deeper understanding of SQ dimensions concerned by bank customers. Also, the study provided them with further information of the frequency level of customers in association to age and gender. This could be employed as the background to develop the best suited strategies to maximise customer satisfaction.

MANAGERIAL IMPLICATIONS

In the light of the literature mentioned in the early part of this paper and the findings revealed from the customer survey, the researchers strongly suggested that the bank should:

- allocate more resources to upgrade the service quality offered to the most frequent customer groups.
- bridge the present P-E gaps to fully satisfy and retain the customers in the era which they are vital to the business success (Quinn & Humble, 1993).
- develop the right strategies to please different groups of customers based on what they value and expect, in other words, this is the way to augment the services and differentiate the bank from its competitors.
- effectively communicate with its customers to pave the way for managing and exceeding their expectations (Groth & Dye, 1999).
- periodically conduct customer surveys to best use this invaluable source of information for generating continuous SQ improvement (Lin & Jones, 1997) as required by the nature of financial services (Rose & Watkins, 1997).

LIMITATIONS

It is difficult to find a framework with a set of SQ dimensions that can apply across culture while cultural differences can give the same statement different meanings when it is read by different people (Winsted, 1997). To improve the model validity and to reduce the risk of cross-cultural application of this model when applied in Vietnamese cultural context, a pilot study was carried out before launching the main survey. However, it is still the weakness of this study.

Another weakness of this study is the use of a convenience sample. It is because people who did not come to the bank during the three weeks did not get an equal chance to take the survey.

The other limitation related to the fact that the researchers relied on data provided by the local bank. The researchers were in the U.K. during the time the data collection process took place. In an effort to control the situation and minimise the limitation of this research, they forwarded the questionnaire design and clearly stated the requirements of the sampling plan to the local bank. However, it was impossible to say for sure that there were no mistakes made all the way through this process.

FUTURE RESEARCH DIRECTIONS

The relative importance of SQ dimensions in customers' eyes was identified from the primary research results. This suggested the researchers to look further into the nature of each SQ dimension and pay more attention to the most important service aspects ranked by customers. In doing so, the services can be improved in the directions which customers highly value.

Vietnamese people belong to high-context culture (Rodrigues, 1997). This makes the researchers think that the answers collected from Vietnamese customers in their study are less straightforward than the answers other studies found for the western customers?

National culture plays an important role in the way customers judge the services provided or the company's efforts in satisfying the needs and wants of customers (Zeithaml & Bitner, 2003; Laroche *et al.*, 2004). Further studies should be done to find out how culture is so powerful, what kind of cultural elements have magnified the impact on the way customers perceive SQ in Vietnam and how to utilise these factors to develop the best suited strategies to minimise the P-E gap and maximise the bank's ability in satisfying its customers.

Customers normally think that price is an indicator of quality. For example, they may think that the more they pay, the better the service should be (Kangis & Passa, 1997). Thus, the price factor and its influences on CE should also be taken into consideration.

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APPENDICES

Here is the output of the Reliability test for 32 main items in the questionnaire (obtained from SPSS)

Table 1: Case Processing Summary			
		N	%
Cases	Valid	268	100.0
	Excluded(a)	0	.0
	Total	268	100.0

Table 2: Reliability Statistics	
Cronbach's Alpha	N of Items
.847	32

Table 3: Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
S1D1E	176.41	145.778	.355	.843
S1D1P	176.68	140.557	.515	.838
S2D1E	176.69	143.952	.414	.841
S2D1P	177.07	134.460	.532	.836
S3D1E	176.57	148.830	.164	.847
S3D1P	176.60	140.922	.377	.842
S1D2E	176.28	147.049	.320	.844
S1D2P	177.07	135.190	.477	.839
S2D2E	176.10	150.049	.164	.847
S2D2P	176.54	143.867	.349	.843
S3D2E	176.37	147.133	.321	.844
S3D2P	176.97	138.467	.414	.841
S1D3E	176.44	147.813	.243	.845
S1D3P	176.65	141.696	.423	.840
S2D3E	176.37	149.327	.188	.846
S2D3P	176.63	142.975	.389	.841
S3D3E	176.77	143.203	.509	.839
S3D3P	176.63	144.662	.386	.842
S4D3E	176.39	146.725	.362	.843
S4D3P	176.44	145.438	.290	.844
S1D4E	176.82	144.507	.349	.843

Table 3: Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
S1D4P	176.83	141.826	.354	.843
S2D4E	176.44	144.862	.459	.841
S2D4P	177.06	135.206	.480	.838
S1D5E	176.60	144.428	.348	.843
S1D5P	176.77	141.315	.395	.841
S2D5E	176.46	147.897	.257	.845
S2D5P	176.46	146.571	.290	.844
S3D5E	176.75	145.025	.388	.842
S3D5P	177.03	138.692	.416	.841
S4D5E	176.48	150.265	.101	.848
S4D5P	176.44	147.857	.212	.846

Table 4: Explanation of A		
Abbreviation	Explanation	Statement content
S1D1E	Customer Expectation towards Statement 1, Dimension 1	When the bank promises to do something by a certain times, it does so.
S1D1P	Customer Perception towards Statement 1, Dimension 1	
S2D1E	Customer Expectation towards Statement 2, Dimension 1	When you have a problem, the bank shows a sincere interest in solving it.
S2D1P	Customer Perception towards Statement 2, Dimension 1	
S3D1E	Customer Expectation towards Statement 3, Dimension 1	The bank performs the service right the first time.
S3D1P	Customer Perception towards Statement 3, Dimension 1	
S1D2E	Customer Expectation towards Statement 1, Dimension 2	Employees in the bank give you prompt service.
S1D2P	Customer Perception towards Statement 1, Dimension 2	
S2D2E	Customer Expectation towards Statement 2, Dimension 2	Employees in the bank are always willing to help you.
S2D2P	Customer Perception towards Statement 2, Dimension 2	
S3D2E	Customer Expectation towards Statement 3, Dimension 2	Employees in the bank are never too busy to respond to your request.
S3D2P	Customer Perception towards Statement 3, Dimension 2	
S1D3E	Customer Expectation towards Statement 1, Dimension 3	The behavior of the employees in the bank instils confidence in you.
S1D3P	Customer Perception towards Statement 1, Dimension 3	
S2D3E	Customer Expectation towards Statement 2, Dimension 3	You feel safe in your transactions with the bank.
S2D3P	Customer Perception towards Statement 2, Dimension 3	
S3D3E	Customer Expectation towards Statement 3, Dimension 3	Employees in the bank are consistently courteous with you.
S3D3P	Customer Perception towards Statement 3, Dimension 3	

Table 4: Explanation of A		
Abbreviation	Explanation	Statement content
S4D3E	Customer Expectation towards Statement 4, Dimension 3	Employees in the bank have the knowledge to answer your questions.
S4D3P	Customer Perception towards Statement 4, Dimension 3	
S1D4E	Customer Expectation towards Statement 1, Dimension 4	The bank has employees who give you individual attention.
S1D4P	Customer Perception towards Statement 1, Dimension 4	
S2D4E	Customer Expectation towards Statement 2, Dimension 4	Employees of the bank understand your specific needs.
S2D4P	Customer Perception towards Statement 2, Dimension 4	
S1D5E	Customer Expectation towards Statement 1, Dimension 5	The bank has modern-looking equipment.
S1D5P	Customer Perception towards Statement 1, Dimension 5	
S2D5E	Customer Expectation towards Statement 2, Dimension 5	The bank's employees appear neat.
S2D5P	Customer Perception towards Statement 2, Dimension 5	
S3D5E	Customer Expectation towards Statement 3, Dimension 5	Materials associated with the service (such as pamphlets or statements) are visually appealing at the bank.
S3D5P	Customer Perception towards Statement 3, Dimension 5	
S4D5E	Customer Expectation towards Statement 4, Dimension 5	The bank has convenient business hours.
S4D5P	Customer Perception towards Statement 4, Dimension 5	

INTERNATIONAL OUTSOURCING IN EMERGING AND DEVELOPED ECONOMIES: AN EMPIRICAL STUDY

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ABSTRACT

International outsourcing has gained its gravity and popularity in the modern international business operations. A country's degree of outsourcing involvement depends on both the economic and non-economic factors. In this study, we use five exogenous variables, namely, country risk, real growth of GDP, average hourly wage, tertiary education, and Internet access rate, to investigate economic impacts on the decisions of international outsourcing. Ninety-six countries, categorized into emerging and developed country groups based on their income level, are evaluated.

Our empirical findings suggest that only three variables are statistically significant: tertiary education and Internet access rate in the emerging economies, and the average hourly wage in the developed nations. In the emerging markets, an increase in post-secondary education tends to attract less international outsourcing, while the Internet infrastructure advancement most likely draws more foreign investment. Higher average hourly wage, typically for the skilled and professional tasks in the developed markets, tends to attract more international outsourcers.

INTRODUCTION

International outsourcing has become increasingly common in modern international business operations. As Bartels (2005) asserts, the markets for international outsourcing currently expand at the compound annual growth rates of between 15 percent and 40 percent, with emerging economies such as China and India taking the lion's share of outsourcing contracts to the developing nations (also see Feenstra and Hanson, 1996).

International outsourcing, recently a major foreign investment option chosen by multinational enterprises, grows rapidly in significance thanks to the incentives of the firms to strategically reduce their production costs, and/or to increase their international market potential and exposure. Companies selecting an outsourcing destination may depend on many economic and non-economic factors. In this study, we attempt to assess the determinants of international outsourcing and their economic influence on the outsourcing decisions. Specifically, we scrutinize five variables including the country-specific risk, real GDP growth, average hourly wage, higher

education participation, and Internet technology infrastructure. Using a regression model, the economic impacts of these variables on the outsourcing activities are analyzed.
The entire study is structured as follows. After the introduction, section (II) summarizes the literature review. Section (III) sketches the model and methodology. In section (IV), empirical findings are analyzed and reported. The concluding remarks are made in the last section.

REVIEW OF LITERATURE

Academic dialogue on international outsourcing has focused on a spectrum from the production-cost analysis, staffing policy and employment issues, market opportunity and potential, to international business management.

Cost reduction is the first prominent incentive to draw multinational corporations toward outsourcing abroad. Pugel (2006), and Doyle and Tapper (2001) commented that international firms often can save up to fifty percent of their operational costs by engaging outsourcing activities. Especially for the reduction of labor cost, Rajan and Wei (2004), Friedman (2005), Bryant (2006), and Djavanshir (2005) revealed multinational companies outsourcing overseas are able to recruit cheaper but well-trained workers from less-developed and developing nations such as India and China (also see enotes.com (2006)).

Firms undertaking international outsourcing can experience an improvement in predictability of costs and a higher accessibility to the cash flow. Documented in Doyle and Tapper (2001), Frankland (2004), and Landis et al (2005), better prediction of management and operation costs is observed to result from international ventures between outsourcers and outsourcees. It allows the outsource-participants to transfer and/or share the market risk, the risk of competition, and the regulation from government.

Staffing policy in the multinational corporations is observed to be more dynamic and flexible. Bryant (2006) stated that such staffing dynamics and flexibility enhance cost control both in the headquarters of the home country and in the company's foreign affiliates (also see enotes.com (2006)). Doyle and Tapper (2001), Engardio et al (2006) stressed that international outsourcing in general results in better job specification and specialization, allowing firms to concentrate more on their core competencies and to generate more money-making activities.

International staffing by multinational companies and increasing degree of globalization through outsourcing also shorten the product life cycles. Djavanshir (2005), Bryant (2006), Doyle and Tapper (2001), Friedman (2005), Engardio at el (2006), and Wild at el (2007) indicated that international staffing in different regions and in different time zones around the world allows firms to reduce time for product design and improve timely business operations. Products are introduced and sold to the markets sooner at lower cost. Global staffing strengthens a firm's ability to respond quickly to changing markets, fluctuating demand cycles, and to rising competition.

Does international outsourcing reduce employment or create more jobs? Feenstra and Hanson (1996a, 1996b), Bhagwati et al (2004), Rajan and Wei (2004), Amiti and Wei (2004), Dhavanshir (2005), Friedman (2005), and Global Insight (2005) asserted that outsourcing activities likely leads to job creation. A case study of developed nations, including the U.S., found that more professional and high-wage jobs (in fields such as medical, legal, computer/information technology, and industrial engineering) were created. Although low-wage manual jobs were relocated to the developing/less-developed countries, the unemployment rate in these developed economies was observed to have an insignificant change.

Ferrell (2003), Wachter (2006), Rajan and Wei (2004), Engardio et al (2006), Bryant (2006), Bhagwati et al (2004), and Friedman (2005) suggested that international outsourcing tends to result in higher productivity and efficiency, especially for the outsourcers. The higher level of efficacy includes better business planning, higher level of operational reliability, relatively rapid implementation of new strategies and initiatives, cheaper product prices, better customer service and product quality, and economies-of-scale production. Bhagwati et al (2004), Mann (2003), and Global Insight (2005) meanwhile observed the tendency of real wage increase which leads to higher national income.

Finally, Pugel (2006) claimed that international outsourcing creates mutual benefits for both outsourcees and outsourcers, based on the theory of comparative advantage. Outsourcees, typically the developing or less-developed economies such as China and India, experience growth of employment in the manufacturing and service industries. Outsourcers in the developed countries such as the U.S. benefit from enjoying lower-cost foreign provision of manufacturing products and services, while being able to specialize in the high-skill and high-value product design and production. Friedman (2005) commented it as a "win-win" outcome for the U.S. where "the American knowledge workers feel like they have more competition, and they do" (p.229). Through global outsourcing, U.S. firms become "more productive, cost-efficient and flexible than our competitors with better customer services" (Engardio, 2006, p.3) (also see Landis et al (2005)).

MODEL AND METHODOLOGY

As analyzed in Moosa and Cardak (2006), Bevan and Estrin (2000), and Nonnemberg and Cardoso de Mendonca (2004), the decision for foreign direct investment (FDI) activities by multinational enterprises is subject to common determinants including a country's level of development, the country-specific risks, the country-specific foreign trade and commercial policies, and other social, political and economic factors. Specifically, in the analysis of Moosa and Cardak (2006), foreign direct investment is measured by the following equation:

$$FDI_i = \beta_0 + \sum^n_{j=1} \beta_j x_{ji} + \varepsilon_1 \qquad (1)$$

where FDI_i is inward foreign direct investment flows into country i, and x_{ji} is the jth explanatory variable such as the above-mentioned common determinants of country i. Because international outsourcing currently is counted as one of the major FDI activities, based on their framework, we formulate our outsourcing model in a functional form of:

$$OUTSC = f(\text{Country Risk, GDP Growth, Unit Wage, Tertiary Education, Internet Access}) \quad (2)$$

where the regressant, OUTSC, using the inward of FDI stock as a proxy, depends on five exogenous variables. Country Risk is a composite indicator including the country-specific political, economic and financial risks. GDP Growth is in a real rate to measure a nation's level of development. Unit Wage represents the average hourly labor cost in every sample nation, which is denominated in U.S. dollar converted by the official exchange rate. Tertiary Education measures the size of population with the post-secondary academic degree (in the unit of per 1000 habitants). It indicates a country's overall level of education. Internet Access captures a nation's degree of development in the information technology infrastructure, evaluated by the Internet users per 1000 habitants.

Ninety-six sample economies are estimated. They are dichotomized into two groups based on the rank of each country's development classified by the World Bank. The first group, categorized as the "low- and lower-middle-income countries", contains forty-three emerging economies1. The second group, categorized as the "upper-middle- and high-income countries", comprises fifty-three industrial/developed nations2.

The source of data except for the unit wage is from the *United Nations Conference on Trade and Development* (UNCTAD) database. To avoid inconsistency in the data units, these data are standardized in "scores" using the formula in UNCTAD,

$$S(x_{ij}) = (x_{ij} - x_{imin}) / (x_{imax} - x_{imin}) \quad i = 1,2; \quad j = 1,2,\ldots,n_I \quad (3)$$

where $S(x_{ij})$ is the score of the variable x for country j in group i. The statistics of hourly wage rate across countries are retrieved from the *International Labor Organization.* They are verified by that of individual country's official government websites. All these wages are adjusted in an average hourly rate and standardized in score.

EMPIRICAL ANALYSIS

Table (1) summarizes the simple statistics of international outsourcing across two country groups. They are un-scored (pre-standardized) and reported in minimum, mean, and maximum levels. With respect to the outsourcing activities, the mean of outsourcing volume from the upper-middle/high-income countries is threefold higher than that of low/lower-middle income

economies. However, the maximum volume found in the low/lower-middle-income group is twice as much as that of upper-middle/high-income counterparts.

For the composite risk, as expected, the upper-middle/high-income group encounters remarkably lower risk, which is believed to be due to its higher level of political, economic, and financial stability. The average real GDP growth per annum in the developed economies is slightly over the normal rate, while emerging economies have evidently outperformed. Among all of the emerging markets, Zimbabwe is the only nation having the negative growth (-3.3084), whereas Azerbaijan has the highest growth performance at a rate of 9.948, followed by China at 8.8327 percent (not shown in the table).

The average hourly wage in the low/lower-middle-income nations is one-twentieth of that in the upper-middle/high-income group. The lowest hourly pay is found in Mongolia (US$0.0005) and in South Africa (US$1.3542) representing their country group; contrast to the highest unit wage in Peru ($4.6043) and in Denmark ($47.1215), respectively. The population with post-secondary educational degree in the lower-developed nations, on average, is two-fifths of that in the developed countries. Finally, the Internet environment in upper-middle/high-income countries is unambiguously more developed than that in their counterparts. The number of Internet users is, on average, nearly five times as many as that in the low/lower-middle income group.

Table 1: Simple Statistics of International Outsourcing across Countries, 2005/2006

	Low and Lower-Middle-Income Countries			Upper-Middle and High-Income Countries		
Minimum	Mean	Maximum	Minimum	Minimum	Mean	Maximum
Outsourcing (Inward FDI Stock in million US$)a	131.1402	44,348	1,503,324	985.1956	124,456	713,144
Country Risk (Composite)b	21.25	35.14535	56.5	7.5	20.92038	33.5
GDP Growth (Real Rate)a	-3.3084	4.05039	9.948	0.6989	3.60838	8.033
Hourly Wage (Average, US$)	0.0005	0.75229	4.6043	1.3542	14.09769	47.1215
Tertiary Education (per 1000 habitants)	0.0404	1.5853	5.2460	0.6627	3.6808	6.1020
Internet Users (per 1000 habitants)	1.9381	95.75971	697.3438	9.8867	451.81468	862.657

a: Data are averaged from 2003 to 2005.
b: Large number represents high risks; small number represents low risks.

Table (2a) and (2b) report the collinearity of all explanatory variables for two distinct country groups using the correlation coefficient matrices. As shown in Table (2a), the Country Risk

variable in the low- and lower-middle-income economies has a negative relationship with all other explanatory variables, which is inconsistent with that in the developed nations in Table (2b). The Country Risk cross Tertiary Education in the emerging markets experiences the highest collinearity (-0.55987), whereas it is found very low and positive (0.00439) in the upper-middle/high-income countries.

The (real) GDP growth moves indirectly with the country risk and (average) hourly wage, but directly with the tertiary education and Internet usage in the developing countries. It is negatively related to all other variables in the developed countries. The (average) hourly wage acts consistently in both country groups, where it varies inversely with country risk and the GDP growth, but positively with the tertiary education and Internet variables. The collinearity between the tertiary education and hourly wage appears to be much higher in the low/lower-middle-income group than that in its higher-income counterpart. Tertiary education and the GDP growth counter-vary in the two country groups, nevertheless, in fairly low correlation. Finally, although the Internet indicator is not highly correlated to other variables in the emerging nations, it is strongly affected by the country risk and hourly wage in the developed economies.

An observation worth noting is that the correlations among all of the explanatory variables are less than 0.68 in absolute value. As Belsley, Kuh & Welsch (1980) suggested that the rule of thumb for problematic collinearity should be greater than or equal to 0.9, the collinearity in our model is not an issue.

Table 2a: Correlation Coefficients for Emerging Countries: Explanatory Variables

Country Risk	GDP Growth	Hourly Wage	Tertiary Education	Internet Users	
Country Risk	1.00000	-0.53208	-0.46665	-0.55987	-0.15491
GDP Growth		1.00000	-0.06170	0.07531	0.12466
Hourly Wage			1.00000	0.50250	0.12809
Tertiary Education				1.00000	0.25839
Internet Users					1.00000

Table 2b: Correlation Coefficients for Developed Countries: Explanatory Variables

	Country Risk	GDP Growth	Hourly Wage	Tertiary Education	Internet Users
Country Risk	1.00000	-0.03677	-0.67072	0.00439	-0.63246
GDP Growth		1.00000	-0.29119	-0.00335	-0.29101
Hourly Wage			1.00000	0.08216	0.65418
Tertiary Education				1.00000	0.25037
Internet Users					1.00000

Table (3) tabulates the regression results of the international outsourcing model. Most of these parameters across two groups disagree in sign, except for the variables of Tertiary Education and Internet users. For the low/lower-middle income nations, the negative relationship indicates that lower country risks tend to attract more foreign investors, namely, the "insourcers". However, the upper-middle/high-income nations are likely to draw FDI inflows, even though they may be under higher country risk, because these developed economies are endowed with relatively advanced and stable political, economic and financial infrastructures.

Further, higher growth of GDP in the emerging countries is liable to invite more FDI inflows. That is not evident in the group with upper-middle/high income. For the average wage rate, the low unit wage in the emerging markets is relatively appealing to the foreign investors. Among the developed nations, on the other hand, the high wage level is a significant factor to encourage insourcing (i.e. FDI inflows), which is believed that the incentives of foreign investment in these countries are to acquire the professional skills. The Tertiary Education estimate, which is statistically significant, shows that multinational corporations outsourcing in the emerging markets typically hire cheaper labor for the unskilled/labor-intensive tasks without the requirement for post-secondary education. Nonetheless, it is insignificant in the developed markets.

Finally, emerging markets with progressive development in technological infrastructure significantly results in more inward FDI activities. This positive relationship is not robust in the group of upper-middle/high income economies, most likely because of their comparably advanced technological environment.

In general, the small Variance Inflation Factor (VIF) in Table (3) confirms our previous findings in the correlation coefficient matrices (in Table 2(a) and 2(b)), in which the collinearity is not problematic among explanatory variables. The overall F-statistics show that the regression model for both country-group studies is appropriate at the conventional confidence level. However, the "goodness of fit" R2 and adjusted R2 appear to be higher in the analysis of emerging countries, reflecting in a smaller overall standard error.

Table 3: Regression Results for International Outsourcing: Country Group Analysis
Dependent Variable: Inward FDI Stock

Parameters	Emerging Countries			Developed Countries		
	Estimates	t-value	VIF	Estimates	t-value	VIF
Constant	0.01412	0.15	0	-0.01699	-0.08	0
Country Risk	-0.08412	-0.82	2.71338	0.20376	0.94	2.60644
GDP Growth	0.01418	0.17	1.79296	-0.14089	-0.91	1.36225
Hourly Wage	-0.01792	-0.25	1.63100	0.31905***	1.75	2.40484
Tertiary Education	-0.22650*	-4.16	1.79959	-0.12599	-1.02	1.14642
Internet Users	0.82247*	11.45	1.09089	0.23587	1.32	2.43592

Table 3: Regression Results for International Outsourcing: Country Group Analysis Dependent Variable: Inward FDI Stock		
Number of observations	43	53
F-test	27.89*	3.09**
R2	0.7903	0.2474
Adjusted R2	0.7619	0.1673
Overall standard error	0.07479	0.21338
*: 1% of the significant level; **: 5% of the significant level; ***: 10% of the significant level.		

CONCLUDING REMARKS

In recent decades, the growing interest in international outsourcing by multinational enterprises has diversified international business activities. Academic research shows that the prominent driving forces for international outsourcing stem from the incentives of cost reduction, flexibility in staffing policy, improvement in business management including transferring the risks of markets and long-term global competitiveness, broader market opportunity, and the skill-specific employment creation.

Our empirical model investigates the economic impacts of five economic and non-economic variables on the decision of international outsourcing across ninety-six economies. The analytical findings reveal that only three variables are statistically robust: tertiary education and Internet access rate in the emerging economies, and the average hourly wage in the developed nations. In the emerging markets, an increase in post-secondary education tends to be less attractive to international outsourcing, while the Internet infrastructure advancement most likely draws more outsourcing activities. Higher average hourly wage typically for skilled and professional tasks in the developed markets, on the other hand, is inclined to invite more investment from the international outsourcers.

ENDNOTES

1 Low/lower-middle-income countries group: Gambia, Ghana, Guinea, Haiti, India, Kenya, Madagascar, Malawi, Mali, Mongolia, Nigeria, Pakistan, Senegal, Sierra Leone, Togo, Uganda, United Republic of Tanzania, Vietnam, Zambia, Zimbabwe, Albania, Armenia, Azerbaijan, Belarus, Cameroon, China, Colombia, Dominican Republic, Ecuador, Egypt, El Salvador, Guyana, Honduras, Jamaica, Jordan, Moldova Republic, Nicaragua, Paraguay, Peru, Philippines, Sri Lanka, Thailand, Ukraine.

2 Upper-middle/high-income countries group: Argentina, Botswana, Brazil, Bulgaria, Chile, Costa Rica, Croatia, Hungary, Kazakhstan, Latvia, Lithuania, Mexico, Panama, Poland, Romania, Russian Federation, Slovakia, South Africa, Turkey, Australia, Austria, Bahrain, Belgium, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hong Kong, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, Malta, Netherlands, New Zealand, Norway, Portugal, Qatar, Singapore, Slovenia, Spain, Sweden, Switzerland, Taiwan, United Arab Emirates, United Kingdom, United States

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ON THE RELATION BETWEEN REAL EARNINGS MANAGEMENT AND ACCOUNTING EARNINGS MANAGEMENT: INCOME SMOOTHING PERSPECTIVE

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ABSTRACT

The purpose of this paper is to investigate a relation between real earnings management and accounting earnings management to smooth earnings. I focus on discretional cash flow from operations as proxy variable of real earnings management and discretional accruals as proxy variable of accounting earnings management. Two earnings management will be simultaneous relation. To examine income smoothing activities and relation between real and accounting earnings management, I use proxy variables of real and accounting earnings management estimated by Roychowdhury (2006) and Kothari et al. (2005)'s model and construct empirical models based on Bartov (1993) and Herrmann et al. (2003).

As a result, I find evidences that relation between real and accounting earnings management is sequential and managers use complementarily the two earnings management to smooth income.

Keywords: real earnings management, accounting earnings management, income smoothing.

INTRODUCTION

The purpose of this paper is to investigate a relation between real earnings management and accounting earnings management to smooth income in Japan. We generally can divide earnings management into accounting earnings management and real earnings management. Accounting earnings management contains a choice from menu of treatments that are accepted under Generally Accepted Accounting Principles (hereafter, GAAP), such as LIFO versus FIFO for inventory valuation and depreciation. Real earnings management consists of real production and investment decisions, such as reducing research and development expenditures and affecting selling and administrative expenses. Current accounting system has some discretion that allows managers to manage earnings. Managers generally can use the discretion in reporting earnings to achieve their goal. Note that as long as managers use their discretion within the limits of GAAP, both earnings management are not illegal. Managers have some discretion in determining how aggressive or conservative their financial reporting should be. Real earnings management and accounting earnings

management are useful tools to manage earnings. Burgstahler and Dichev (1997) show evidences that managers manage earnings to avoid loss and profit decline by using real earnings management and/or accounting earnings management.

Managers may engage in a variety of earnings management patterns. One of earnings management patterns is income smoothing. Income smoothing is a very popular strategy among earnings management (Scott, 2006). Prior research has argued that income smoothing can occur as rational activities (Lambert, 1984; Trueman and Titman, 1988). From contracting perspective, risk-averse managers prefer a less variable bonus stream, other things equal. Consequently, managers may smooth reported earnings over time so as to receive relatively constant compensation. Efficient compensation contracting may exploit this effect, and condone some income smoothing as a low cost way to attain the managers' reservation utility. To illustrate this, suppose the agent is risk averse and his utility function is additively separable over time. Further assume that his compensation depends only on the reported profits of each period and that the ``unmanaged'' profits are independently distributed over time. In this case, if the agent's compensation is linear or concave, he will want to adjust first-period outcomes that are extremely high (low) downward (upward). This behavior corresponds to ``income smoothing''. Moreover, firms may smooth reported net income for external reporting purposes. Income smoothing can convey private information to the outside by enabling the firm to communicate its expected persistent earnings power. A smooth car ride is not only comfortable, but it also reassures the passenger about the driver's expertise.

Graham et al. (2005) report that 78% of managers would sacrifice a small, moderate, or large amount of value to achieve a smoother earnings path. I examine Japanese manager's income smoothing activity through real earnings management and/or accounting earnings management.

In this paper, I examine manager's use of real and accounting earnings management to smooth earnings. A real earnings management has been considered as good device for earnings management. Even though Accounting Standards Board of Japanese (hereafter, ASBJ), which is Japanese accounting standards setter, has set new standards to reduce accounting earnings management, such as "Impairment" and "Financial instrument" accounting standard, current accounting standards has much discretion in financial reporting. In Japanese GAAP, accounting standard for financial instrument requires managers to evaluate marketable securities with market price. Also the accounting standard for impaired asset forces managers revaluates tangible fixed asset and intangible asset which decrease value largely. It may be difficult for managers to use accounting earnings management to manage earnings. However, this fact leads that real earnings management increase (Schipper, 2003). Ewert and Wagenhofer (2005) find that earnings quality increases with tighter standards, which constrains accounting earnings management, but they identify several consequences that may outweigh this benefit. First, managers increase costly real earnings management because the higher earnings quality increases the marginal benefit or real earnings management. Second, tighter accounting standards can increase rather than decrease expected accounting earnings management.

While numerous attempts have been made by researchers to demonstrate accounting earnings management, little attention has been given to real earnings management. Therefore, the purpose of this paper is to find evidence that managers discretionally use real earnings management and accounting earnings management to smooth reported earnings.

The remainder of the article is organized as follows. The next section discusses the related prior literature and develops hypothesis. The third section covers research design, variables, sample selection, and models used in this research. The fourth section contains the empirical analysis and the final section concludes the article.

PRIOR RESEARCH AND HYPOTHESIS

To explore motivation and definition of income smoothing, I review prior research. Lambert (1984) models two periods principal-agent relation under moral hazard. He defines income smoothing as activity closing sum of two period incomes ex-ante expectation of net income. He provides proposition which risk averse agent smoothes earnings to reduce compensation risk premium. Trueman and Titman (1988) analyzes income smoothing as signal to bond market. They define income smoothing as shifting the recognition of some of the firm's income, from the second period to the first (from the first period to the second), whenever the first period's economic earnings are less than (greater than) the expected per period economic earnings. They models income smoothing activity as signaling to bond market and shows that income smoothing reduce a cost of capital to borrow. In this research, based on Trueman and Titman (1988), I measure the level of income smoothing as negative relation between unexpected income and two earnings management variables.

Next, I will review prior empirical research to identify difference of this research and prior research. Bartov (1993) investigates asset sales to examine income smoothing hypothesis and debt-equity ratio hypothesis. He defines discretional asset sales as amount of total asset sales and tests relation between income from asset sales and earnings per share (EPS). He finds a negative relation between these two variables. However, He does not distinguish between discretional asset sales and normal asset sales. As a result, his analysis cannot be necessarily accurate. Herrmann et al. (2003) also examine discretional asset sales to manage earnings. They define discretional asset sales as amount of difference between total asset sales and industry median of asset sales. This definition is more refined than Bartov's definition because discretional asset sales are specified. Though Matsuura (2007) adopts discretional asset sales based on Herrmann et al. (2003), he also does not control accounting earnings management. Therefore, I modify regression model to control accounting earnings management. By doing so, I can examine a relation between two earnings management strategies. In the last few years, several articles have been devoted to the study of real earnings management. Roychowdhury (2006) investigates some real earnings management; reduction of research and development expenditures, advertising expenditures, and cost of sales. He

also constructs comprehensive proxy variable of real earnings management. This comprehensive proxy variable, which is explained in the following, is discretional cash flow from operations. In this research, I use the comprehensive proxy variable of real earnings management based on Roychowdhury (2006)'s method. Based on Trueman and Titman (1988) and Bartov (1993), I construct follow hypothesis to examine income smoothing with real earnings management and accounting earnings management. This hypothesis is written alternative form.

Hypothesis 1: Positive (negative) real earnings management will be observed for firm with negative (positive) unexpected income.

Hypothesis 2: Positive (negative) accounting earnings management will be observed for firm with negative (positive) unexpected income.

In general, managers determine a level of accounting earnings management after certain level of accounting earnings management is determined, because accounting earnings management is determined at end of the period. However, managers may be able to change real transaction at the end of period. Thus, two earnings management may be sequential relation. If the relation between real and accounting earnings management is sequential and complementary, and if accounting earnings management is determined by manager after real earnings management, then there is positive relation between real and accounting earnings management. Therefore, I hypothesize this relation.

Hypothesis 3: There is positive relation between real and accounting earnings management.

In next section, I explain my research design to examine these hypotheses.

RESEARCH DESIGN

To examine above hypothesis, I construct empirical models. First, I explain dependent variables and independent variables used in this research. Secondly, sample selection procedure is explained, and finally I construct empirical models using these variables and my sample.

Dependent Variable

In this research, I use two proxy variables of earnings management, REM and AEM. REM is defined as discretional part of cash flow from operations. Cash flow from operations is generated in operating activity. For example, Cash flow from operations is consists of cash receipts from sale of goods and services, interest and dividend received, sale of trading securities, payments of SGA expense, income and other taxes paid, and interest paid. Thus, discretional cash flow from operations

captures managers' real activity to manage earnings. In this research, the discretional cash flow from operations is denoted by REM, which is one of dependent variable in this research. REM is calculated by using Roychowdhury (2006)'s model. I measure REM, which is discretional cash flow from operations, as the residual from the modified version of the Roychowdhury (2006)'s model. Specifically, for each calendar year and each two-digit NIKKEI-industry-code, I estimate the following Roychowdhury (2006)'s model using all firms that have the necessary data on NIKKEI Financial Quest Data Base and calculate REM as the residual from this estimation:

$$CFO_{it} = a_0 + a_1 SALE_{it} + a_2 \Delta SALE_{it} + a_3 ROA_{it} + \varepsilon_{it}$$

where CFO is cash flow from operations, divided by total asset at the beginning of period; SALE is the current sales, divided by total asset at the beginning of period; ?SALE is the annually change in SALE, divided by total asset at the beginning of period; ROA is current return on asset; ? is the regression residual. The regression residual indicates proxy variable of real earnings management, REM, in this research. To mitigate the effect of outliers and errors in the data, for each calendar year, I delete the top and bottom one percentile of each variable. I also require at least 15 observations for each estimation.

Next, I explain proxy variable of accounting earnings management, AEM. In extant literature, we set proxy for accounting earnings management using discretional accruals. Many researchers have developed discretional accruals model to construct proxy of accounting earnings management. However, these studies suggest that the best discretional accruals model is inadequately specified, such that the estimates of discretional accruals include considerable amounts of non-discretional accruals. Consequently, I measure discretional accruals by the residual from the modified version the Jones (1991) model in Kothari et al. (2005). This model will be the best now. As a REM model, for each calendar year and two-digit NIKKEI-code industry, I estimate the following model:

$$TACC_{it} = b_0 + b_1 PPE_{it} + b_2 \Delta SALE_{it} + b_3 ROA_{it} + \zeta_{it}$$

where TACC is total accruals. TACC is defined as difference between cash flow from operations and post tax net income, divided by total asset at the beginning of period. PPE is property, plant, and equipment at the beginning of the year, divided by total asset at the beginning of period; Δ SALE is the annually change in sales, divided by total asset at the beginning of period; ROA is current return on asset; and ζ is the regression residual. This regression residual indicates proxy variable of accounting earnings management, AEM.

These two proxy variables, REM and AEM, are dependent variables in my regression model. These variables capture manager's discretional behavior that achieve personal goal, which is to meet or beat target earnings.

Independent Variable

A main independent variable is unexpected income. Now, I suppose that net income is generated following random walk process,

$$NI_t = NI_{t-1} + \delta_{t,} \qquad \delta_t \sim N(0, \sigma_t),$$

where shock term, δ, follows normal distribution that average is 0 and variance is σ_t. Expected value of net income at t-1 equals a current net income. Therefore, expectation of last net income is best estimator of current net income. Given this assumption, unexpected income is defined as difference between current net income and last net income,

$$UI_t \equiv \delta_t = NI_t - NI_{t-1.}$$

To create pre-earnings management unexpected income, I deduct two proxy variables of earnings management from unexpected income. I construct two pre-earnings management unexpected income. First, PreEMUI is unexpected income before real and accounting earnings management.

$$Pre\ EMUI_{it} = UI_{it} - REM_{it} - AEM_{it,}$$

In general, real earnings management occurs before accounting earnings management. Therefore, I construct unexpected income before accounting earnings management, PreAEMUI.

$$Pre\ AEMUI_{it} = UI_{it} - AEM_{it,}$$

I construct two unexpected income; pre-all earnings management unexpected income, Pre EMUI, and pre-AEM unexpected income, Pre AEMUI. By assumption of income smoothing, I expect that all unexpected income variables have negative coefficient. This implies that managers use real and AEM to smooth income.

Next, I explain three control variables used in regression model. First, DE is the ratio of debt to total asset at the beginning of current year.

$$DE_{it} = DEBT_{it} / A_{it.}$$

Watts and Zimmerman (1986) explains the leverage hypothesis which firm having higher debt-equity ratio is more likely to manage earnings upper. However, Matsuura (2007) show that asset sale, which is one of REM, is negatively related to debt-equity ratio. This evidence indicate that a

collateral constrain discretional asset sales. Thus, I expect that debt-equity ratio is negatively related to REM but positively related to AEM. Secondly, I define SIZE variable to control firm size,

$$SIZE_{it} = \log(A_{it}).$$

SIZE controls firm size. Firm size is defined as the natural logarithm of the end of period's total asset. Since large firms to evaluate assets conservatively (Inoue and Thomas, 1996), I expect a negative relation between REM or AEM and SIZE. Thirdly, I add GROWTH variable to control firm growth into the model. GROWTH is defined as change of sales,

$$GROWTH_{it} = (SALE_{it} - SALE_{i,\,t-1}) / SALE_{i,\,t-1.}$$

Growth firms may be more likely to experience positive current performance. However, growth firms are less likely to have large positive amounts of income from REM because these firms are currently expanding. Therefore, the percentage change in sales is included as control variable for growth with the expectation of a negative coefficient.

Sample Selection

I explain the selection of the sample used in this research. Financial data for all consolidated Japanese companies listed in the first section of the Tokyo Stock Exchange were obtained from the Nikkei NEEDS Financial Quest database over the sample period 2002-2007. Data for six years (2002-2007) are collected; however, only five firm-years of observations (2003-2007) are used in the regression model because of the inclusion of lagged variables in the analysis of unexpected income and accruals. These sample periods reduce the effects of new accounting standards: accounting for impairments and financial instruments.

I construct the final sample by applying the following criteria. Initially, observations was in a (semi-) regulated industry were deleted. Observations that do not have data for two consecutive years are deleted. Observations that do not have a twelve-month accounting period are excluded. Observations that have negative accounting capital are deleted. Finally I eliminate observations for which the absolute value of the change in total asset is greater than 50% of the previous total asset. The resulting sample contains 6,538 observations.

Model

To examine the hypothesis mentioned above, I construct two empirical models: REM model and AEM model, based on Bartov (1993) and Herrmann et al. (2003). First, I consider the situation that real earnings management occurs before accounting earnings management. Because accounting

earnings management does not yet occur, I incorporate the unexpected income before all earnings management, PreEMUI. Thus, REM model is as follow,

$$REM_{it}=\alpha_0+\alpha_1 PreEMUI_{it}+\alpha_2 DE_{it}+\alpha_3 SIZE_{it}+\alpha_4 GROWTH_{it}+\lambda_{it,}$$

I expect that a coefficient of PreEMUI in REM model is significantly negative if managers use real earnings management to smooth earnings. Moreover, I anticipate that DE has positive coefficient because collaterals may constrain real earnings management.

Next, I construct AEM model as function of REM. Therefore, I build next model with unexpected income before accounting earnings management but after real earnings management, PreAEMUI and proxy of real earnings management, REM,

$$AEM_{it}=\beta_0+\beta_1 PreAEMUI_{it}+\beta_2 REM_{it}+\beta_3 DE_{it}+\beta_4 SIZE_{it}+\beta_5 GROWTH_{it}+\mu_{it.}$$

I expect that a coefficient of PreAEMUI is significantly negative if managers use accounting earnings management to smooth earnings. Moreover, I anticipate that REM variable is positive coefficient if two earnings management are used complementarily to manage earnings.

Real and accounting earnings management may occur simultaneously. If real and accounting earnings management occur at same time, then accounting earnings management is argument of REM model and real earnings management is argument of AEM model. To examine this expectation, I construct next regression models.

$$REM_{it}=\gamma_0+\gamma_1 PreEMUI_{it}+\gamma_2 AEM_{it}\gamma+\gamma_3 DE_{it}+\gamma_4 SIZE_{it}+\gamma_5 GROWTH_{it}+\xi_{it,}$$

$$AEM_{it}=\delta_0+\delta_1 PreEMUI_{it}+\delta_2 REM_{it}+\delta_3 DE_{it}+\delta_4 SIZE_{it}+\delta_5 GROWTH_{it}+\psi_{it,}$$

These models examine whether real earnings management is argument in function of accounting earnings management or whether accounting earnings management is argument in function of real earnings management. Because managers generally decide a certain level of accounting earnings management after real earnings management, I expect that accounting earnings management is likely to be argument in function of real earnings management. Therefore, I expect that coefficient of AEM does not have significant value in REM model, but coefficient of REM has significant positive value in AEM model. The leverage hypothesis indicates that there is a positive relation between AEM and DE. On the other hand, I expect a negative relation between REM and DE because long-term debt require fixed asset as collaterals (Matsuura, 2007).

RESULT

In this section, I discuss the descriptive statistics, correlation among variables, and result of estimation of regression model. Table 1 shows the descriptive statistics of the variables used in this research. Table 1 implies that all the variables do not have abnormal values. Therefore, I use all item in the sample without excluding samples that have abnormal value. Table 2 provides the correlation between variables. In consistent with hypothesis 1 and 2, earnings management variables is negatively related to unexpected income variables. High correlation indicates that variables may have multicollinearity. I verify the variance inflation factor (VIF). There is VIF of less than 2 in all models. Minotani (1988) describes that there is no multicollinearity if the VIF is less than 10. Thus, this value of VIF indicates that the variables do not contain multicollinearity in all models.

Table 1: Descriptive statistics

Variables	Obs	Mean	Median	SD	Min	Max
REM	6538	0.0006	0.0041	0.0588	-0.5080	0.4563
AEM	6538	-0.0041	-0.004	0.0478	-0.3626	0.4071
PreEMUI	6538	0.0118	0.0078	0.0952	-0.9539	1.2527
PreAEMUI	6538	0.0123	0.0110	0.0735	-0.9203	1.2638
DE	6538	2.0218	1.2684	2.4823	0.0459	21.950
SIZE	6538	5.0251	4.9399	0.5720	3.0726	7.3169
GROWTH	6538	0.0585	0.0360	0.1540	-1.7312	2.0734

The variables are defined as follows:
REM is discretional cash flow from operations estimated by Roychowdhury (2006)'s model.
AEM is discretional accruals estimated by Kothari et al. (2005)'s model.
PreEMUI is UI minus REM and AEM.
PreAEMUI is UI minus AEM.
DE is debt-equity ratio.
SIZE is natural logarithm of total asset at the end of period.
GROWTH is the percentage change in sales for the current period.

Table 2: Correlation Matrix							
Variable	REM	AEM	PreEMUI	PreAEMUI	DE	SIZE	GROWTH
REM		0.0294	-0.6579	-0.0110	-0.0141	0.0072	-0.0246
		(0.0175)	(0.0000)	(0.3732)	(0.2540)	(0.5582)	(0.0464)
AEM	0.0317		-0.5656	-0.8032	0.0377	-0.0248	-0.0059
	(0.0103)		(0.0000)	(0.0000)	(0.0023)	(0.0453)	(0.6350)
PreEMUI	-0.6350	-0.5257		0.6977	-0.0208	0.0011	0.0230
	(0.0000)	(0.0000)		(0.0000)	(0.0923)	(0.9310)	(0.0626)
PreAEMUI	-0.0219	-0.6550	0.7862		-0.0416	0.0145	0.0077
	(0.0768)	(0.0000)	(0.0000)		(0.0008)	(0.2395)	(0.5317)
DE	-0.0145	0.0482	-0.0027	-0.0151		0.2691	-0.0211
	(0.2414)	(0.0001)	(0.8255)	(0.2215)		(0.0000)	(0.0884)
SIZE	0.0012	-0.0250	-0.0006	0.0001	0.2368		-0.0204
	(0.9210)	(0.0435)	(0.9582)	(0.9909)	(0.0000)		(0.0983)
GROWTH	-0.1129	-0.0074	0.0707	0.0011	-0.0281	-0.0192	
	(0.0000)	(0.5514)	(0.0000)	(0.9274)	(0.0233)	(0.1205)	

Speaman correlations are reported below the diagonal and Pearson correlations are reported above the diagonal. All variables are defined in Table 1.

Next, I show results of regression of REM model and AEM model in Table 3 and Table 4 respectively. First, REM model examine a negative relation between REM variable and unexpected income before all earnings management. This relation indicates that managers use real earnings management to smooth earnings.

Table 3: Regression analysis: AEM model			
	Model 1	Model 2	Model 3
Variables	coefficient	coefficient	coefficient
Intercept	-0.0026***	0.0029***	-0.003
	(-12.22)	-12.19	(-1.64)
UI	-0.0526***	-0.0526***	-0.0469***
	(-14.18)	(-14.18)	(-12.47)
DACC	-0.0607***	-0.0607***	-0.0559***
	(-9.98)	(-10.00)	(-9.18)

Table 3: Regression analysis: AEM model			
	Model 1	Model 2	Model 3
DE		-0.0004***	-0.0004***
		(-2.94)	(-2.62)
SIZE			-0.0004
			(-0.27)
GROWTH			0.0008
			(-0.79)
Lag(EISA)			0.1065***
			(-8.7)
Lag(EISA)			0.1065***
			(-8.7)
Adj. R-square	0.4032	0.4034	0.4079

Amounts reported are coefficients with t-statistics in parentheses.
*, **, and *** are significant at 0.10, 0.05, and 0.01 respectively for the two-tailed t-test.
All variables are defined in Table 1.

In Table 3, all coefficient of unexpected income is significantly negative in every version of REM models. The evidence indicates managers use REM to smooth income. Therefore, the finding is consistent with hypothesis 1. Moreover, a coefficient of DE is significantly negative as expected. This evidence is not consistent with leverage hypothesis by Watts and Zimmerman (1986) and implies that collaterals constrain real earnings management, for example asset sales (Matsuura, 2007). Next, I provide the result of AEM models in table 4.

Table 4: Regression analysis: REM model			
	Model 1	Model 2	Model 3
Variables	coefficient	coefficient	coefficient
Intercept	-0.0026***	0.0029***	-0.003
	(-12.22)	-12.19	(-1.64)
UI	-0.0526***	-0.0526***	-0.0469***
	(-14.18)	(-14.18)	(-12.47)
AEM	-0.0607***	-0.0607***	-0.0559***
	(-9.98)	(-10.00)	(-9.18)
DE		-0.0004***	-0.0004***
		(-2.94)	(-2.62)

Table 4: Regression analysis: REM model			
	Model 1	Model 2	Model 3
SIZE			-0.0004
			(-0.27)
GROWTH			0.0008
			(-0.79)
Lag(EISA)			0.1065***
			(-8.7)
Lag(EISA)			0.1065***
			(-8.7)
Adj. R-square	0.4290	0.4304	0.4314

Amounts reported are coefficients with t-statistics in parentheses.
*, **, and *** are significant at 0.10, 0.05, and 0.01 respectively for the two-tailed t-test.
All variables are defined in Table 1.

As a REM model, all coefficient of unexpected income is significantly negative. This evidence show that managers use accounting earnings management to smooth income. The finding is consistent with hypothesis 2. While a coefficient of DE is significantly negative in REM model, AEM models have significantly positive coefficients. This evidence is consistent with leverage hypothesis. As an expectation, a coefficient of SIZE is significantly negative.

Finally I examine whether REM is argument in function of accounting earnings management and whether AEM is argument in function of real earnings management. As above discussed, real earnings management generally occur before accounting earnings management. Therefore I expect a significantly positive coefficient of REM in AEM model. On the other hand, I expect that a coefficient of AEM is not significant in REM model, because real earnings management is not argument in function of accounting earnings management. The results are presented in Table 5

Table 5: Regression analysis: REM and AEM models				
	REM		AEM	
Variables	sign	coefficient	sign	coefficient
Intercept	?	0.0118***	?	0.0145***
		(2.65)		(3.63)
PreEMUI	-	-0.5253***		-0.4249***
		(-85.14)		(-70.11)
REM			+	0.0144*
				(1.88)

Table 5: Regression analysis: REM and AEM models				
	REM		AEM	
Variables	sign	coefficient	sign	coefficient
AEM	+	0.0132		
		(1.26)		
DE	+	0.0001	+	0.0009***
		(0.51)		(4.90)
SIZE	-	-0.0012	-	-0.0030***
		(-1.36)		(-3.76)
GROWTH	-	-0.0214***	-	-0.0012
		(-6.60)		(-0.43)
Adj. R-square		0.5323		0.4317

Amounts reported are coefficients with t-statistics in parentheses.
*, **, and *** are significant at 0.10, 0.05, and 0.01 respectively for the two-tailed t-test.
All variables are defined in Table 1.

Table 5 shows evidence that coefficient of REM is significantly positive in AEM model, but coefficient of AEM is not significant in REM model. This evidence indicates while AEM is argument in function of REM model, REM is not. This fact is intuitive and consistent with hypothesis 3.

CONCLUSION

In this paper, I examine a relation between real earnings management and accounting earnings management from income smoothing perspective. The result of the examination is that managers use real earnings management and/or accounting earnings management to smooth earnings. Moreover, the relation between real and accounting earnings management is complementary. In examination of timing, I find a evidence that real earnings management occurs before accounting earnings management. Thus, managers generally decide a level of real earnings management before accounting earnings management. It follows from what has been said that managers use real and accounting earnings sequentially to smooth earnings and that real earnings management is argument in function of AEM model, because accounting earnings management occurs after real earnings management. These results lead to the conclusion that we should control real earnings management in examining accounting earnings management.

Next, I will discuss a limitation of my research and a future research. There will be three limitations for this analysis. First, definition of income smoothing is very specialized. Many analytical researches provide a various definition of income smoothing. I will be able to construct

another model of income smoothing by using another definition. For example, I can use the definition of Lambert (1984), which is an activity minimize variance of earnings across all periods. Secondly, there is a possibility that the model of expected income also is very specialized. I might be able to make another model of expected income by using random walk model with drift terms or regression model. However, it is difficult for this research to adopt regression model because regression model requires long sample periods. Thirdly, I use Roychowdhury (2006)'s to estimate discretional cash flow from operations as proxy variables of real earnings management and Kothari et al. (2005)'s model to estimate discretional accruals as proxy variable of accounting earnings management. However, these models cannot perfectly distinguish between discretional earnings management and normal part. We need to develop a discretional cash flow from operations model and discretional accruals model to analyze earnings management more accurately. We come now to the point at which it is necessary to deal more carefully with these models.

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WHY NOT DEAL WITH DARWIN?

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ABSTRACT

This paper explores the important role of innovation for the survival of Information and Communication Technology (ICT) firms in Vietnam. The determinants of the survival probability of a firm, traditionally identified in the size and age of a firm, are extended to include the ability of a firm to introduce an innovation in the market. The analysis combines the primary data from our survey, together with the secondary data of the number and size of ICT firms in Vietnam and the current performance of innovation in these firms.

We observe that, in general, innovation has been paid much more attention in Vietnam, specifically in ICT sector. However, the extent to which innovative ideas have been mobilized in these firms is still not very high. Furthermore, our results also found that most Vietnamese ICT enterprises are likely to waste innovative ideas at any minute due to the lack of some specific factors in the process of analyzing, evaluating and selecting the innovative ideas. How to best practice innovation for sustainable development of Vietnamese enterprises is the message implied in this paper.

RESEARCH METHODOLOGY

The research methodology combines desk work information analysis, primary and secondary data collection.

The primary data was mostly (81%) collected by face-to-face and telephone interviews using questionnaire to 126 ICT firms in Vietnam. The remains of 13% of primary data were collected by mail. There are 106 feedbacks, accounting for 84% of the sample size of 126

The secondary data includes collecting information about the number and size of ICT firms in Vietnam; information about current performance of some big ICT firms in terms of how much money and effort spent on motivating people to contribute innovative ideas and best exploit these ideas.

INNOVATION UPON DEALING WITH DARWIN

Dealing with Darwin is about leading your enterprise's evolution. It seeks to address the fundamental question: How can we innovate forever? Because that is precisely what natural selection forces us to do. Evolution requires us to continually refresh our competitive advantage. To innovate forever, in other words, is not an aspiration; it is a design specification. It is not a strategy; it is a requirement.

With globalization, deregulation and commoditization, business is becoming increasingly competitive, thus all companies are under increasing pressure to innovate. That is because free-market economies operate by the same rules as organic systems in nature: (1) Competition for the scare resources of customer purchases creates hunger that stimulates Innovation; (2) Customer preferences for one Innovation over another create a form of natural selection that leads to survival - of - the - fittest outcomes; (3) Each new generation restarts the competition from a higher standard of competence than the prior generation.

Innovation comes from many forms, far more than management teams usually acknowledge. As suggested in Dealing with Darwin, there are fourteen types of innovation types relevant to each period of the category-maturity life cycle. The challenge for management teams is to choose the type of innovation appropriate to their current situation and explore the process deeply enough so as to create definitive separation from their direct competitors. This is the process of managing innovation which includes the seven steps as follow.

Socialize The Ideas

Socializing the ideas plays a very important role in managing innovation. As management teams have little enough time to strategy, so they may have to pay high opportunity cost of grabbing a novel methodology. Thus, you'd better mobilizing the ideas in the organization, with discussion in caucus to get whether this is worth pursuing in the current situation. This step also implies how to mobilize innovative ideas in an organization without bias in the most effective way.

Analyze The Portfolio

Assuming there is support to pursue the project, the goal of this step is to analyze the position of each of our primary product lines in the category-maturity life cycle and the forms of innovation your competitors are using to differentiate from you, and eventually choose one or more categories to target for an innovation project.

Analyze The Target Category

The goal of this step is to get a clear view of the target category's current dynamics and the nature of the company's opportunity to change the competitive landscape.
In this step, the team should know how the category as a whole is performing, which business architecture that is having greater success & more appropriate to our company. In addition, you have to be well-aware of your competitors' performance operating on the same architecture as yours.

Out of this discussion, as if you are sure of the changing innovation strategies is a good idea, then proceed it. However, do not eliminate your current strategy until you have a good reason to do so.

Reduce The Number Of Innovation Types Under Consideration

At this stage, some innovation types would be excluded from further consideration. The goal is to get the candidate innovation types down to a manageable number. To avoid wasting valuable ideas, the process of elimination and preference should be carefully considered to figure out a minimum of one and a maximum of three innovation types to take forward as strong candidates for creating market-winning competitive differentiation. The chosen candidate innovation types would be consistent with the category's state of maturity and good fit with your core competencies. You should also consider whether any direct competitor has been deeply exploited such type of innovation, so as to create your market-winning competitive differentiation.

Develop Attractive Options

This step is very important as the fulcrum of the entire exercise. In this step, the company forms a coalition of executive sponsors who will support the cross-functional team. After discussing some successful examples and building a list of defining attributes of this type of innovation, brainstorm all the potential ways that can be applied to create distinctive competitive differentiation. Then, rate and rank all the ideas in terms of the attractive level to the customers and differentiated level to other successful competitors. Besides, it should be considered if the ideas give the customers a compelling reason to buy product or they're feasible for the company to execute or not. And at last, they must not be consistent with other tactics considered.

The next step is to ask each team member to rank each item on each criterion, scoring it from 1 to 5 with 5 being the best. With all the results prioritized by total score, the team will have to do a brainstorming program and a suite of program proposals that would bring these tactics to life with the involvement of al functions in your company. After you are done, all of your program ideas should be submitted to a financial analysis, seeking out the right balance of aggressive targets for

in-market performance with realistic request for investment, and adapt your final proposal according to that.

Select A Prime Innovation Vector

At this stage, each of the cross-functional teams, or Darwin teams, have to report out to the coalition sponsors on its proposed set of programs. Based on these proposals, the executive sponsors will select one innovation program to be the prime innovation vector that much further out of reach of our direct competitors. Choosing one innovation type does not mean eliminating the others, but they should be kept on the shelf.

Engage The Entire Organization

Once choosing the prime innovation vector, every function in the organization involved as clearly stated in the previous steps should have high commitments to that proposal because you have just declared your core1.

The goal of this process is to extract resources from context2 to repurpose for core. That's what makes innovation fundable.

INNOVATION SITUATION IN VIETNAMESE ENTERPRISES

In the past, most Vietnamese enterprises made and sold their products under assigned plans, paying no attention to investment, innovation, market research, advertising, marketing or competitiveness. Now, the presence of foreign invested enterprises has strongly affected and fundamentally changed their way of production and business, making them more active and adaptive to the market economy. In order to survive, Vietnamese enterprises have no choice but substantially renovating technologies, modes of production and business, in which innovation plays an extremely important role in gaining high competitive advantage and sustainable development in the global environment.

The trend of international integration and globalization, particularly the Vietnam accession to WTO, has forced us to think more about how and the extent to which innovation has been taken into consideration in Vietnam. That is the reason why we have conducted a survey to investigate the innovation situations in some Vietnamese enterprises specializing in ICT.

There are two main reasons why we chose ICT sector as the survey sample. On one hand, innovation is a common requirement for gaining competitive advantage and sustainable development, especially in ICT business which is extremely competitive and requires innovation day by day. "Innovate or die?" is a big question for those who have not paid much attention to innovation. On the other hand, ICT is one of the most developed sectors in Vietnam, especially the

IT sector with the growth rate of 20%-30% in the last coming years (see more in Table 1). Thus, investigating the innovation situation at ICT enterprises in Vietnam may give us a picture of the whole current innovation situation of Vietnamese enterprises.

Table 1
The growth of IT market of Vietnam, 2000 - 2005

Year	Software market (USD million)	Hardware market (USD million)	General (USD million)	Growth rate (%)
2000	50	250	300	-
2001	60	280	340	13.3
2002	75	325	400	17.6
2003	105	410	515	28.8
2004	140	545	685	33
2005	198	630	828	20.9

Source: Vu Xuan Nguyet Hong (Mar, 2007). Promoting innovation in Vietnam: Trends and issues. Presented to the Forum on Innovation in the African context, Dublin, Ireland

Based on the step one of managing innovation as suggested in Dealing with Darwin, the survey aims at deeply investigating the current situation of encouraging innovation in Vietnamese ICT companies.

The table below would show us in more details about the extent to what innovation has been paid attention to in some Vietnamese ICT enterprises.

Table 2
The percentage of Vietnamese ICT enterprises being aware of Innovation

Kind of companies based on scale	Awareness of innovation role (%)
SMEs	87
Big companies	92
Total	100

Source: Our market survey

Upon our survey as shown in the table above, we observe that 91% of over 100 Vietnamese ICT companies pay attention to encouraging innovation in their organization. This figure shows us that today more and more Vietnam's enterprises, no matter how big they are, are much more well-aware of the significant role of innovation. In other words, encouraging innovation has been

taken into account for gaining the new and innovative ideas, which is no longer the aspiration, but the requirement in ICT sector.

The way of doing such a kind of encouragement also varies as shown in table 3 below

Table 3
Ways of encouraging innovation in Vietnamese ICT firms

Kind of companies based on scale	Free contribution to the supervised managers/Board of Directors	Rewards for those who have good ideas	Innovation competition to mobilize innovative ideas	Innovative team specialize in creating innovative ideas	Mentality training courses to improve the innovative mind of the staff
SMEs (%)	86	63	5	0	21
Big companies (%)	92	81	37	8	38
Total (%)	90	71	25	5	33
Source: Our market survey					

The two most popular and common ways, in both big enterprises and small and medium enterprises (SMEs), are to create a comfortable environment for freely contributing ideas to the supervised managers or Board of Directors, and the appropriate rewards for those who have good ideas. Among these two ways, the former is the most popular with a very high percentage (90%), and the latter is nearly 20% lower.

However, there is also a big gap between big enterprises and SMEs in Vietnam in the way of mobilizing innovative ideas except the two ways above.

In contrary of big enterprises, 21% of Vietnamese SMEs in this survey have applied mentality training courses to improve the innovative mind of their staff, and just only 5% of them have organized innovation competition to mobilize innovative ideas in their organization, and especially the survey found that there is no innovative team specialize in creating innovative ideas in these SMEs. The reasons may come from the lack of resources, particularly capital and human. "The capital size of most enterprises is small, with 90 per cent of total companies having capital of less than VND5 billion (US$319,000)", Director of the Technical Assistance Centre for SMEs in Ha Noi Ta Dinh Xuyen said.

The ways of mobilizing innovative ideas in big ICT enterprises is likely a bit better but not very good in terms of the three latter ways. No one can deny that fact that they are big with huge capital and resources, and the fact that they are playing in an increasingly competitive market. However, upon the survey, just only 8% of them have innovative teams, and around 37%-38% of them have encouraged innovation through competition and mentality training courses.

Under the view of the 7 steps of managing innovation as suggested in Dealing with Darwin, the above figures reflect that "socializing the ideas" has been paid more attention, but the extent still varies among big and SMEs in Vietnam.

As for the process of analyzing the relevant portfolio, evaluating innovative ideas until making decision on selecting the prime innovation vector, the survey just focus on investigating three main factors in this process (steps 2-7) including a team to focus on analyzing, evaluating and developing attractive options; selection process based on critical analysis of all the innovative ideas; and whether they investigate how other competitors innovate.

Table 4
The percentage of Vietnamese ICT enterprises paid attention to some major factors in the process of analyzing, evaluating and selecting innovation vector

Kind of companies based on scale	A team to focus on analyzing, evaluating and developing attractive options	Selection process based on critical analysis of all the innovative ideas	Investigate how other competitors innovate
SMEs (%)	2	8	13
Big companies (%)	34	31	67
Total (%)	25	21	50
Source: Our market survey			

Upon the survey, most Vietnam's ICT enterprises do not pay much attention to this process. This implies the fact that most Vietnam's ICT enterprises are likely to waste innovative ideas at any minute.

SUGGESTIONS FOR VIETNAMESE ENTERPRISES

The market survey collection shows that Vietnamese ICT enterprises have paid much attention to encouraging innovation in their enterprises, however the extent to what innovative ideas have been mobilized in their organizations is still not very high.

The major thing that all Vietnamese ICT firms need to be well-aware of is to create an appropriate environment to encourage innovation in their organization. Such environment could be built up based on many factors.

Upon our survey, it should be created based on the three main elements including democracy, rewards and communication.

Firstly, democracy environment is where people can suggest whatever they think it could be valuable for the company, even crazy. Creating a democratic environment also involve a bottom-up instruction system, not only a top-down structure as usual.

Secondly, a reward system corresponding to valuable innovative ideas is also an important factor. Such an appropriate and adequate reward system could encourage people contributing more ideas for the company. The reward system also involves organizing innovation competition, which has not been paid much attention in most small & medium ICT firms in Vietnam. The point is that organizing such a kind of competition is a good way to mobilize the best ideas while spending not so much money, which is suitable for SMEs with limited capital and resources. In contrary, with a vast capital and resources, big ICT firms should create an innovation team to exploit their innovative mentality, together with mentality training courses and innovation competition.

Thirdly, there should be a good communication system so as to best mobilize and communicate the ideas smoothly in the organization.

In addition to mobilizing innovative ideas, how to exploit them in a most effective way is also an extremely important matter.

Upon the survey, most Vietnam's ICT enterprises are likely to waste innovative ideas at any minute due to the lack of a specific process of analyzing, evaluating and selecting innovative ideas. In order to avoid such a waste as much as possible, all the innovative ideas' collection should be critically considered through a process of analyzing, evaluating and developing attractive options conducted by specialized teams relevant to these ideas.

In conclusion, under increasing pressure of competition specifically in ICT sectors, Vietnamese ICT enterprises have no choice but substantially spending more resources on innovation, in other words to extract resources from context and repurpose for core. The above process requires a deep engagement in just such an effort.

ENDNOTES

1 Core is that which differentiates your company to create sustainable competitive advantage

2 Context, which is everything else you do, stands in contrast to core.

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APPLICATION OF ACCOUNTING CONCEPTS IN THE WORKPLACE: A RESEARCH OF MANAGEMENT ACCOUNTANT IN SURABAYA, INDONESIA

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ABSTRACT

Management Accounting has a significant role in providing financial information about organizations. Such information will be used by both internal and external parties. In order to fulfill the role, Management Accounting uses several concepts or tools, for example "Internal Control", "Asset Recognition" and "Activity Based Costing".

This research study surveyed 276 Management Accountants in Surabaya, Indonesia. The research is designed to describe the conceptual understanding and conceptual usage level of these management accountants. Usage and understanding level dimension is important to be observed. Information about those two dimensions could be used to involve management accountant into strategic level. There are 24 concepts used in this research, drawn from accounting concepts used in practice and taught at the academic level.

MANAGEMENT ACCOUNTANT IN ORGANIZATION

Management accountant has an important role in organization. There are two significant roles of management accountant in organization. First, is to record and report transactions in financial statement for stakeholders. The first role useful for external parties, that's why society known external report as a financial statement. Management accountant must fulfill requirements of knowledge in financial accounting concept such as internal control, asset recognition and others financial accounting concepts in order to do the first role. Second, management accountant must able to do various accounting management concept such as activity based costing, cost-volume-profit analysis, balance scorecard, and another concept. For the second role, management accountant making internal report which known as management report. According to the explanation, it can conclude there are two types of accounting knowledge, which are financial accounting and management accounting. Management accounting conducts with both of the knowledge regarding with their role in organization.

Level of appropriate concepts usage in financial accounting and management accounting will depend on management level, because every management level requires different skills. According to science management, there are three management skills that employees will need (Bateman, 2007):

1. Technical skill. The ability to perform a specialized task involving a particular method or process. Technical skill needed at the first time employee wants to enter into first level managerial. Focus of this level is to execute strategic decision or make operational for the strategy decision that has been made by top level management. Management accountant in first level managerial will usage their time in technical skill which is recording transaction and making financial statement.
2. Conceptual skill. Skills pertaining to the ability to identify and resolve problems for the benefit of the organization and its member. This skill use by middle and top level management. Role of management accountant in this level to give contribution in strategic issue for top level management.
3. Interpersonal skill. The ability to lead, motivate and communicate effectively with others. This skill usually referred to people skills.

It is common in Indonesia society perspective that the role of accountant limited only in technical skill, namely operational level. But in fact, role of accountant come up with strategic level, require conceptual skill. Management accountant who use conceptual skill frequently will involved in strategic level of organization. While management accountant who regularly use technical skill, they will play their role in operational level.

In global competitive age, it is already the age for management accountant in Indonesia to involve in strategic level. Accountant is supposed to be involved in strategic level, with contribution in strategic level. This role should be played by management accountant, in order growth of organization (Rizky, 2008). Involvement in strategic level can be done by provide strategic information, not only information in the form of financial statement. Strategic information can be used by top level management as a foundation for decision making and design strategic management system. In order to take part the role effectively, hence required enough competency as professional accountant management. The competency can be measure with how management accountant mastering and implementing accounting concept (The Indonesian Institute of Accountants-IAI, 2008). Byrne, conduct with research by interviewing financial manager and operating manager in medium and large companies. His research found that financial and operating manager expects management accountant enhanced in decision making' partner (Byrne, 2007). Furthermore many researches (Wegman, 2003) conduct with the role of management accountant in management strategy level, such as research conducted by Camillus & Grant, 1980; Simmonds, 1981; Lorange et al., 1986; Bromwich, 1990; Shank & Govindarajan, 1989 & 1990; Wilson 1995; Band & Scanlan, 1995; Oldman & Tomkins, 1999; Simons 1990; Band & Scanlan, 1995; Teller, 1999.

Kaplan in his review of The Evolution of Management Accounting' book, leveled strong criticism at the management accounting practice. Traditional accounting systems have been criticized because they focus on reporting information with little attention being given to the external

environment and the effect of competitors' decision and cost structure on current and future process of business (Abdel, 2006). This shows that management accountant is intended to satisfy top level management needs and to motivate and assist them in achieving organizational objectives in a timely, efficient, and effective manner (Kaplan and Atkinson, 1998; Hansen and Mowen, 1997). Management accountants are no longer mere scorekeepers of past performance and have become value-adding members of management teams (Kaplan and Atkinson, 1998), because the role of management accountant to be changing from bean counters to business partners (Malmi, 2001).

PROBLEM DEFINITION

The role of management accountant in Surabaya is interesting to observe. The interesting things is whether they involve in operational level or strategy level, whether they use a lot accounting concept rather than use just a little. Also whether management accountant really understand about accounting concept when conduct with their role. Such the literature review above said the role of accountant in organization not just in operational level but also in strategy level. Therefore, from the explanation, the problem of this research is: "how is the role of management accountant in Surabaya' organization?"

RESEARCH OBJECTIVE

This research has an objective to obtain empirical evidence about management accountant role in workplace. This matter will prove by observe understanding and usage level of accounting concepts in workplace, namely there are 24 concepts which is often used in academic and accounting profession. Result of this research will portray the involvement of management accountant in organization, which will cover the information:

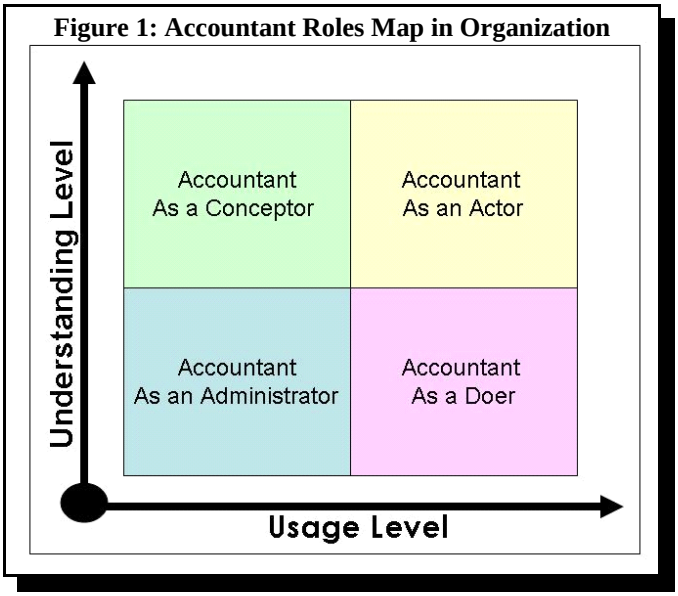
1. How far the role of management accountant in strategic level or operational level in organization.
2. Which concept that has the highest in usage level and understanding level?

FRAMEWORK THINKING

Theory of Management (Bateman, 2007) state that vocation in strategic level will further in using many conceptual skills compared to operational level. Farther The Indonesian Institute of Accountants (IAI) also advise that in global competitive age, the time has come for management accountant in Indonesia to involve in strategic level (The Indonesian Institute of Accountants-IAI, 2008). Understanding level and usage level represent the indicator that uses to asses the role of management accountant in strategic level and operational level. This research put factor understanding level, beside usage level. This factor is important to describe accountant role in organization, without understanding' factor the management accountant can't involvement as they

should they are. According to this idea, mapping of the role management accountant in organization can be show in following figure, drawn by Devie.

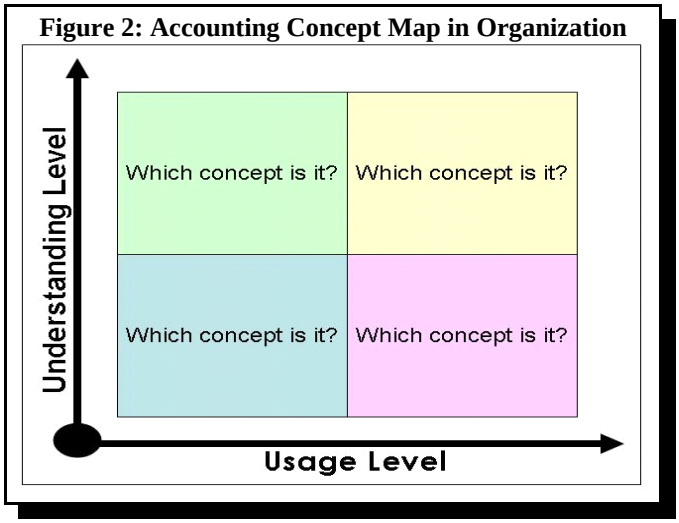
Figure 1: Accountant Roles Map in Organization



Accountant as an Administrator is management accountant who plays a part in administration such us recording account receivable/account payable, create sales invoice or as cashier. In reality, Accountant who has position in this quadrant can't group into Accountant, because they just conduct with bookkeeping not accounting process. Accountant as a Doer is management accountant who runs accounting system in day-to-day operational of organization. Accountant as a Conceptor is management accountant have higher understanding level of accounting concept but the concept not become important yet in organization. Accountant as an Actor is management accountant who concern in strategy level or give the needed information to top level management in regarding strategic decision.

After knowing the mapping of management accountant roles, the idea continued to see understanding level and usage level of accounting concept (see figure below drawn by Devie). Both understanding level and usage level will be used as a base to comprehend the role of management accountant in organization. Using that framework thinking, researcher will know which concept has the highest in usage level and understanding level.

Figure 2: Accounting Concept Map in Organization



ACCOUNTING CONCEPT

There are 24 accounting concepts use in this research. The concept composes 11 financial accounting concepts and 13 accounting management concepts. Represent accounting concept which is often used in academic and accounting profession. The concept was resulted from previous research and also textbook related to accounting concept in practice. The concept adopt from Chartered Institutional Management Accountant (CIMA); Dugdable, 1994; Chenhall and Langfield Smith; Luther and Longden, 2001 such mention by Abdel (2006) research and also from Malmi, 2001; Hoffjan, 2008; Rezaee et., al, 1995; Dick-Forde, 2006; Ghosh, 1997. This research also conducts with text book for the concept, which is from various accounting text book (Atkinson, et. al, 2001; IAS, adapted from Epstein 2004; Kieso and Wyegandt, 2004; Garrison and Noreen, 1997; Hansen and Mowen, 1997; Chasteen, et. al, 1998). Researcher didn't use the standard or practice from Indonesia context, because the researcher can't find the research that conduct with application concept. Most of the text-book use in Indonesia also the same text-book from United States (US) or translate from US text-book. Following represent the concept definition:

- Internal Control: consist of the plan of organization and all the methods and measures adopted within a business to safeguard its assets and enhance the accuracy and reliability of its accounting records (Kieso and Wyegandt, 2004).
- Disclosure: identify and describe the accounting principles followed by the entity and methods of applying those principles that materially affect the determination of financial position, changes in cash flows, or results of operations (IAS, adapted from Epstein 2004).
- Depreciation: systematic and rational allocation of the depreciable amount of an asset over its economic life (IAS, adapted from Epstein 2004).

- Inventories Valuation: determination of the value assigned to inventory item, using methods include weighted average, LIFO, FIFO, and identified purchase cost. (IAS, adapted from Epstein 2004).
- Financial Statement Analysis: evaluating three characteristics of a company: its liquidity, its profitability and its solvency (Kieso and Wyegandt, 2004).
- Time Value of Money: the opportunity cost of using money; that is, money like all commodities has a cost and can earn a return, so its value depends on when it is expended or received (Atkinson, et. al, 2001).
- Asset Recognition: a valuation according to the future economic benefits obtained or controlled by an accounting entity as result of past transaction or events (Chasteen, et. al, 1998).
- Liability Recognition: a process of valuation on probable future sacrifices of economic benefit arising from an entity's present obligations to transfer assets or provide services to other entities as a result of past transaction or events (Chasteen, et. al, 1998).
- Revenue Recognition: a process to asses the increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants (IAS, adapted from Epstein 2004).
- Expense Recognition: a process to assess decreases in economic benefits during the accounting period in the form of outflows or depletion of assets or incurrence of liabilities that results in decreases in equity, other than those relating to distributions to equity participants (IAS, adapted from Epstein 2004).
- Bank Reconciliation: the process to make the balance per books agree with the balance per bank, which is the lack or agreement between two balances is due to time lags and errors (Kieso and Wyegandt, 2004).
- Activity Based Costing (ABC): system based on activities that links organizational spending on resource to the products and services produced and delivered to customers (Atkinson, et. al, 2001).
- Service department costing: costs assigned from service departments to operating departments, by identifying the activity that drives costs in a services department and then measuring the consumption of this activity by other departments (Garrison and Noreen, 1997).
- Budgeting: the process of preparing budgets, which is a quantitative expression of the money inflows and outflows that predicts the consequence of current operating decisions and reveals whether a financial plan will meet organization objectives (Atkinson, et. al, 2001).
- Standard Costing: predetermined unit costs, which are acceptable for financial reporting purposes if adjusted periodically to reflect current conditions (IAS, adapted from Epstein 2004).
- Performance Evaluation: a management function that compares actual results with budgets goals. It is based on internal reports prepared by management accountant (Kieso and Wyegandt, 2004).
- Activity Based Management (ABM): an approach to operations control that involves the five-step process of identifying the process objectives, charting activities, classifying activities, continuously improving process, and eliminating activities whose costs exceed their value (Atkinson, et. al, 2001).
- Balance Scorecard (BSC): a systematic performance measurement system that translates an organization's strategy into clear objectives, measures, targets, and initiatives organized by four perspectives (Atkinson, et. al, 2001).
- Cost of Quality: those cost incurred on quality-related processes; included prevention, appraisal, internal failure and external failure costs (Atkinson, et. al, 2001).
- Productivity Measurement: simply a quantitative assessment of productivity changes. The objective is to assess whether productive effieciency has increased or decreased (Hansen and Mowen, 1997).
- CVP Analysis: the study of the changes in costs and volume on a company's profits (Kieso and Wyegandt, 2004).
- Profitability Analysis: analysis the cost and revenue or profit data of the organization's segments, which is segment example, includes sales territories, individual stores, individual customers, product lines, services canters, manufacturing division or sales department (Garrison and Noreen, 1997).

- Inventory Management: the process to manage organization inventory with relevant tools, such as JIT, EOQ or MRP in order efficiency and effective issue (Garrison and Noreen, 1997).
- Incremental Analysis: an analytical approach that focuses only on those items of revenue, cost, and volume that will change as a result of decision in an organization (Garrison and Noreen, 1997).

The accounting concept above can use by Accountant in operational and strategy level. Exhibit 1 below shows how the concept can conduct whether in operational level and strategy level. This comparison shows, how is Accountant make contribution in the both of that level.

Exhibit 1

No	Concept	Operational level	Strategy level
1	Internal Control	Using the concept in conduct with internal audit activity	One of the information from internal audit activity is efficiency issue, which is conduct in every function of department by management
2	Disclosure	Using in process to make disclosure statement	The disclosure information needed by top level management to make right decision when they want to use information from financial statement
3	Depreciation	Using in calculation the balance of depreciation every period	This information can use as one of element by top level management in evaluate the efficiency of fixed asset.
4	Inventories Valuation	Using in calculation inventory value that will present in financial statement	Information about inventory balance can use to evaluate inventory management effectiveness
5	Financial Statement Analysis	Present financial statement analysis information	Top level using this information to make further decision making
6	Time Value of Money (TVM)	Using in calculation TVM issue such as net present value (NPV) from one project.	The analysis from NPV' calculation can help top level manajemen to make better decision.
7	Asset Recognition	Determine the asset' value to calculate return of assest (ROA)	Information from calculation return of asset (ROA) can used by top level management in evaluate the effectiveness of organization' asset
8	Liability Recognition	Used to determine the value for liability	Liability information can used to manage payment time in considering the organization cash flow
9	Revenue Recognition	Using to calculate the value for revenue to present in financial statement	Revenue information can used by management, for example in context customer profitability analysis
10	Expense Recognition	Determine the value for expense to present in financial statement	Expense information used for cost reduction issue by value added analysis

Exhibit 1			
No	Concept	Operational level	Strategy level
11	Bank Reconciliation	Present bank reconciliation statement	Information from this statement such as the number of outstanding check can use to analyze the payment period we should do for supplier.
12	Activity Based Costing	ABC focuses on the allocation of costs	Information about ABC can used to implement cost leadership strategy
13	Service department costing	Calculate the cost that will allocate to primary department	Information from this calcualtion, can use as one of elements to analyze the efficiency every department
14	Budgeting	Preparing annual budget	This information can used by top level management to evaluate, whether the budget align with organization strategy
15	Standard Costing	Use to calculate COGM	COGM can used to evaluate the price that already set by management
16	Performance Evaluation	Calculate the difference between actual and budget	This information can use to evaluate the performance of department or division.
17	Activity Based Management	Activity analysis in each department	ABM focuses on the reduction of cost by using the information from ABC calculation. Using ABC, management can trace wich activity drive the high cost but didn't give significant value added in company' product/ service.
18	Balance Scorecard	Using BSC to make annual budgeting	Budgeting as one of information needed by top level to evaluate each division performance
19	Cost of Quality	Calculate the fourth elements from quality cost	This information can use in decision making such as determine the strategy that can reduce quality cost without reduce the quality
20	Productivity Measurement	Calculate the productivity each process	This information can assisst top level management to analyze the productivity in each business process
21	CVP Analysis	Determine and calculate the CVP value	CVP value can use by top level management to determine the marketing action and production plan
22	Profitability Analysis	Calculate the profitability value, based on segment (ex:customer)	To determine the customer that become company focus on their strategy
23	Inventory Management	Exam the inventory tools that give information about the best tools for inventory management	Determine what tools that organization will use for manage the inventory in efficiency issue
24	Incremental Analysis	Calculate the alternatif from some of choice, such as produce or make product	From this information top level can make the best decision

SELECTION OF SAMPLING AND DATA COLLECTION

According to The Indonesian Institute of Accountants (www.iaiglobal.or.id), there are four types of accountants, which are: management accountant, public accountant, educator accountant and government accountant. The population of this research is all management accountants who work in Surabaya. Management accountant is all accountant profession besides public accountant (auditor), educator accountant and government accountant. Selection of sample conducted by using convenience sampling method, it's meaning attempts to obtain a sample of convenient elements. The selection of sampling units is left primarily to the interviewer (Malhotra, 2003). By using confidence interval criterion for one sample proportion with 5% significant level (?) and 6% error level (e), minimum sample that should be obtain to conduct this research is 267 respondents. This research conducted from 276 respondents response, which can be interpret that this research are more than sufficient in terms of minimum sample size to be obtain.

IDENTIFICATION AND VARIABLE MEASUREMENT

According to framework thinking which have been elaborated at previous point, this research will examine the role of management accountant in organization through two variables.

1. Understanding level of management accountant in accounting concept. This variable measured in ordinal level with three options likert style technique: Agree (A), Disagree (DA) and Not Know (NK).
2. Usage level of management accountant in accounting concept. This Variable also measured in ordinal level using three options likert style technique: Always (A), Sometime (S) and Never (N). This Variable require to be measured at the same time with usage level variable, in order to see how far understanding level of management accountant when they as a respondent (primary data) of this research.

The questionnaire used in this research is divided into three sections. The first sections are asking the respondent profile. The second sections are asking question about definition of 11 financial accounting concepts and 13 accounting management concepts. This section contains random true or false statement about accounting concept which testing if the respondent understands the concept asked. The respondent should response in three options as already describe above to the definition asked. The third sections are asking respondent to choose usage level of each accounting concept.

The questionnaire composes question which show financial accounting concept and accounting management concept. The concepts asked in financial accounting is internal control, disclosure, depreciation, inventories valuation, asset recognition, revenue recognition, expense recognition, financial statement analysis, time value of money, liability recognition and bank reconciliation. While concept asked in management accounting is activity based costing, service department cost, standard costing, performance evaluation, quality cost management, inventory

management, incremental analysis, budgeting, activity based management, productivity measurement, balance scorecard, CVP analysis, and profitability analysis.

Research conducted with measuring understanding level and usage level of accounting concept. This research will result two important matters in seeing the role of management accountant in organization.

1. Mapping of role of accountant management in organization that can divide into Accountant as an Actor, Accountant as a Doer, Accountant as a Conceptor and Accountant as an Administrator.
2. Mapping of accounting concept, related with the highest concept in usage level and understanding level.

DATA ANALYSIS

Data analysis conducted with statistics descriptive, methods of organizing, summarizing and presenting information about usage level and understanding level accounting concept in workplace (Lind, 2008). Descriptive for understanding level differentiated into categories understand and do not understand. Responder who categories "understand" is reply agrees (A) to correct concept definition and reply disagree (DA) to incorrect concept definition. While responder who categories "didn't understand" is reply disagree (DA) to correct concept definition and reply agree (A) to incorrect concept definition. The number of responder who categories "didn't understand" according to criterion above added with number responder who reply not know (NK) when asked concept definition. Responder which reply always for usage level classified into category "always" use, while responder which reply sometimes and have never been, classified into category "rarely".

RESEARCH RESULT

Pursuant to result from descriptive analysis, responder at this research generally works on frontline managers or operational level (52.90%). A number of 38.04% responder has been worked more than 3 years as Accountant. Generally they work in limited company (65.94%).

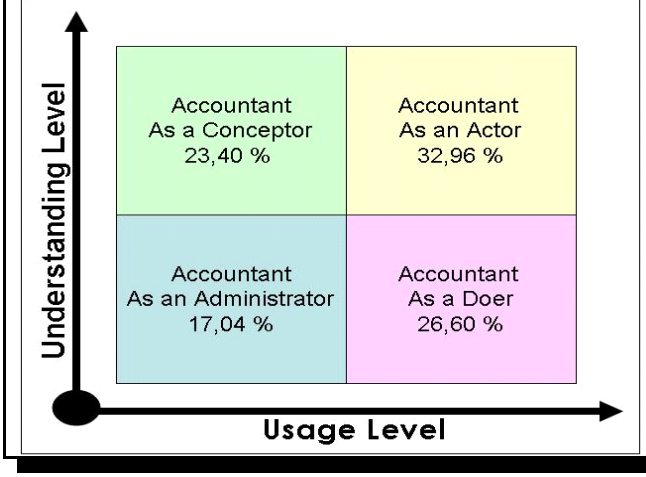
Table 1: Respondent Profile

Profile		Frequency	Percentage
Position	Frontline Manager	146	52.90%
	Middle-Top Manager	130	47.10%
Working Experience	0-1 year	66	23.91%
	>1-2 year(s)	64	23.19%
	>2-3 years	41	14.86%

	More than 3 years	105	38.04%
Corporate Body	Limited Company	182	65.94%
	Limited Partnership	42	15%
	Firm	13	5%
	Trading Company	30	11%
	Foundation	7	3%
	Other	2	1%
Source: Processed from raw data			

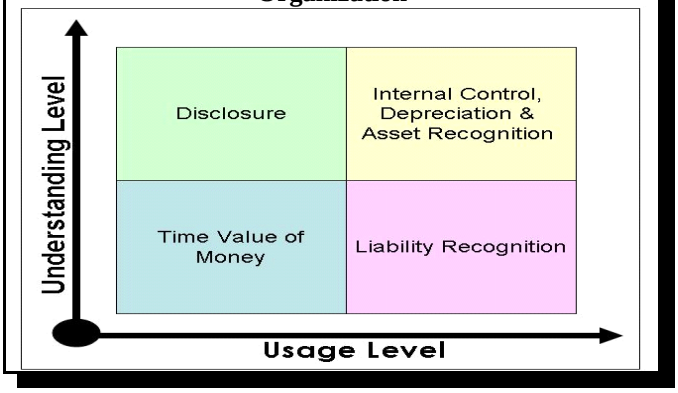
Result of analysis to questionnaire in financial accounting area, indicate that most of management accountant in Surabaya positioned on "Accountant as an Actor". This result show in usage level of financial accounting concept, management accountant in Surabaya more involve in strategy level or give the financial information for management that needed in decision making. Mapping in usage level of financial accounting concept can be seen in following matrix, drawn by Devie.

Figure 3: Accounting Roles Map in Financial Accounting



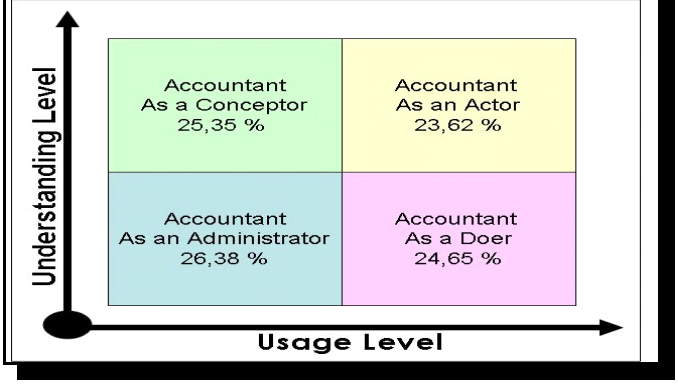
In the case of financial accounting concept, internal control, depreciation and asset recognition represent three highest concept usage level and understanding level. This result shows three of the concept represent popular concept in Surabaya, either from personal side of management accountant and also from requirement side of organization. Mapping of usage level in financial accounting can be seen in following picture, drawn by Devie.

Figure 4: Financial Accounting Concept Map in Organization



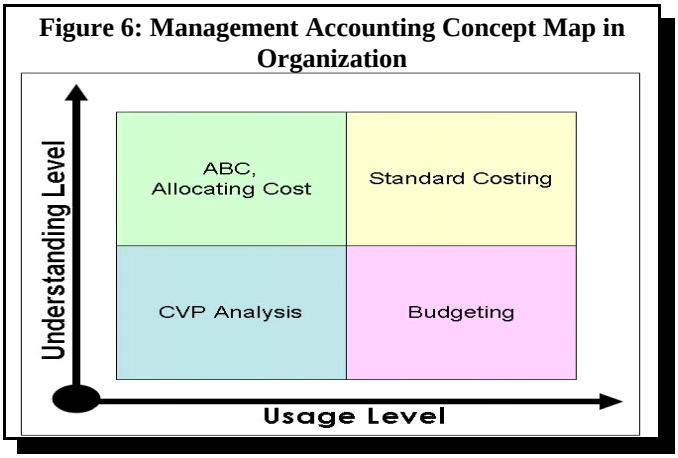
Regarding of management accounting concept, result shows that most of management accountant in Surabaya have position on "Accountant as an Administrator" and "Accountant as a Conceptor". As the a Conceptor show management accounting in Surabaya more contribute in administration activity and a lot have high understanding level in management accounting concept but the concept had not become important yet in organization. Mapping of accounting management concept can be seen in following figure, drawn by Devie.

Figure 5: Accounting Roles Map in Management Accounting



In the case of management accounting concept, standard costing represent the highest in usage level and understanding level. In management accounting context show this concept very popular from personal side of management accountant and also from side requirement of organization. Mapping of usage financial accounting concept can be seen in following figure below, drawn by Devie.

Figure 6: Management Accounting Concept Map in Organization



CONCLUSION

According to research result, can conclude that:

1. Management accountant in Surabaya have understanding level higher in financial accounting concept. According to descriptive analysis, management accountant in Surabaya more regular use financial accounting concepts compared to management accounting concepts. Similar conclusion also report by Malmi (2001) in Finland (although the research just observes in usage level) and also Ghosh (1997) in Singapore. While Sulaiman' research (2004) shows in management accounting context, contemporary tools (ABC, TQM and BSC) is lacking use rather than traditional tools (standard costing and budgeting) in four countries, Singapore, India, Malaysia and China.
2. In the accountant role context, management accountant in Surabaya more personate "Accountant as an Actor" regarding financial accounting perspective. On the contrary in the case of management accounting perspective, management accountant in Surabaya more involve as "Administrator" and "Conceptor".

DISCUSSION, RECOMMENDATION AND IMPLICATIONS

1. According to usage level and understanding dimension, there are four recommendations related to accountant role in organization:
   - a Accountant as an Administrator must separated from accounting community, because actually there are not accountant, they just conduct with bookkeeping.
   - b Accountant as a Doer must train to be accountant as an Actor.
   - c Accountant as a Conceptor must give trust by involving them in strategic level.

d Accountant as an Actor need to develop, especially their soft skill or personality skill, because they are the candidate for organization leader in the future.

2. Important for accounting department (academic) in university or college to shift strategy issue as an important discipline such as business school. The indicator of an important discipline is student can see in explicit issue about the interrelationship accounting concept in accountants' work to strategy.
3. Further research could include larger set of respondent profile including more demographics variables. Statistical analysis could be used to seek if there is relationship between respondent profile and the accountant role in organization.
4. In this research understanding level measured using a test sheet in the second sections of the questionnaire. This section contains random true or false statement about accounting concepts definition and gathered response in three options likert style technique. Further research could refine this method by gathered more information using likert style technique with larger set of options. This larger set of options considered more natural to measure understanding level. A larger set of option could also be applied to measure usage level.
5. Improvement for further research could also include statistical analysis to test whether there is significant evidence of relationship between usage level and understanding level. Other statistical analysis suggested is to test whether the understanding level on management accounting support understanding level in financial accounting. Statistical model to identify accountant role in organization of an accountant based on his/her understanding level and usage level could be useful in order to take an action as described in suggestion 1.

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FINANCIAL PERFORMANCE OF PRIVATIZED STATE-OWNED ENTERPRISES (SOEs) IN VIETNAM

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ABSTRACT

The literature on public financial management reform has devoted comparatively little attention to the detail and effect of reform process implementation in developing economies. This study contributes to an understanding of this phenomenon by examining the impact of privatization on a sample of previously state owned enterprises in Vietnam. Using a detailed, financially focused methodology and drawing on data sourced from audited general purpose financial statements, our analysis suggests evidence of material variation in financial performance and position post privatization compared to the position observed immediately prior to privatization. Specifically, our data suggests that after being privatized, firms generally exhibit reductions in profitability, improved liquidity, some degree of improvement in working capital management, an increase in financial leverage accompanied by a higher degree of solvency risk and greater calls on cash resources for the purpose of funding capital expenditure. Our results assist with understanding the impact of privatization as a reform technique in developing economies, and may assist policy makers and managers better target areas of likely risk, during the process of transition from public to private ownership.

Key words: Financial Performance, Privatization, State-Owned Enterprises, Vietnam

INTRODUCTION

Since the late 1970s a substantial body of literature calling into question the performance of the government sector has developed. Though this body of work has expanded to vast proportions, some common themes visible include the complaint that the government sector suffers from unclearly defined objectives, inefficient and ineffective policy implementation processes and is excessive in size relative to its economic setting. Further criticisms typically relate to the suggested existence of costly and overly bureaucratic organizational structures, low levels of responsiveness to citizens and a consequent failure to provide either an appropriate quantity or (as the case may be) quality of goods and services to taxpayers (Osborne and Gaebler 1992; Jones and Donald 2003).

Reformist oriented public management literature often links service and organizational sustainability deficiencies with macro level economic difficulties including persistent government sector budget deficits because of excessive costs and spending compared to poorly structured and inappropriately spread taxation bases. (Osborne and Gaebler 1992; Pollitt and Bouckaert 2004).

Many of the sentiments expressed in this body of literature were echoed in the policy settings adopted by reformist governments, most notably those in the United Kingdom, New Zealand and Australia (Carlin 2003; Carlin 2004). Consequently substantial changes in public sector management have emerged since the 1980s with various techniques, including contracting out, commercialization, corporatization, privatization used as a basis for improving cost effectiveness and efficiency in government.

Of these techniques, privatization has been perhaps most consistently employed throughout the world, often under conditions of considerable controversy. Privatization is the process through which governments either wholly or partly sell their interests in state-owned enterprises (SOEs) to private sector investors in the hope that the inefficient performance of these firms can be improved by the application of the discipline associated with private ownership (Megginson, Nash et al. 1994; Brada 1996; Megginson 2000; Megginson and Netter 2001).

Having initially been viewed as a radical, perhaps even desperate policy initiative of the most closely associated with the Thatcher government in Britain from 1979 onwards, privatization has come to be accepted as a potential instrument of economic policy for governments of many persuasions throughout the world. Indeed, the increasing tendency towards the use of this technique shows no sign of slackening in the 21st century (D'souza and Megginson 1999; Megginson and Netter 2001).

Understandably, given the widespread application of privatization as a tool of public policy and the high degree of materiality (in dollar and GDP proportionate terms) of many programs of privatization, the phenomenon has attracted considerable attention from researchers. Some of the work which has resulted from this attention has been empirical in its basis, with a particular focus on the performance implications of a switch from public to private ownership modes.

Despite considerable growth in the volume of extant scholarly literature focused on the question of the impact of management reform in the public sector, comparatively little is known about the impact of such initiatives in the developing world, particularly in instances where sweeping public financial management reform programs are of relatively recent origin.

Vietnam represents a case in point. Only in the post millennium period has the embrace of market based solutions been a significant phenomenon, made more interesting by the continued presence of a one party political system still nominally socialist in its focus. Consequently, this paper contributes to the literature by providing insights into the financial performance and position of a group of former state owned enterprises both before and after their transition to private ownership and listed company status. In doing so, this paper contributes to the development of a better understanding of the impact of financial management reform techniques in settings foreign

to those where they originated and were originally implemented. The results may therefore inform policy decisions in economies still in the process of transitioning to greater openness and levels of competition.

The remainder of the paper is structured as follows. Section 2 sets out a review of some relevant literature and how this paper relates to previous work in this field. Section 3 sets out relevant details pertaining to the dataset drawn upon for the purposes of the research reported in this paper and the methodology employed. Section 4 sets out key empirical results, while section 5 sets out some conclusions and suggestions for further research.

LITERATURE REVIEW

A considerable body of literature dealing with the subject of public sector management and financial management reform now exists. Within that, there exists a body of literature focused on the particular phenomenon of privatization. An often cited example of this type of work is embodied in Megginson, Nash and Randenborgh (1994). These authors compared the pre- and post-privatization financial and operating performance on 61 companies in 18 countries spanning 32 industries which had experienced full or partial privatization through public share selling over the period between 1961 and 1990. Their results suggested that after being privatized, former SOEs increased real sales, became more profitable, increased levels of capital spending, improved operating efficiency levels, had lower debt and increased dividend payouts (Megginson, Nash et al. 1994).

This paper provided a methodological guide helpful for other researchers interested in evaluating financial performance in different nations and in various industries. However, the approach taken by Megginson et al contained several obvious drawbacks, including sample selection bias, simple comparisons based on accounting information prepared according to a variety of incompatible standards frameworks and the lack of controls for potentially significant macroeconomic variables, such as industry changes regulatory frameworks and market-opening initiatives (Megginson and Netter 2001).

Furthermore, while providing a range of useful insights, the Megginson et al study sample contained very few firms from developing countries, leading to some concerns about the capacity to meaningfully generalize their results. To overcome this, Boubakri and Cosset used the same basic methodology as had been employed in the Megginson et al study method to conduct two studies. The first examined financial and operating performance of privatized firms in developing countries. Their sample included 79 companies from 21 developing countries and 32 industries which also experienced full or partial privatization over the period 1980 to 1992. Their results were consistent with those reported by Megginson et al (Boubakri and Cosset 1998). A second study examined the performance of 16 African firms which privatized during 1986 to 1996. This study reported

significant increases in capital spending in privatized firms but insignificant changes in profitability, efficiency, output (sales) and leverage (Boubakri and Cosset 1999).

These works represented important contributions to the literature, especially the insight that the privatization leads to performance improvement which may result from changes in management teams and style (Megginson and Netter 2001). Nonetheless, these left unexplored niches. For example, none of the firms included in the samples drawn upon in the Megginson et al study or the Boubakri and Cosset studies were from socialist countries undergoing the transition to the embrace of market based principles. Further, while the studies used aggregate financial data to characterize the position of firms after the point of privatization, the datasets drawn upon for the basis of this earlier research were not sufficiently rich to allow detailed drilling into the financial causes of the phenomena these authors observed.

Partly filling this gap in knowledge, some authors undertook evaluations of privatization processes in the Czech Republic, Hungary, the former German Democratic Republic, Poland and Russia, all Soviet bloc nations in a process of transition in the post Soviet era. Among these studies Harper (2000) examined privatization in the Czech Republic and concluded that this process resulted in improved profitability, higher efficiency and lower employment levels in divested firms in the second wave of privatization but caused the opposite results in the first divestment round (cited from Megginson and Netter, (2001, p.360)).

Other studies by authors, such as Claessens and Djankov (1999), Frydman, Hessel et al (1999), Smith, Cin et al (1997) were not focused on financial performance and contained various drawbacks, such as significant selection bias, omitted variables, and suffered a range of data validity problems resulting from the massive economy-wide changes occurring concurrently with privatization processes (Megginson and Netter 2001).

A recent study focused on the impact of privatization on financial performance of Chinese firms divested by the State in privatization processes. Wei, D'souza, and Hassan (2003) conducted a study on 208 privatized firms in China, a current socialist country, during the period from 1990 to 1997 and also used the Megginson et al methodology. The results of that study are consistent with those of the earlier studies cited above, save for their conclusions in relation to post privatization profitability. Wei et al documented that, after being privatized, the firms in their sample did not exhibit significant change in profitability (Wei 2003). Again, this research did not aim to discover the reasons for changed/unchanged profitability, for improvement in outputs, for sale efficiency and so forth, so it is not possible to determine from the results any detailed explanation for the observed phenomenon.

Another gap in the existing literature has been the failure of existing studies to document the association between privatization and a range of key business metrics such as working capital management efficiency, capital intensity, cashflow profile and the level of free cashflow generated by enterprises. Yet an understanding of factors such as these is important in the context of

developing detailed insights into the journey of transition undertaken by firms as they are reconfigured from public to private ownership.

Vietnam commenced a program of nationwide economic reform, known as Doi Moi, in 1986. This program represented a wide ranging agenda aimed at stimulating economic growth and improving the capacity for Vietnam to achieve both self sufficiency and higher levels of prosperity than had previously been generated. A substantial element of this agenda was a move towards greater private participation in the economic system. At the beginning of Doi Moi in 1986, Vietnam had around 12,300 SOEs many of which were unprofitable and exhibited signs of substantial inefficiency.

A concerted effort to attack this problem commenced in 1989 with the dissolution of many unprofitable SOEs and rearrangement of others. As a result, by the beginning of the privatization process which commenced in 1992, the number of SOEs in Vietnam had declined to around 6,500 enterprises (CIEM 2002; Vu 2005).

The process of privatization, or equitization as it is known in Vietnam, has attracted some degree of attention from researchers. Early studies chiefly focused on explaining privatization in Vietnam in its particular political and institutional setting (CIEM 2002; Mekong Economics 2002; Arkadie and Do 2004; Vu 2005; Sjoholm 2006). While useful, this first wave of literature did not contribute to an understanding of the effects of privatization on the financial performance of privatized firms (Chu 2004; Sjoholm 2006).

To date, two detailed studies have been conducted concerning the financial implications of privatizations in Vietnam. The most substantial of these was conducted by the Central Institute for Economic Management (CIEM 2002).

This study was based on a survey of approximately 422 privatized firms located in 15 cities and provinces of Vietnam. The results of this study, based on data pertaining to sales, value-added, number of workers, wages, total assets, export, and profit on sales ratio led the authors to conclude that privatization could generate positive results. However, the study was not without weaknesses, the most substantial relating to data validity. The data drawn upon for the purposes of the study was largely sourced via questionnaires and interviews with privatized firms' managers. There is some degree of concern that the managers of these organizations were cautious to avoid reporting conspicuous over or under performance, both of which could, in all the circumstances, have given rise to embarrassment (CIEM 2002).

Another considerable study was conducted by Webster & Amin (1998), employing a survey of 14 privatized firms in 1998 with a focus on sales, profits, employment and changes in ownership. The authors of this study also concluded that in general privatization had proved a successful policy. One noteworthy point was the discovery of difficulties in working capital and absence of investment capital financing in the sample of privatized firms. However, the causes of full implications of these factors were not developed in the analysis of the study's results.

This study is based on a detailed dataset compiled from the financial statements of 21 companies listed in Ho Chi Minh security center both before and after their listing. As distinct from previous studies, we report in considerable detail on observed changes in factors such as profitability, liquidity, working capital management, investment policy and cashflow, not only at the point of privatization, but over a period of three years post privatization. Consequently, this study offers insights into the changing face of post privatized SOEs in a socialist transitional economy not previously much available. Further details of the dataset drawn upon and the research method employed for the purposes of the study are set out in section 3, below.

DATA AND METHODOLOGY

Since the objective of this study is to provide detailed evidence pertaining to the impact of the transition from state owned enterprise to private venture, the sample of organizations examined were all originally configured as SOEs but were subsequently reconfigured as private sector enterprises.

Unlike other studies where the data relied upon for the purposes of analysis has been drawn from surveys, interviews and other similar sources, this study, focusing as it does on the financial dimension of the public to private transition, requires a richer and more consistent dataset. For that reason, the study is based on disclosures contained in annual audited (and published) financial statements. In Vietnam, under present regulations, these are only readily available from enterprises listed on one of the two official stock exchanges. One of these operates in Hanoi. At the conclusion of 2006, there were 87 firms listed on the Hanoi exchange. The other operates in Ho Chi Minh City, where 104 firms were listed by the same point.

However, the Hanoi exchange is a more recent phenomenon than the Ho Chi Minh City exchange, with the result that most listings on the former took place in 2005 or later. Therefore, given that a key objective of this study is to track the changing fortunes of post privatized SOEs over a medium term time frame, it was not possible to gather a meaningful research sample based on Hanoi listed entities. This therefore led to a focus, for the purposes of this paper, on organizations listed on the Ho Chi Minh City Securities Exchange.

For inclusion in the research sample, it was necessary that firms had been state owned enterprises prior to privatization (as opposed to private businesses which had taken advantage of an initial public offering process), and that audited financial statements were available for the organization for the year immediately prior to listing and for a period of three years thereafter. These requirements yielded a total research sample of 21 firms. Of these, 5 were listed in 2000, 4 in 2001, 10 in 2002 and 2 in 2003. Approximately two thirds of the organizations in the sample were from the manufacturing and materials sectors, while the remainders were service enterprises. Details of the set of firms included in the research sample are set out in appendix 1.

Because each listing year also yields a research sample too small for meaningful analysis, this study employs a data pooling technique whereby irrespective of the actual calendar year of listing, all data pertaining to each firm's year prior to listing, year of listing and each successive year post listing is pooled for the purposes of aggregate analysis.

This resulted in a dataset comprising 21 observations for the year prior to listing (t-1), the year of listing (t=0), one year post listing (t=1), two years post listing (t=2) and three years post listing (t=3). The aggregated t-1 data set comprised 5 firm year observations drawn from 1999 (relating to the five firms which listed for the first time in 2000), 4 from 2001, 10 from 2002 and 2 from 2003, respectively. Each of the other pooled datasets was constructed in the same manner. For each year each firm is included in the research sample, a variety of data pertaining to five key dimensions was gathered. These were:

1) Profitability;
2) Liquidity,
3) Working capital efficiency;
4) Financing; and
5) Cash flow.

To measure these categories, after considering data availability, the ratios set out in Table 1, below, were gathered.

Table 1: Ratios used for analyzing financial performance of privatized firms

Categories	Indicators
Profitability	Return on Assets = OPBT/Average Total Assets
	Asset Turnover = Net Sales/Average Total Assets
	Profit Margin = OPBT/Net Sales
	Gross Profit Margin = Gross Profit/Net Sales
	Selling and Admin. on Sales = Selling & Admin Expenses/Net sales
	Cost of Doing Business on Sale = CODB/Net Sales
	Cost of Doing Business = Selling Exp. + Admin. Exp. + Other Expenses
Liquidity	Current Ratio = Current Assets/Current Liabilities
	Quick Ratio = Cash, Cash Equivalents & Receivables/Current Liabilities
	Working Capital on Sales = (Current Assets- C. Liabilities)/Net Sales
Working Capital Efficiency	Account Receivable Days = 365*Average AR/Net Sales
	Account Payable Days = 365*Average A. Payables/Purchase
	Purchase = COGS + (Ending Inv. - Beginning Inv.)
	Inventory Days = 365*Average Inventory/Cost of Goods Sold
	Cash Conversion Cycle = AR Days + Inventory Days - AP Days

Table 1: Ratios used for analyzing financial performance of privatized firms	
Categories	Indicators
Financing	Debt to Equity = Total Debts/Total Equity
	Financial Leverage = Total Asset/Average Owner Equity
	ROE = ROA*Financial Leverage
Free Cash Flow (FCFF)	FCFF = EBITDA - Changes in Net Working Capital - CAPEX- Income Tax

Time series data pertaining to each of the five dimensions was pooled and analyzed, with the results being set out in section 4, below.

RESULTS

Effects on Profitability:

To measure profitability, the study uses six ratios: return on assets (ROA); asset turnover; profit margin; gross profit margin; selling and administration on sales; and cost of doing business on sales. The key findings were that profit margins earned by the firms in our sample over the three years post listing declined, on average. The main driver for this decline in profitability seems to have come on the pricing side of the equation, with downwards pressure on prices not being offset by less material declines in cost structures post listing. These results are set out in more detail in Table 2.

Table 2: Summary of effects on profitability of privatized firms after listing						
Ratios	Meaning for examination (Hoggett, Edwards et al. 2003)	Whole sample	Group by listing year	Manufacturing company	Trade & services companies	Generally verified sources of change
ROA	Amount of OPBT(*) generated by one VND of assets	Gradual decrease	Gradual decrease	Gradual decrease	Gradual decrease	OPBT increased at lower rate than average total assets
Asset Turnover	Amount of sales generated by one VND of assets	Up-down, increasing trend	Increase	Increase with oscillation	Insignificant increase	Net sales increase at higher rate than total assets do
Profit Margin	Amount of OPBT generated by one dollar of net sales	Significant decrease	Significant decrease	Significant decrease	Significant decrease	Reduction in selling price, increases in cost of goods sold and other expenses

Table 2: Summary of effects on profitability of privatized firms after listing						
Gross Profit Margin	Amount of gross margin generated by one dollar of sales	Significant decrease	Decrease, except firms listed in 2001	Insignificant decrease	Significant decrease	Reduction in selling price, and
Selling and Admin. on Sale	Ability to minimize expenditures for selling and administration	Insignificant decrease	Decrease, except for firms listed in 2000, 01	Insignificant decrease	Significant decrease	Management team tried to minimize the expenses, but not much
Cost of Doing Business on Sale	Ability to minimize expenditure for selling, administration, and extraordinary activities	Insignificant decrease	Decrease, except for firms listed in 2000, 2001	Insignificant decrease	Significant decrease	Management team tried to minimize the expenses, but with little effect
(*) OPBT used to eliminate the effect of tax regulation of the State						

Effects on Liquidity

To examine the liquidity or solvency of former SOEs, the study employed three ratios: the current ratio, quick ratio, and net working capital on sales. The analysis is also carried out in three dimensions: 1) whole sample with 21 firms; 2) four groups by listing year: 2000-listing, 2001-listing, 2002-listing, and 2003-listing; and 3) two sub-groups by industry: manufacturing-company group; and trade and services one. The results of calculation are represented in mean and weighted mean.

Overall, the results suggest that post listing, the firms included within the sample improved their working capital management practices. Thus, the mean observed values for the current and quick ratios fell, while the level of net working capital required to sustain a unit of sales activity fell. While the absolute level of liquidity exhibited by the sample firms fell in the three years immediately post listing, there was no evidence to suggest that the level achieved by that stage had declined to levels which would suggest, per se, that the continued financial viability of the sample enterprises ought be treated as doubtful. Overall results are summarized in Table 3, below.

Table 3: Summary of effects on liquidity of privatized firms after listing						
Ratios	Meaning for examination (Hoggett, Edwards et al. 2003)	Whole sample	Group by listing year	Manufacturing company	Trade & services companies	Generally verified sources of change

Table 3: Summary of effects on liquidity of privatized firms after listing						
Current Ratio	Ability of firm to meet short-term debt obligations; High ratio means strong ability to pay short obligations; Too high ratio means firm invest more capital in low profitable assets; Rule of thumb for safety is 2.0	High rate before listing; Strong ability to pay short debts; Decrease from 3.0 to lower rate at around 2.0	Moderate value, but 2000-listing firms in pre-listing; Strong ability to meet short debts; Decrease from various rate to around 2.0	High rate in pre-listing; Strong ability to pay short debts; Big adjustment from around 4.0 to around 2.0	Moderate value pre-listing; Ability to pay short debts; Ratio varies around rate of 2.0	There is an improvement in structure of current assets and current liability toward lower current assets and higher current liabilities.
Quick Ratio	Similarity as current ratio, but no inventory used for calculation because of its transferability to cash; Rule of thumb for safe is 1.0	High rate before listing; Strong ability to pay short debts; Decrease from 2.0 to lower rate at around 1.0	Moderate value, but 2000, 2001-listing firms in pre-listing;Strong ability to meet short debts; Decrease from various rate to around 1.0	High rate in pre-listing year; Strong ability to pay short debts; Big adjustment from around 2.5 to around 1.0	Moderate value pre-listing; Ability to pay short debts; Ratio varies around rate of 1.0	There is an improvement in structure of current assets and current liability toward lower current assets and higher current liabilities. Inventory takes high portion in current assets
Net Working Capital on Sales	Amount of working capital used to generate one VND of net sale; The lower ratio the higher efficiency of using working capital	Improvement in using net working capital	Firms listed in 2000 and 2003 have significant improvement	Significant improvement	Insignificant improvement	There is a trend of lower current assets and higher current liabilities; Significant increase in sales

Effects on Working Capital Efficiency

Consistent with the commentary pertaining to liquidity, there was strong evidence that the sample firms actively improved their working capital management practices over the three years immediately post listing.

Our data suggests that the main driver of this overall improvement lay in better receivables management, with average days receivable across the sample as a whole falling from approximately

100 days at the commencement of our measurement interval to around 60 days by the third year post listing.

By way of contrast, average inventory days lengthened slightly, though the overall result in this dimension was dominated by the impact of substantial inventory days lengthening in the case of the subsample of firms listed in 2002. However, even allowing for the potential impact of this phenomenon, there was far less clear evidence of systematic improvement in inventory management than was the case in relation to receivables.

The data also suggests that firms in the sample on average took longer intervals to pay their suppliers (in the order of approximately 20 days) at the three year post listing point than had been the case at listing. However, there is no evidence that this resulted from financial distress or a lack of liquidity on the part of these firms, which, according to our data (see table 3 and related discussion, above) had maintained liquidity at lower, albeit adequate levels at the 3 year post listing point when compared to the position at listing.

Finally, consistent with the observations set out above, the overall funding gap position for the firms in our sample improved, suggesting an improved overall free cashflow position. The results are set out in more detail in Table 4, below.

Table 4: Summary of effects on working capital efficiency

Ratios	Meaning for examination (Hoggett, Edwards et al. 2003; Flanagan 2005)	Whole sample	Group by listing year	Manufacturing company	Trade & services companies	Generally verified sources of change
Account Receivable Days	Days one company need to collect their receivables. The gradually shorter period reveals the improvement of credit sale management	Significant reduction of collection days from around 100 days to around 60 days	Significant time reduction in firms listed in 2000, 2002; Little adjustment in firms listed in 2001, 2003	Significant shortening time for collection	Significant shortening time for collection	Effective approaches for credit sale have been applied: credit selection, terms, collection techniques; Reduction of selling price and other incentives. These led to lower profitability; New methods of selling have possibly applied

Table 4: Summary of effects on working capital efficiency						
Inventory Days	Number of days which inventory remains in reservation before sale; The short period reflects the high speed of selling goods and services	Insignificant lengthening days for sale of goods and services; Dominated by firms listed in 2002	Nine firms listed in 2002 have significant increase time for inventory turn, other groups have insignificant reduction of days	Insignificant shortening time for turning inventory	Significant increase in days for turning inventory.	Manufacturing firms have not changed their plan of production, reservation. Trade and service firms have purchased and stored more inventory than the sale requirements
Account Payable Days	Number of days which a company takes to pay suppliers. The long time indicates ability to appropriate suppliers' capitals without interest	Longer time to pay suppliers	Longer period occurred in firms listed in 2000, 01, noise in 02 listing firms and shorter time in firms listed in 2003	An increase from around 40 days to around 60 days for paying suppliers	Decrease from 104 days to 90 days for paying suppliers	An improvement in manufacturing firms; Trade and service firms are under suppliers' pressure or being self-motivated to pay debts
Funding Gap	Number of days a firm takes to complete its one business cycle; The shorter gap indicate the short time a firm has cash available	Significant shortening in funding gap from 130 days to 83 days. Dominated by manufacturing firms	Significant shortening in funding gap	Significant shortening in funding gap from 152 to 82 days	Significant lengthening in funding gap. Increase from 48 to 88 days	Improvement in account receivable dominates the shortening funding gap of manufacturing firms; Funding gap of trade and service firms is dominated by shortening of payable days and lengthening inventory days

Effects on Financing

In order to assess capital structure and efficiency of capital usage of divested firms we use four ratios: debt on equity ratio, financial leverage, current liabilities on total debts, and return on equity (ROE). Also, the calculations are carried out in three dimensions: whole samples with 21 companies; four groups by listing year; and two sub-groups by industry classification.

The main observations pertinent to the financing strategies adopted by firms in the post listing period is that they did increase their reliance on debt capital, relative to equity capital.

As the balance sheets of our sample firms expanded in the post listing period, they exhibited a preference for debt financing over equity financing, with the result that classic measures of capital structure including the debt / equity ratio and the leverage ratio all increased (on average) by a substantial margin.

Interestingly, much of the additional debt taken on by the firms in our sample appears to have been short term in its maturity profile. It is difficult to know the precise reason for this, but it is possible that explanations include the relative ease of obtaining short term financing products versus longer term financing products in the Vietnamese marketplace, and the relative cost and complexity of longer term financing arrangements versus shorter term arrangements.

Assuming the capacity to roll over debt facilities with maturities shorter than those of the assets to which they relate, this may represent a viable financing strategy, but does suggest an increased degree of structural financial risk embedded in the capital structures of our sample firms by the third year post listing.

Over the same period, due principally to the decline in profitability we reported above, the overall levels of returns on equity declined, suggesting a worsened risk / return tradeoff position, at least in the short run.

The results are summarized in Table 5, below.

Table 5: Summary of effects on financing

Ratios	Meaning for examination (Hoggett, Edwards et al. 2003; Flanagan 2005; Nguyen 2005)	Whole sample	Group by listing year	Manufacturing company	Trade & services companies	Generally verified sources of change
Debt to Equity Ratio	Proportion of debt and equity that a firm finance its assets; High ratio indicates high portion of debt in assets. It also reflects higher profitability but high risk of bankruptcy	Significant increase and peak value at year two post-listing	Increase in all groups except for one which listed in 2001	Significant increase and peak value at year two post-listing	Insignificant increase but highest value at year two post listing	Management awareness of using more debts other than using equity; High demand of capital for operation, especially at year two post-listing

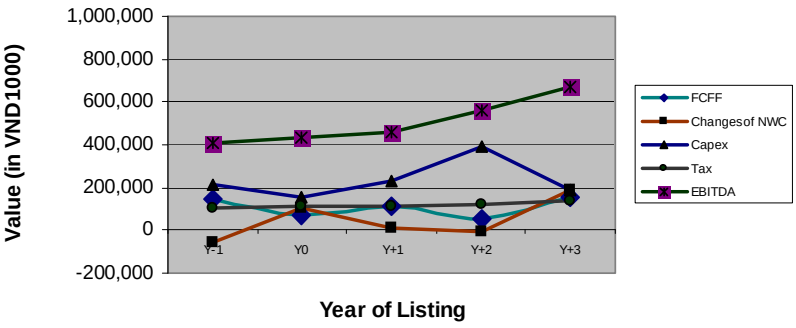
Table 5: Summary of effects on financing						
Financial Leverage	Portion of equity one firm used to finance its assets; High financial leverage leads to high return on equity (ROE)	Gradual increase after listing; Highest value at year two post listing	Gradual increase in groups except for one listed in 2001	Significant increase from 1.8 to 2.2; Highest value at year two post listing	Nearly unchanged, swing around 2.5; Highest value at year two post listing	It seems that firms get to the marginal point at 2.5; Higher demand of capital for operation; Highest debt in year two post-listing lead to highest financial leverage
Current liabilities on Total Debts	Measure the solvency level; High ratio reveals high risk but high profitability. This ratio might reflect the firm's difficulties in approaching the long-term loans.	Current liabilities account for around 90% of total debts	Current liabilities account for high portion in total debts	Current liabilities account for around 90% of total debts	Current liabilities account for around 90% of total debts	Possible reasons: high interest rate of long-term debts; complex procedures and condition for long term loans; Financial managers' decisions; High portion of current assets to maintain the safe liquidity level
Return on Equity (ROE)	Firm's efficiency at generating profits from every dollar of net assets; The bigger ROE, the higher efficiency	Significant decrease	Significant decrease in groups except for one listed in 2001	Insignificant decrease; Swing around 20%	Significant decrease. Maintain at 30%	Dominated by ROA and Financial Leverage; The increase of financial leverage could not cover the decrease of ROA

Effects on Free Cash Flow for the Firms

Our final element of financial analysis was to estimate the free cashflow to the firm (FCFF) generated by our sample of enterprises over the period under review. We estimated free cashflow to the firm by adjusting EBITDA for net changes in working capital (consistent with our discussion above), capital expenditure and taxation costs.

Overall sample FCFF and its components in pre- and post-listing periods are depicted in Chart 1, below.

Chart 1: Absolute Value of FCFF for Whole Samples



Scrutiny of the results suggests that overall FCFF varied insignificantly at the three year post listing point from the position which had been exhibited in the year prior to listing. However, a decomposition of the aggregate result yields interesting insights. While improvements to working capital management had a positive impact on the free cashflow position of the sample as a whole, this was offset by increased capital expenditure profiles, particularly in the first and second year post listing.

A variety of explanations could potentially be offered for this pattern, though one which may explain the increased call on capital expenditures in the post listing period relates to the possibility that on average, the capital stock under the control of the entities within the sample was at or close to the point of obsolescence by the time of listing. The increased managerial freedom and access to capital associated with the listing event may have provided managers with the capacity to rejuvenate their enterprises by injecting capital which in a previous organizational guise had either been unavailable or at least, relatively more scarce.

If this explanation holds true, then our results suggest that after an initial spike, capital demands should return to lower levels, in turn suggesting the possibility of materially improved FCFF levels in future periods - though these are not captured in our dataset.

CONCLUSION

Our results depict the challenges faced by a sample of firms moving from the public to the private domain in an economy itself undergoing rapid transformation. In contrast to earlier literature

which tended to paint pictures at relatively aggregate levels, our results have focused on the key individual financial levers which go to building up a profile of enterprise value generation potential.

We show, in contrast to the results published in earlier literature, that improved profitability is by no means a guaranteed outcome of the decision to transition from public to private ownership, particularly if that transition also occurs against the backdrop of a general recourse to greater competition in product and service markets.

The data we gathered in relation to our sample of firms suggests that they faced very substantial challenges in their first years of private operation. They found margin maintenance difficult, and were in general unable to reduce their cost structures by an amount sufficiently great to fully compensate, with the result that profitability fell, even in the face of expanded sales volumes.

They faced the need to replace obsolete equipment in order to better face more competitive open markets being created as other elements of the government's Doi Moi process, and this in turn required them to increase their reliance on external capital, principally debt. The manner in which the capital structure of our sample of firms evolved over time, with substantial reliance on short term debt, suggests difficulties faced in the absence of deep and liquid debt capital markets, and the need for managers within newly privatized organizations to better understand the inherent risks associated with financing strategies characterized by material maturity mismatches.

On the other hand, the enterprises included in our sample did succeed in making improvements on the working capital management side of the business - particularly in relation to receivables and payables, while performance on inventory management lagged. This may be due to the inherently greater level of complexity associated with the management of inventory, when compared against the decisions typically faced in the management of receivables and payables.

Although the overall level of free cashflow generation by our sample of firms had not materially increased by the conclusion of the third year post listing compared to the position at the year prior to listing, it is not accurate to depict the firms as not having undergone substantial change during that period. Overall, we found evidence to suggest that the firms in our sample were managed more leanly (e.g. lower cost structures, lower buffer liquidity holdings), with a greater tolerance and or appetite for risk (material capital expenditures funded chiefly through debt) and with a greater capacity to expand at a rate commensurate with demand, given easier access to capital - notwithstanding the concerns we expressed above in relation to the manner in which that capital was typically structured.

From a policy perspective, the results shed light on the implications of the privatization policy, and its capacity to operate successfully and consistently as an element of a broader portfolio of policies aimed at stimulating economic growth and health. Our results suggest that irrespective of any of the concerns which might typically be raised in relation to privatization programs such as that adopted in Vietnam (e.g. narrow wealth transfer effects, etc), the enterprises were generally more financially and operationally robust after a three year journey into the realm of the private

domain than they had been at the point of privatization - and in that sense, more able to contribute to growth and employment on a sustainable basis than may otherwise have been the case.

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Appendix 1: Sample of privatized and listed companies in Vietnam

	Stock Code	Company	Industry	Priv. date	Listing date	Total Assets			Shares Volume standing at listing date	Charter capital at listing date	Share holding at listing (%)			
						One year pre-listing	At end listing year	One year post listing			Pre-listing		Post-listing	
											State	Others	State	Others
1	AGF	An Giang Fisheries Import & Export JS Com.	M	28/06/01	2/05/02	127,138,000	167,499,000	209,828,000	4,179,130	41,791,300	100	0	20	80
2	BBC	Bien Hoa Confectionery Corporation	M	01/12/98	19/12/01	107,175,000	162,869,000	177,199,000	5,600,000	56,000,000	100	0	3.5	96.5
3	BPC	Bim Son Packaging Joint-Stock Company	M	08/01/99	11/04/02	51,867,000	54,148,000	59,997,000	3,800,000	38,000,000	100	0	65.3	34.7
4	BT6	Chau Thoi Concrete Corporation No. 620	M	28/03/00	18/04/02	176,123,000	216,744,000	255,556,000	5,882,690	58,826,900	100	0	50	50
5	BTC	Binh Trieu Construction and Engineering JS Com.	M	10/12/98	21/01/02	43,933,000	40,840,000	33,250,000	1,261,345	12,613,500	100	0	19	81
6	CAN	Halong Canned Food Corporation	M	31/12/98	22/10/01	59,143,000	66,360,000	80,522,000	3,500,000	35,000,000	100	0	30.7	69.4
7	DPC	DA Nang Plastic JS Company	M	04/08/00	28/11/01	37,200,000	28,176,000	26,955,000	1,587,280	15,872,800	100	0	31.5	68.5
8	GIL	Binh Thanh Import-Export, Production &	M	24/11/00	2/01/02	59,626,000	93,336,000	116,737,000	1,700,000	17,000,000	100	0	9.8	90.2

Appendix 1: Sample of privatized and listed companies in Vietnam

	Stock Code	Company	Industry	Priv. date	Listing date	Total Assets			Shares Volume standing at listing date	Charter capital at listing date	Share holding at listing (%)			
						One year pre-listing	At end listing year	One year post listing			Pre-listing		Post-listing	
											State	Others	State	Others
		Trade JS Com.												
9	GMD	General Forwarding & Agency Corporation	T & S	24/07/93	22/04/02	429,650,000	448,143,000	514,659,000	17,718,455	171,784,550	100	0	15.8	84.3
10	HAP	HAPACO JS Company	M	28/10/99	4/08/00	19,566,000	29,718,000	39,722,000	1,008,000	10,080,000	100	0	1.3	98.7
11	HAS	Hanoi P&T Construction & Installation JS Com.	T & S	13/10/00	19/12/02	85,850,000	97,497,000	101,872,000	1,200,000	12,000,000	100	0	30	70
12	KHA	Khanh Hoi Import Export Joint-Stock Company	T & S	07/03/01	19/08/02	60,226,000	76,721,000	1,102,730,003	1,900,000	19,000,000	100	0	29	71
13	LAF	Long An Food Processing Export JS Company	M	01/07/95	15/12/00	67,034,000	60,118,000	97,471,000	1,930,820	19,308,200	100	0	30	70
14	PMS	Petroleum Mechanical Stock Company	M	31/05/99	4/11/03	55,436,000	52,759,000	78,001,000	3,200,000	32,000,000	100	0	35	65
15	REE	Refrigeration Electrical Engineering Corporation	M	13/11/93	28/07/00	212,427,000	271,467,000	343,177,000	15,000,000	150,000,000	100	0	25.1	74.9
16	SAM	Cables And Telecom	M	30/03/98	28/07/00	155,038,000	164,698,000	183,132,000	12,000,000	120,000,000	100	0	48.9	51.1

Appendix 1: Sample of privatized and listed companies in Vietnam

	Stock Code	Company	Industry	Priv. date	Listing date	Total Assets			Shares Volume standing at listing date	Charter capital at listing date	Share holding at listing (%)			
						One year pre-listing	At end listing year	One year post listing			Pre-listing		Post-listing	
											State	Others	State	Others
		Materials Joint-Stock Com.												
17	SAV	Import-Export & Economic Co-Operation JS Com.	T & S	10/04/01	9/05/02	114,076,000	174,377,000	254,084,000	4,500,000	45,000,000	100	0	20	80
18	SGH	Sai Gon Hotel JS Company	T & S	15/01/97	16/07/01	24,971,000	22,815,000	24,142,000	1,766,300	17,663,000	100	0	38.9	61.3
19	TMS	Trans-Forwarding And Warehousing Corporation	T & S	03/12/99	4/08/00	65,153,000	80,981,000	66,411,000	2,200,000	22,000,000	100	0	10	90
20	TS4	Sea Food Joint-Stock Company No. 4	M	11/01/01	8/08/02	25,304,000	39,338,000	45,854,000	1,500,000	15,000,000	100	0	25	75
21	VTC	VTC Telecommunications JS Company	T & S	08/09/99	12/02/03	35,875,000	48,957,000	62,925,000	1,797,740	17,977,400	100	0	45	55

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