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Does FDI Impact Market Orientation-Business Performance Relationship?

Satyendra Singh[1]

ABSTRACT

FDI forces firms to be competitive and market oriented—the ability to serve customer's current and future needs. Firms can do so by encouraging product innovation, developing product development capability and reducing organizational slack. In this study, we label the combination of the three variables as firm's Organizational Absorptive Capacity (OAC). Literature suggests that FDI, and market orientation have a positive impact on business performance; however, the mediating role of OAC between FDI and market orientation is unclear. Drawing on the Source-Position-Performance framework, we propose to test FDI's direct impact on market orientation, and on business performance, and its indirect impact via firm's OAC on market orientation. Implication for managers is that they would be able to adjust their firm's OAC to be market oriented and to improve business performance.

Keywords: Business Performance, Capability, FDI, Innovation, Market Orientation, Organizational Slack

1. Introduction

The main driver for China's economic success lies in Foreign Direct Investment (FDI) (Lui and Zou, 2008). FDI is found to have a positive impact on GDP growth in host economy (Hanousek et al., 2011), capabilities and product innovation (Lin and Lin, 2010), better resources allocation, i.e., optimizing organizational slack (Kotrajaras et al., 2011). In the past two decades, since most emerging markets began participating in the globalization process, and the Structural Adjustment Program initiated by their governments, FDI became a focal point for both managers and scholars. Thus, FDI has been studied in various contexts, such as industrial productivity, its direct and indirect effects (Zhao and Zhang, 2010), host country's economic conditions, such as levels of financial market development, institutional development, better governance, and appropriate macroeconomic policies (Kose, 2006; Kotrajaras et al., 2003), manufacturing (Lin and Lin, 2010), innovation (Getz and Robinson, 2003; Clark and Guy, 1998), and technology transfer (Fan, 2002), among others. These studies may suggest that FDI can lead host firms to be market oriented—firms' ability to meet customers' present and future needs by becoming customer and competitor oriented and by coordinating activities

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within organization (Narver and Slater, 1990) which in turn should have a positive impact on business performance (Singh 2009; Singh 2003; Greenley, 1995; Narver and Slater, 1990). However, the relationship between FDI and market orientation is unclear.

The purpose of the study is to bring clarity between FDI and market orientation. In doing so, we fill gaps in literature and make two distinct contributions for both managers and scholars. First, we conceptualize a model based on source-position-performance framework (Day and Wensley, 1988) and propose the direct impact of FDI on market orientation, and on business performance. Second, we propose the indirect impact of FDI on market orientation via three pertinent and inter-related variables frequently cited in literature: Innovation (product), Capability (product development), and Organizational Slack (extra resources). We conceptualize the three mediating variables as Organizational Absorptive Capacity (OAC) of a firm which renders firms a competitive advantage by enabling them to develop market orientation within their firms. Innovation is defined as a change in a product offering, service, business model or operations, which meaningfully improves the experience of stakeholders. A firm's capability is defined as its ability to develop new products or services to create and deliver superior customer value (Day, 1994). Organizational slack refers to more resources than necessary to produce a given level of organizational output (Bourgeois, 1981).

Integration of OAC with FDI offers a new perspective that international business managers can use in determining which dimension of OAC is most important in their firms or industry for a superior business performance. For example, the concept of organizational slack and its competitive advantage is well documented (Peng and Tan, 2003; Singh, 1986), but its calibration is not. Thus managers can use the study to adjust slack in order to develop market orientation and improve business performance. Calibration of organizational slack is needed to redeploy resources to develop product innovation, and product development capability. In the following sections, we propose the conceptual model, advance propositions, and discuss their implications for managers.

2. The Conceptual Model

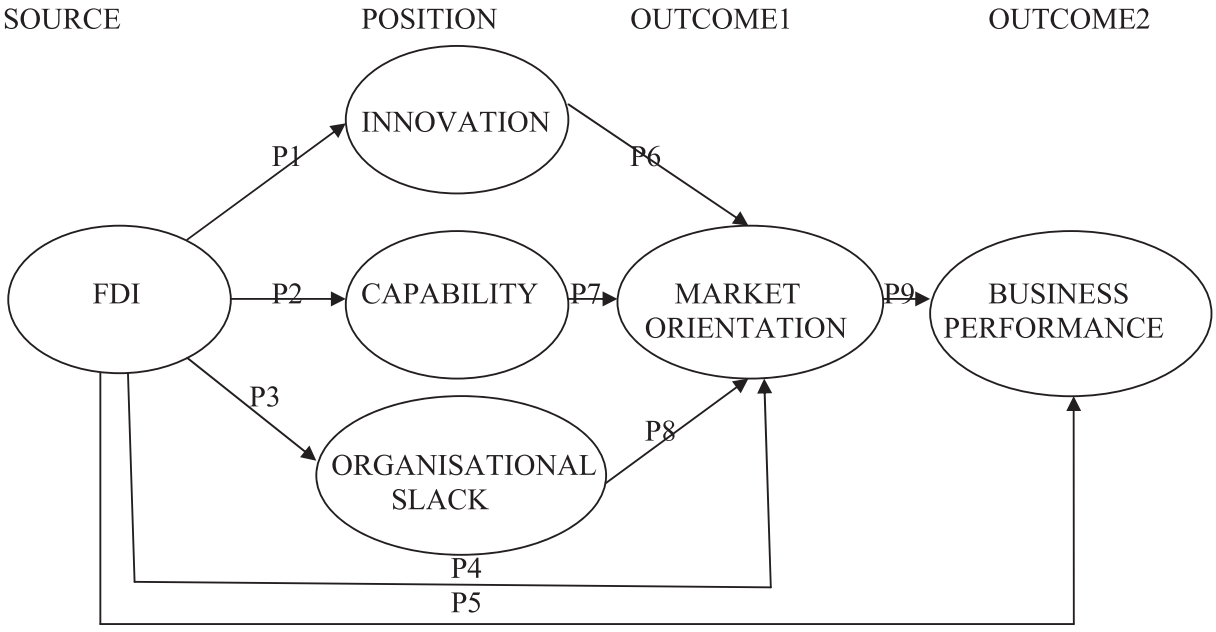
Figure 1 shows the conceptual model based on Day and Wensley's (1988) source-position-performance framework in which FDI is the source, OAC is position (positional mediator), and market orientation and business performance are the outcome (see also Han, Kim and Srivastava, 1998). We hypothesize two pathways direct and indirect. The direct pathway involves the direct impact of FDI on market orientation, and on business performance, whereas the indirect pathway is posited to occur indirectly through OAC innovation, capability and organizational slack.

2.1 FDI and Innovation

Foreign direct investment is defined as a firm from one country making an investment in another firm in another country. This may be physical, financial and or technological. There are two kinds of FDI: Inward and Outward. Inward FDI (e.g., imports) can strengthen competition and accelerate the process of innovation, whereas outward FDI (exports) can have a complementary impact on research and development initiatives of manufacturing firms (Lin and Lin, 2010). FDI has a positive impact on firm's innovative activities. Innovation is defined as a change in a product offering, service, business model or operations, which meaningfully improves the experience of stakeholders. Taiwanese manufacturing industry has experienced a positive impact of FDI on innovation, mainly due to the access to modern foreign technology, which has forced local firms in the same industry to be competitive and innovative

(Liu and Zou, 2008).

Figure 1: Conceptual Model - Source-Position-Performance Framework



However, impact of FDI is not always positive. Studies show that foreign acquisition may not necessarily lead to better technology transfers or higher innovation, because the skills, technology, knowledge and methods may not be better than existing one. On one hand it might increase efficiency or research and development; on the other hand, foreign parents might transfer part of their technology, or not at all (Stiebale and Reize, 2011). Effect of foreign acquisition on a firm's innovation is mixed. So, we advance:

P1: FDI leads to Innovation.

2.2 FDI and Capability

A firm's capability is defined as its ability to develop new products or services to create and deliver superior customer value (Day, 1994). Due to FDI, existence of foreign-owned firms in host economy leads to increased competition in the domestic market (Fan, 2002), forcing domestic firms to upgrade their production methods to become more efficient by learning from foreign firms' superior technologies. The process of learning and becoming efficient enables firms to develop their own product development capabilities. Building capability is one of the spillover effects of FDI. Further, FDI can contribute to developing skilled and knowledgeable workforce through training initiatives and other educational programs. Despite the obvious advantages of FDI's ability to improve host-country's capability, such improvements are largely dependent on certain characteristics of host countries. We argue that characteristics-level of infrastructure, governance, trade openness-generate spillover effects such as capability. Hence, we propose:

P2: FDI Leads to Capability.

2.3 FDI and Organizational Slack

Organizational slack refers to the excess capacity or resources maintained by an organization-created

consciously or unconsciously. There are two kinds of organizational slacks: tangible and intangible slack. Tangible slack may be excess finance or employees that are not fully engaged, whereas intangible slack includes research and development activities and marketing expertise (Chang and Rhee, 2011). Firms with lower levels of organizational slack operate more cautiously than firms with higher levels of slack. A high organizational slack enables firms to take risk, and to adapt to competitive and uncertain economic climate. As FDI is inherently risky, firms with more slack use investment-based strategy. Organizational slack is positively related to the feasibility of rapid FDI expansion.

Firms create a buffering mechanism to deal with market turbulence or uncertainty by allocating excess slacks to foreign initiatives, or by developing different products, or by entering different geographic markets. However, in doing so, they reduce the levels of slack due to FDI. Similarly, local firms begin to cut their slacks in order to be more competitive due to arrival of the foreign firms. Thus we propose:

P3: FDI Reduces Organizational Slack.

2.4 FDI and Market Orientation

Market orientation relates to the creation of superior customer value and continuous superior performance for the business (Narver and Slater, 1990). This view consists of three behavioral components customer orientation, competitor orientation and inter-functional coordination within firms. In order for firms to be market oriented, they need resources (i.e., to meet the current and future needs of customers) such as skilled labor or improved technology. FDI may provide both. Thus, FDI can make local firms market oriented by adding knowledge and skills to the local workforce, and by providing training programs, and by assisting transfer of technology. Further, FDI can directly influence host country's productivity by introducing capital goods (equipment), new processing practices, new products, and new management skills.

Such knowledge and emergence of ideas provided by FDI stimulate innovation which firms use to be market oriented (Zhao and Zhang, 2010). Furthermore, FDI's positive impact on the business environment of host economies through introduction of new technologies and technological assistance to local supplier and customers may actually improve market orientation of local firms (Fan, 2002). Thus, FDI may be necessary for firms to be market oriented. So we propose:

P4: FDI Leads to Market Orientation.

2.5 FDI and Business Performance

FDI has spillovers effects: horizontal and vertical. Horizontal spillovers are external to local firms and affect at the intra-industrial level. For example, entry of a firm whose productivity is driven by FDI encourages other firms within the same sector to catch up with the performance and competitiveness. The increase in efficiency occurs by imitating new technologies or by hiring trained workers and managers from foreign-owned firms. In contrast, vertical spillovers take place at the inter-industry level through, for example, technology transfer to local suppliers or customers in the production chain. Thus, firms operating in other sectors than the foreign enterprise are also affected by the FDI presence, as they come in contact with the suppliers. Usually, foreign firms require higher standards from their local suppliers which in fact increase efficiency of the firms (Hanousek et al., 2011). Although FDI may have different effects in different countries, it is expected that its spillover effects through transfer of knowledge and technology should positively contribute to increasing business performance. So we propose:

P5: FDI Leads to Superior Business Performance.

2.6 Innovation and Market Orientation

Innovation determines sustainability of an organization, as it stimulates research and development to come up with new or improved products or services (Getz and Robinson, 2003). An increase in evolutionary thinking through research and development requires a technical change. Advances in technology can result in change and innovation. Because it is important to meet customers' needs, and firms' search for advanced technologies to produce innovative products. The ability to produce innovative products or services makes firms market oriented.

However, innovation should not only be confined to improving the quantity and quality of a product, but also the characteristics of the new product which differ from other products. Otherwise, innovation may be insufficient to support market orientation of a firm. In fact, FDI brings pressure and risk to the firms. It may be difficult for small firms to achieve growth and be market oriented if innovation is insignificant (Clark and Guy, 1998). Thus, it is expected that FDI makes firms innovative enough to be market oriented through technology transfer. Thus, we propose:

P6: Innovation Leads to Market Orientation.

2.7 Capability and Market Orientation

A firm's capability is defined as its ability to develop new products or services to create and deliver superior customer value (Day, 1994). Developing new capabilities is particularly important for market-oriented firms because they respond to current market environment, and anticipate future market conditions (Chandy and Tellis, 2000; Slater and Narver, 1995; Kohli and Jaworski, 1990). FDI enables firms to develop capability to perform tasks on their own by learning from foreign collaborating-or technology-transferring firms. One of such tasks is a firm's ability to be market oriented; that is, to be able to track customers' preferences and develop products accordingly while being competitive. Hence, survival of firms is determined by firms' capabilities to develop market oriented products and services. Although capabilities can be valuable sources of sustainable competitive advantage in some industries at certain periods of time, it may not be valuable in all industries at all times (Collis, 2006). For example, a firm may decide to be market oriented through outsourcing rather than developing its own capability under turbulent market conditions. Nonetheless, we expect that the overall capability of firms and their competitiveness influence firms to be market oriented. Thus, we propose:

P7: Capability Leads to Market Orientation.

2.8 Organizational Slack and Market Orientation

Organizational slack refers to more resources than necessary to produce a given level of organizational output (Bourgeois, 1981). Organizational slack is excess and available resources in an organization, ranging from financial resources to technology, equipment, inventory, information, and people. Because market orientation calls for substantial amount of resources to anticipate future needs of customers while meeting current needs, firms can redeploy excess slack for developing market orientation and for in-house design and production of products. Firms perform better because they allocate resources better and manage them better. Slack is potentially utilizable resources that can be diverted or redeployed for achieving organizational goals (George, 2005). We argue that presence of slack should be strategic.

However, opponents of slack posit that slack can encourage complacency, politics, or self-serving

managerial behavior, and thus can hurt performance (Jensen, 1986). Therefore, slack should be eliminated to reduce this possibility (Phan and Hill, 1995). Although organizational slack is an important prerequisite for competitive advantage and for market orientation, it can also be viewed as a disadvantage if it is not optimal. Too much slack reduces return on investment as resources are taken away from the bottom line, and too little slack lacks timely response to market condition and customer preferences. The challenge lies in managing and optimizing slack to gain a competitive advantage. The source of sustainable competitive advantage is likely to be found in different places at different points in time in different industries. Thus, firms need to adjust slack to be market oriented and to improve performance (Love and Nohria, 2005). Thus, we propose:

P8: Organization Slack Leads to Market Orientation.

2.9 Market Orientation and Business Performance

It is well established that market orientation leads to a superior business performance (Jaworski and Kohli, 1993; Narver and Slater, 1990), and that it builds competitive advantage for firms (Narver and Slater, 1990). It is mainly due to the fact that firms' products are more successful because market oriented firms would conduct market research to discover customers' needs. As a result, customers' preferences match firms' products, resulting in less product failures, leading to superior business performance as determined by profitability, return on investment, and market share, among others. Often firms develop market oriented strategies to be profitable and combat entry of new firms by adjusting their marketing mix (Robinson, 1988).

Although increasing or maintaining a magnitude of market orientation is a complex process and requires a considerable expenditure of resources, such as money and time (Slater and Narver, 1995), the benefit of becoming market oriented far exceeds the costs of being market oriented, as firms are able to capture more market share (Singh, 2003), and thus more profitable, leading to a superior business performance. Thus, we propose:

P9: Market Orientation Leads to Superior Business Performance.

3. Discussion and Implication for Managers

The purpose of the study was to advance propositions relating to FDI and market orientation-business performance relationship, and the mediating role of innovation, capability and organizational slack. FDI-inward or outward-influences a firm's innovative activities as it introduces competition in host countries and accelerates local firms' innovative processes in order to stay competitive. Innovation can be viewed as the catalyst for growth within an organization. Innovation is a change in a product offering, service, business model or operations, which meaningfully improve the experience of stakeholders. Implication for managers is that innovation should be meaningful in order to have an impact on business performance. It is important to understand what really innovation means (Gertz and Robinson, 2003). We recommend managers to be innovative and take advantage of FDI that renders innovative and competitive advantage through technology transfer.

Further, FDI enables firms to deploy resources to build product development capability in order to be market oriented. Developing market orientation requires managers to review their resource allocation mechanism and optimize it to create a buffer mechanism to manage unpredictability or turbulence in the marketplace. Given the critical role of resources, the presence or absence of it can have impact on market orientation-business

performance relationship. For example, some resources may seem more elusive than others. Some slack resources can be tied in day-to-day operations while others are more tangible and can be kept aside and easily accounted for. We recommend managers adjusting organizational slack even if it can be risky (George, 2005).

A country's economic growth is mainly the result of FDI. It can take the form of partnerships, mergers, joint ventures, acquisition of assets and greenfield ventures in which a firms builds its own business or manufacturing facilities in a foreign country (Lau and Bruton, 2008). However, managers should be cognizant of the fact that FDI can also have a negative impact in case of foreign acquisitions on the propensity to perform innovation activities (Stiebale and Reize, 2010).

FDI in China is now more than $80 billion per year compared to $2 billion in India or other competing countries such as Japan. The majority of the FDI flow into China is in the non-financial sector. This means that foreign firms use China to manufacture products for both exports and for sale in other markets (Lau and Bruton, 2008). It is suggested that East Asian countries need to increase their investment in infrastructures, human capital development, and facilities for enhancing international trade and the investment climate (Kotrajaras et al., 2011). China has a GDP growth of approximately 9 per cent annually, which is an aggregate increase of 700 per cent since its globalization program began in 1978. If this growth continues, China will be the world's largest economy in terms of GDP in 25 years. Clearly, power of FDI cannot be underestimated whether on firms or nations.

References

Bourgeois, L.J. (1981). On the Measurement of Organizational Slack. *Academy of Management Review*, 6 (1), pp. 29-39.

Chandy, R.K. and Tellis, G.J. (2000). The Incumbent's Curse? Incumbency, Size, and Radical Product Innovation. *Journal of Marketing*, 64 (3), pp. 1-17.

Chang, S. and Rhee J.H. (2011). Rapid FDI Expansion and Firm Performance. *Journal of International Business Studies*, 42, pp. 979-94.

Clark, J. and Guy, K. (1998). Innovation and Competitiveness: A Review, *Technology Analysis & Strategic Management*, 10 (3), pp. 363-95.

Collis, D. J. (2006). Research Note: How Valuable are Organizational Capabilities? *Strategic Management Journal*, 15 (1), pp. 143-152.

Day, G.S. (1994). The Capabilities of Market-Driven Organizations. *Journal of Marketing*, 58 (4), pp. 31-44.

Day, G.S. and Wensley, R. (1988). Marketing Theory with a Strategic Orientation. *Journal of Marketing*, 47 (Fall), pp. 79-89.

Fan, E. X. (2002). Technological Spillovers from Foreign Direct Investment – A Survey. Asian Development Bank, 33, pp. 1-28.

Getz, I. and Robinson, A. G. (2003). Innovate or Die: Is that a Fact?. *Creativity and Innovation Management*, 12 (3), pp. 130-36.

George, G. (2005). Slack Resources and the Performance of Privately held Firms. *The Academy of Management Journal*, 48 (4), pp. 661-76.

Greenley, G.E. (1995). Market Orientation and Company Performance: Empirical Evidence from UK Companies. *British Journal of Management*, 6 (1), pp. 1-13.

Han, J.K., Kim, N. and Srivastava, R.K. (1998). Market Orientation and Organizational Performance: Is Innovation a Missing Link? *Journal of Marketing*, 62 (4), pp. 30-45.

Hanousek, J., Kocenda, E. and Mathilde, M. (2011). Direct and Indirect Effects of FDI in Emerging European Markets: A Survey and Meta-Analysis. *Economic Systems,* pp. 1-36.

Jaworski, B.J. and Kohli, A.K. (1993). Market Orientation: Antecedents and Consequences. *Journal of Marketing*, 57 (July), pp. 53-70.

Jensen, M. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *An Economic Review*, 76 (2), pp. 323-329.

Kohli, A.K. and Jaworski, B. (1990). Market Orientation: The Construct, Research Propositions, and Managerial Implications. *Journal of Marketing*, 54 (April), pp. 1-18.

Kotrajaras, P., Tubtimtong, B. and Wiboonchutikula, P. (2011). Does FDI Enhance Economic Growth? New Evidence from East Asia, *ASEAN Economic Bulletin*, 28 (2), pp. 183-202.

Lin, H. and Lin, E.S. (2010). FDI, Trade, and Product Innovation: Theory and Evidence. *Southern Economic Journal*, 77 (2), pp. 434-64.

Liu, X. and Zou, H., (2008). The Impact of Greenfield FDI and Mergers and Acquisitions on Innovation in Chinese High-tech Industries. *Journal of World Business*, 43 (3), pp. 352-64.

Love, G.E., and Nohria, N. (2005). Reducing Slack: The Performance Consequences of Downsizing by Large Industrial Firms. *Strategic Management Journal*, 26 (12), pp. 1087-1108.

Narver, J.C. and Slater, S.F. (1990). The Effects of a Market Orientation on Business Profitability. *Journal of Marketing*, 54 (4),pp. 20-35.

Peng M. W. and Tan, J. (2003). Organizational Slack and Firm Performance during Economic Transitions: Two Studies from an Emerging Economy. *Strategic Management Journal*, 24, pp. 1249-63.

Phan, P. and Hill C. (1995). Organizational Restructuring and Economic Performance in Leveraged Buyouts: An Ex-post Study. *Academy of Management Journal*, 38 (3), pp. 704-739.

Robinson, W.T. (1988). Marketing Mix Reactions to Entry. *Marketing Science*, 7 (4), pp. 368-85.

Singh, S. (2009). How Market Orientation and Outsourcing Create Capability and Impact Business Performance. *Thunderbird International Business Review,* 51 (5), pp. 457-471.

Singh, S. (2003). Effects of Transition Economy on the Market Orientation Business Performance Link: The Empirical Evidence from Indian Industrial Firms. *Journal of Global Marketing,* 16 (4), pp. 73-96.

Singh, J. V. (1986). Performance, Slack, and Risk Taking in Organizational Decision Making. *The Academy of Management Journal*, 29 (3), pp. 562-85.

Slater, S.F. and Narver, J.C. (1995). Market Orientation and the Learning Organization. *Journal of Marketing*, 59 (July), pp. 63-74.

Stiebale, J., and Reize, F. (2011). The Impact of FDI through Mergers and Acquisitions on Innovation in Target Firms. *International Journal of Industrial Organization*, 29 (2), pp. 155-67.

Zhao, Z. and Zhang, K. H. (2010). FDI and Industrial Productivity in China: Evidence from Panel Data in 2001–06. *Review of Development Economics*, 14 (3), pp. 656-65.

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Use of e-Commerce by the SMEs in a Developing Region in India - A Perception and Adoption Analysis

Bibhuti Bhusan Mishra[1] and Bidhu Bhusan Mishra[2]

ABSTRACT

Information and communication technology (ICT) has brought about a complete change into every walk of life today with business not being an exception to it. Organisations are increasingly embracing new generation business tools, like the e-Commerce and e-Business for attaining their goals. E-Commerce is emerging as a new way of helping business enterprises to compete in the marketplace and thereby contributing to their economic success. In an increasingly competitive and globalised world, SMEs need to compete more effectively to boost domestic economic activities and contribute toward increasing export earnings. SMEs also continue to play an important role in increasing employment and thus contributing to poverty reduction on a sustainable basis. With spread of technology and infrastructure, rural businesses will be the biggest beneficiaries of e-Commerce. The Internet can help small enterprises to present themselves to the world. With this backdrop, this paper tries to present the e-Commerce scenario in the SMEs of a developing region in India, i.e., Orissa, the prospect of future growth and the empirical analysis of the factors influencing the adoption of e-Commerce. Through a survey of sample organisations it was found that, although the rate of adoption is not satisfactory, but the entrepreneurs/managers are quite optimistic regarding the e-Business applications. This paper also tries to state an analytical view of the e-Commerce adoption scenario by revealing the relationship between the factors like Organisational Support, Managerial Productivity, Decision Aids and Organisational Readiness, External Pressure, Compatibility, Perceived Ease of Use and Perceived Usefulness with the perception of these SMEs' owners/managers. Statistical analysis, like Multivariate Data Analysis through Canonical Correlation Analysis (CCA) is done to test empirically the average scores of variables under perceived strategic value and adoption across present position (in years), average scores of variables under perceived strategic value and adoption across type of industry to test the significance of these factors. Finally, a model is proposed for the adoption of ICT and e-Business technologies, by considering the overall business scenario of the study area, which includes both the internal as well as the external business environments of the sample organisations.

Keywords: ICT, e-Commerce, SMEs, CCA, Multivariate Analysis, Business Environments

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1. Introduction

Use of Internet by SMEs is of particular importance, which stands to gain or lose competitive position as a result of their own action (Saulnier and Rosson, 2006). Several conceptual models have been proposed concerning the adoption of ICT and Internet technology and a growing number of empirical studies shed light on SMEs' practices. The scope of this paper is to provide a better understanding of the views of the owners / managers regarding the adoption of e-Commerce in the sample organisations. The study has also tried to make a comparison of different parameters suggested in Technology Adoption Model (TAM) across the industries. Innovative behaviour, such as adopting Internet technology, should not be seen as a single and discrete event. Rather the adoption decision marks a first step in a continuing commitment to develop new ways of conducting business.

A developing country can become industrialised and modernised if it can extensively apply IT to enhance productivity and international competitiveness, develop e-Commerce and e-Governance applications. An information-based society or knowledge based society is composed of IT products, IT applications in society and economy as a whole. Many countries in Asia are taking advantage of e-Commerce through opening of economies, which is essential for promoting competition and diffusion of Internet technologies. The Internet is boosting efficiency and enhancing market integration in developing countries.

It is against this backdrop the Government of India has long recognised the need for development of IT industry and information infrastructure as these are twin engines for growth of the economy. Deeper penetration of IT applications in the economy, and in the society as a whole can help boost the economy. E-Commerce applications can make it easier for the country to better integrate with the global markets, the e-Marketplace. This has led the government, over the last few years to formulate liberal policies for the development and growth of the IT industry.

There is a huge unexplored market in India and the existing security offerings are scarce and fragmented. SMEs in India are under a great deal of pressure from the bigger customers to create a secured e-biz infrastructure. SMEs are increasingly seeing the benefits arising from e-Commerce as expanded geographical coverage is giving them a larger potential market into which they can sell their products and services. Some of the key industries that have high potential for early adoption of e-Commerce are the financial services (stock exchanges and banks), automobiles, retail, travel, IT and manufacturing sectors, etc. However, for the SME sector, some of the concerns with e-Commerce revolve around fear or eroding their existing customer base and technical issues arising out of lack of computer expertise and the cost of necessary hardware and software. These are some of the preview highlights of a survey conducted by NASSCOM to determine the status of Internet and electronic commerce proliferation in India.

The proliferation of business-to consumer e-Commerce activities has created a need to understand how and why people participate in e-Commerce activities. Through an empirical study of 73 firms (some of them SMEs), Subramanian and Nosek (2001) identified three factors that were found to create strategic value in IS: (i) operational support, (ii) managerial productivity, and (iii) strategic decision aid. In each of these factors they utilised different items that were found to have high convergent validity and reliability. Their factors seem to be applicable to e-Commerce.

Lacovou et al. studied factors influencing the adoption of electronic data interchange (EDI) by seven SMEs in different industries. They included

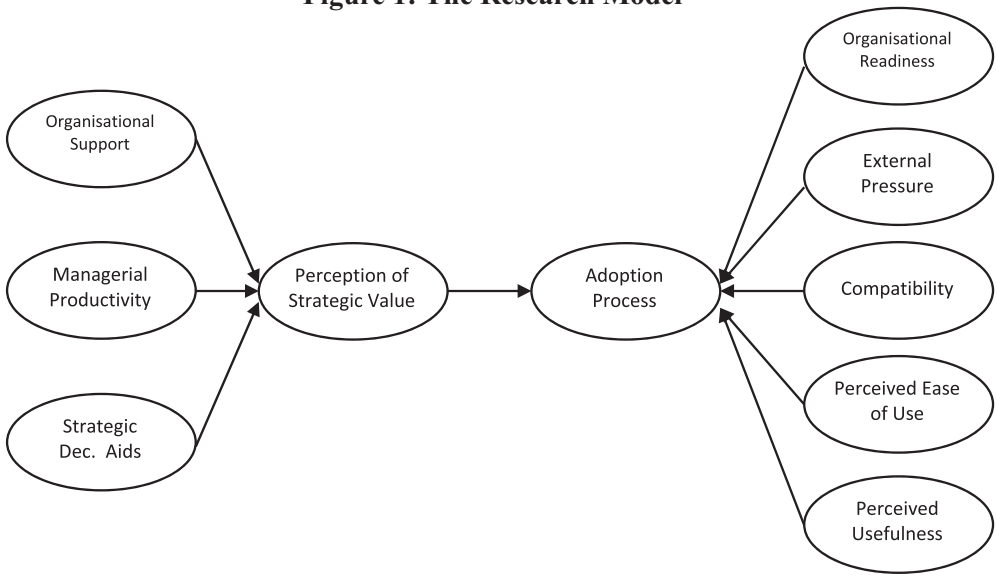
perceived benefits (measured through awareness of both direct and indirect benefits), organisational readiness (financial and technological resources), and external pressure (competitive pressure and its imposition by partners) in their study. The results suggested that a major reason that small firms become EDI-capable is due to external pressure (trading partners). In a similar study, Chwelos et al. (2001) considered the same factors influencing the adoption of EDI in 286 SMEs. They considered the trading partner as influencing external pressure and readiness while external pressure was considered to be influenced by the dependency on trading partner and enacted trading partner power. Kuan and Chau (2001) determined the factors influencing the adoption of EDI in small businesses using a technology, organisation, and environment framework.

Based on the literature, Premkumar and Roberts (1999) identified the use of various communication technologies and the factors that influence their adoption in small businesses located in rural US communities. The results suggested that relative advantage, top management support, and competitive pressure were factors influencing the three communication technologies. Compatibility, complexity, external pressure, and organisational size were found to be significant discriminators between adopters and non-adopters of online data access technology.

Mirchandani and Motwani (2001) investigated the factors that differentiate adopters from non-adopters of e-Commerce in small businesses. The relevant factors included enthusiasm of top management, compatibility of e-Commerce with the work of the company, relative advantage perceived from e-Commerce, and knowledge of the company's employees about computers. The degree of dependence of the company on information, managerial time required to plan and implement the e-Commerce application, the nature of the company's competition, as well as the financial cost of implementing and operating the e-Commerce application were not influencing factors.

The above studies indicate that adoption of e-Commerce in SMEs is influenced by the strategic value of certain information technologies to top managers besides other factors. Based on these studies, the present study adopted the revised model suggested by Grandon and Pearson (2004) with compatibility (CC) as the additional variable (Figure 1).

Figure 1: The Research Model



2. Objectives

The present study tries to examine the relationship between IT adoption and the value creation for the firms. The broad objective of the study is to understand the status and factors of adoption of IT in SMEs in the developing region of India (Orissa). The specific objectives are:

i. To identify the factors which affect the adoption of IT in SMEs.
ii. To examine the factors influencing the perceptions of owners and managers in SMEs on adoption of IT.
iii. To suggest a model for improvement of IT adoption by SMEs in the study area.

3. Research Methodology

3.1 Data Source

The present study is mainly based on field survey and is exploratory in nature. The subjects for the study are the top executives of the firm who are either the top managers or the owners. The units for the study are mainly of small and medium sized enterprises (SMEs) from a variety of industries operating in Orissa and are registered with the District Industries Centres (DICs) of the state. The sources of data are mainly primary in nature, which have been collected from the owners / top managers through a structured questionnaires designed for the purpose.

3.2 Sample Profile

The present study has been conducted on the small and medium enterprises (SMEs) in the state of Orissa, India. The sample for the study comprises of 141 owners / managers of the SMEs. While choosing a respondent, purposive sampling method was followed to give proper representation to different types of industries across different product category.

3.3 Instrument Development and Data Collection

As stated above, the data for the study were collected through a structured questionnaire from the respondents. After reviewing the literature, relevant dimensions were identified to draft the preliminary questionnaire. Then a pilot survey was conducted to solicit the opinion regarding development of the questionnaire. For designing the questionnaire, the scale suggested by Grandon and Pearson (2004) was suitably modified for the purpose. Respondents were asked to complete the survey that has the following major sections for drafting the questionnaire:

i. Demographic questions (respondent's gender, age, education, years of work in present position, and years of work in present firm).
ii. General questions about the firm (number of employees and industry).
iii. Questions about the technology in the organization (number of PCs, presence of Internet Service Provider (ISP), presence of web site, and utilisation of e-Commerce).
iv. Questions about the extent to which IT is perceived as contributing / hindering factor to the SMEs (benefits and barriers).
v. Questions to measure the factors involved in e-Commerce adoption.

A seven-point Likert scale, from strongly disagree to strongly agree, has been used to measure the questions about perceived strategic value and adoption of IT.

The results of the pilot study were validated by conducting the Reliability Test (Chronbach's α). The final questionnaire has six sections. The first two sections deal with demographic profile of the respondent and the unit. The third section deals with the perception of strategic value of e-Commerce and the fourth section with adoption of e-Commerce. The last two sections enumerate the perceived benefits and barriers by using e-Commerce. Further, a follow up interview was conducted with the respondents to check the reliability and correctness of the data.

3.4 Tools and Techniques Used for Data Analysis

The data collected through the questionnaires were tabulated in a data sheet, and were processed through the statistical package (SPSS). Cross tabulations and frequency distributions were made to understand the underlying relationships among the demographic variables and factors of adoption under study keeping the broad objectives in mind. The perception of respondents regarding the benefits and barriers were also tabulated by calculating the weighted average and then compared across different demographic parameters by using Analysis of Variance (ANOVA). Correlation and Multivariate Analysis, such as Factor Analysis and Canonical Analysis have been used in the study.

4. The Research Model

The research model taken in the study has two basic ingredients, i.e., (i) perception of strategic value of e-Commerce and (ii) the adoption of e-Commerce.

4.1 Perception of Strategic Value of e-Commerce

In Perception, the three major variables are the sources of perception of the strategic value of e-Commerce. They are described as:

Organisational Support: It measures how e-Commerce can reduce costs, improve customer services and distribution channels, provide effective support role to operations, support linkages with suppliers, and increase ability to compete.

Managerial Productivity: It suggests how e-Commerce can enhance access to information, provides a means to use generic methods in decision-making, improves communication in the organisation, and improves productivity of managers.

Strategic Decision Aids: It defines how e-Commerce can support strategic decisions of managers, support cooperative partnerships in the industry, and provide information for strategic decisions.

4.2 Adoption of e-Commerce

In the process of adoption of e-Commerce, the five different variables used as identified in prior research are grouped under this head. They are as follows:

Organisational Readiness: This is assessed by the financial and technological resources that the company may have as well as factors dealing with the compatibility and consistency of e-Commerce with firm's culture, values, and preferred work practices (existing technology infrastructure and top management's enthusiasm to adopt e-Commerce).

Compatibility: It suggests that how the perception of e-Commerce is consistent with the existing culture, values, preferred work practices and technology infrastructure.

External Pressure: This is assessed by incorporating five items, such as competition, social factors, and dependency on other firms already using e-Commerce, the industry, and the government.

Perceived Ease of Use: It suggests that how easily e-Commerce can be adopted and practiced in the company as perceived by the managers / entrepreneurs who are the ultimate decision makers in that company.

Perceived Usefulness: It suggests that to which extent the managers/entrepreneurs who are the ultimate decision makers of a company perceive the usefulness of e-Commerce to their company.

5. Statistical Analysis

A seven point Likert scale is used to measure the questions about perceived strategic value and adoption of e-Commerce. The extent to which the strategic value of e-Commerce was perceived as a contributing factor to adoption of e-Commerce was measured through fifteen parameters. Similarly, twenty-three parameters were chosen to measure the factors influencing adoption of e-Commerce. Responses from the entrepreneurs / managers of 141 sample units were analysed to understand the perceived strategic value and adoption of e-Commerce in these units.

In order to test the model, Confirmatory Factor Analysis is conducted to measure whether the number of factors involved in the two main constructs, i.e., perceived strategic value and adoption of e-Commerce, confirm to the proposed model. The construct reliability or internal consistency is assessed through Cronbach's α. Table 1 provides the support to construct reliability, where the values for alpha in respect of all factors are greater than 0.5.

Table 1: Reliability Analysis

Construct	Cronbach's α
Perceived strategic value	
Organisational Support (OS)	0.741
Managerial Productivity (MP)	0.817
Decision Aids (DA)	0.695
Overall - Perceived strategic value	0.892
Adoption of e-Commerce	
Organisational Readiness (OR)	0.806
Compatibility (CC)	0.901
External Pressure (EP)	0.525
Ease of Use (EU)	0.956
Perceived Usefulness (PU)	0.947
Overall- Adoption of e-Commerce	0.942

Source: Computed from Data.

6. Demographic Parameters, Perceived Strategic Value and Adoption of e-Commerce

Different demographic parameters, such as age, gender, qualification, and number of years present in the present position and present company / firm determine the perception and adoption of e-Commerce in a particular company / firm. It is argued that managers and entrepreneurs of younger age group have more exposure to computer and e-media. Therefore, they can perceive the advantages of use of e-Commerce in their company and accordingly more likely to adopt e-Commerce. Similar is the case for managers /entrepreneurs with high qualification and with presence in that particular position and particular company / firm for a longer period of time. Similarly, perception and adoption of e-Commerce also vary according to type of industries. In order to test whether the perceived strategic value and adoption constructs and the variables under these two constructs differ across demographic variables, the average scores for all the variables have been calculated and tested through 'F' test (Table 2 and Table 3).

Table 2: Average Scores of Variables under Perceived Strategic Value and Adoption across Present Position (in years)

Construct	Variable	Present Position (In Years)			F Value	Significance
		Up to 05	05 - 10	Above 10		
Perceived Strategic Value	Organisational Support	5.54	5.34	4.98	5.444	0.005
	Managerial Productivity	5.90	6.09	5.38	5.305	0.006
	Decision Aids	5.50	5.86	5.13	4.846	0.009
Adoption	Organisational Readiness	4.68	5.27	3.80	6.599	0.002
	Compatibility	5.39	5.46	4.70	4.351	0.015
	External Pressure	3.74	3.96	4.10	2.034	0.135
	Ease of Use	5.15	4.52	4.39	3.776	0.025
	Perceived Usefulness	5.45	5.91	5.29	4.519	0.222

Source: Computed from Data.

The average scores for the variables under perceived strategic value and adoption construct across years of present position of the managers/ entrepreneurs along with their 'F' ratio is given in Table 2. The table indicates that the managers/ entrepreneurs with 5 to 10 years of presence in the present position assigned higher average scores to the variables 'managerial productivity', 'decision aids', 'organisational readiness', 'compatibility', and 'perceived usefulness'. The 'F' ratio indicates that there was difference in the average scores assigned by managers/entrepreneurs with different years of presence in the present position except for the variable 'external pressure' and 'perceived usefulness' at five per cent level of significance.

Table 3: Average Scores of Variables under Perceived Strategic Value and Adoption across type of Industry

Construct	Variable	Type of Industry								F Value	Significance
		Manufacturer	Educational	Transportation	Wholesale	Construction	Health care	Retail	Information Technology		
Perceived Strategic Value	Organisational Support	5.36	5.33	5.00	4.74	4.91	5.73	5.52	5.68	2.61	0.02
	Managerial Productivity	5.53	6.00	6.50	5.37	5.00	5.94	6.19	6.42	6.34	0.00
	Decision Aids	5.37	6.50	6.00	4.90	4.25	5.78	6.07	5.57	5.44	0.00
Adoption	Organisational Readiness	4.22	5.67	5.50	5.20	4.00	4.28	4.25	5.40	2.99	0.01
	Compatibility	4.99	6.73	5.20	5.36	3.60	5.16	4.86	6.08	8.34	0.00
	External Pressure	3.85	2.00	4.20	3.48	4.80	4.29	4.29	3.77	8.09	0.00
	Ease of Use	4.63	6.80	2.80	4.36	4.20	4.33	4.10	6.14	10.74	0.00
	Perceived Usefulness	5.09	7.00	7.00	4.40	5.00	5.17	5.91	6.20	5.46	0.00

Source: Computed from Data.

Table 3 presents the average score for all the variables under perceived strategic value and adoption constructs across the type of industry. Average scores for all the variables perceived under the two constructs are statistically significant at five per cent level of significance indicating that the average scores for all the variables across type of industry were not same and there was a difference among them.

7. Canonical Correlation Analysis

Canonical Correlation Analysis (CCA) that studies the interrelationships among sets of multiple criterion (dependent) variables and multiple predictor (independent) variables is conducted to explore how the perceptions of strategic value influence the decision to adopt e-Commerce. In order to test the significance of the Canonical functions, the guidelines given by Hair et al. are followed. They suggested three different measures to interpret the Canonical functions:

i. The significance of the 'F'-value given by Wilk's Lambda, Pillai's Criterion, Hotteling's Trace, and Roy's GCR.
ii. The measures of overall model fit given by the size of the Canonical correlations.
iii. The redundancy measure of shared variance.

Table 4 shows the corresponding Multivariate test of significance with 15 degrees of freedom. These test statistics are for the full model, which means they evaluate the shared variance between the predictor and criterion variables across all of the Canonical functions. Nevertheless, by far, the most common method used is the Wilk's Lambda (λ), as it tends to have most general applicability. However, all these test statistics in this case are statistically significant at 0.01 levels. Particularly, the Wilk's Lambda takes a value 0.201 which is statistically significant at one per cent level of significance.

Table 4: Multivariate Test of Significance

Test Name	Value	Approx. F	Hypoth. DF	Sig. of F
Wilks' lambda	0.201	19.321	15	0.0000
Pillai's trace	1.574	16.878	15	0.0000
Lawley-Hotelling trace	2.390	20.984	15	0.0000
Roy's largest root	0.610			

Source: Computed from Data.

The effect size of the full model can be judged through Wilk's Lambda which represents something of an inverse effect size or the amount of variance not shared between the variable sets. Therefore, by taking $1 - \lambda$, the over all effect of the full model can be judged. In this case, $1 - \lambda$ is 0.799, which indicates that nearly 80 per cent variance is shared between the variable sets. Therefore, the full model is both statistically significant and has a large effect size.

Table 5 shows the measures of overall model fit in the three Canonical functions. The strength of the relationship between the Canonical covariates is given by the Canonical correlation. The squared Canonical correlation is the simple square of the Canonical correlation and represents the proportion of variance (i.e., variance accounted for effect size) shared by the two synthetic variables. The measures of overall model fit indicate that all the three Canonical functions are statistically significant at 0.01 levels. However, the Canonical

R^2 for the first Canonical function is 0.61, which indicates that the first canonical function is able to explain 61 per cent variance shared by the two synthetic variables. The last two functions only explained 39.3 per cent and 15.0 per cent respectively, of the remaining variance in the variables set after the extraction of the prior function. Therefore, the first Canonical function is taken for further analysis and interpretation. As is observed from Table 5 the Canonical correlation coefficient in respect of first Canonical function is 0.781. This is statistically significant at one per cent level of significance which concluded that perceived strategic value and adoption of e-Commerce are highly correlated.

Table 5: Measures of Overall Model Fit

Canonical Function	Canonical Correlation	Canonical R^2	F - Statistics	Probability
1	0.781	0.610	217.45	0.000
2	0.627	0.393	89.83	0.000
3	0.388	0.150	22.08	0.000

Source: Computed from Data.

Even though the first Canonical function was deemed to be significant, it has been recommended that Redundancy Analysis be used to determine which functions to use in the interpretation. Redundancy is the ability of a set of independent variables to explain the variation in the dependent variables taken one at a time.

Table 6 summarises the Redundancy analysis for the dependent and independent variables for the three Canonical functions. The results indicate that the first Canonical function accounts for the highest proportion of total redundancy (68.25 per cent including both dependent and independent variables), the second one accounts for 29.59 per cent, and the third one accounts only for 2.16 per cent. In addition, the Redundancy indices are higher for the first Canonical function than for the second and third. Therefore, only the first Canonical function is considered for interpretation.

Table 6: Canonical Redundancy Analysis

Canonical Function	Variable	Shared Variance	Canonical R^2	Redundancy Index	Proportion of Total Redundancy (%)
1	Dependent	0.324	0.610	0.197	14.18
	Independent	0.123		0.751	54.07
2	Dependent	0.292	0.393	0.115	8.28
	Independent	0.753		0.296	21.31
3	Dependent	0.072	0.150	0.011	0.79
	Independent	0.124		0.019	1.37

Source: Computed from Data.

Identification of the contributing variables can be critical to informing theory. That is, what variables are contributing to this relationship between the variable sets? Interpretation of both standardised weights and structure coefficients are necessary for understanding variable importance in a CCA. Standardised Canonical Coefficients (known as also Standardised Weights) reflect the relative contribution of one predictor to the criterion given the contribution of other predictors while the structure coefficients reflect the direct contribution of one predictor to the predictor criterion variable regardless of other predictors. Indeed, structure coefficients increase in importance when the observed variables in the model increase in their correlation with each other. Because multivariate researchers can purposefully use variables that are related, structure coefficients are critical for deciding what variables are useful for the model. Therefore, the interpretation of both standardized weights and structure coefficients are necessary for understanding variable importance in a CCA. For emphasis, structure coefficients above 0.45 are underlined following a convention in many factor analyses.

Table 7 presents the Standardised Canonical function coefficients and structure coefficients for first Canonical function. Looking at the coefficients, it is observed that relevant criterion variables are primarily *external pressure* (EP) followed by *organisational readiness* (OR), *ease of use* (EU) and *perceived usefulness* (PU) with *compatibility* (CC) making secondary contributions to the synthetic criterion variable. Regarding the predictor variable, only *organisational support* (OS) is the primary contributors to the predictor synthetic variable with a secondary contribution by *managerial productivity* (MP). *Decisions aids* (DA) does not appear to contribute strongly to the perceived strategic value. Looking at the structure coefficients for the entire function, it is observed that all the variables under perceived strategic value except decision aids are positively related to criterion variables.

Table 7: Standardised Canonical Coefficients and Structure Canonical Coefficients for Perceived Strategic Value and Adoption

Construct	Variable	Standardised Canonical Coefficients	Structure Canonical Coefficients
Perceived Strategic Value	Organisational Support	-0.548	-0.380
	Managerial Productivity	-1.366	-0.464
	Decision Aids	1.593	0.099
Adoption	Organisational Readiness	-0.677	-0.630
	Compatibility	0.103	-0.462
	External Pressure	-0.731	-0.640
	Ease of Use	-0.456	-0.566
	Perceived Usefulness	0.199	-0.527

Source: Computed from Data.

Different type of industries behaves differently as regard to perception and adoption of e-Commerce in their companies/firms. Due to small sample size it becomes impossible to compute Canonical correlation coefficient for all the type of industries under study except manufacturing. The details of Canonical correlation coefficient for manufacturing industry are given in Table 8. The table shows that the first Canonical coefficient which has a value of 0.883, explains about 78 per cent variance. The value of the structural coefficients indicates that none of the variables contributes primarily to the perceived strategic value construct, whereas only external pressure, perceived usefulness and organizational readiness contribute primarily to adoption construct. All the variables are positively correlated except decision aids under perceived strategic value construct.

Table 8: Standardised Canonical Coefficients and Structure Canonical Coefficients for Perceived Strategic Value and Adoption for Manufacturing Industry

Construct	Variable	Manufacturing Industry	
		Standardised Canonical Coefficients	Structure Canonical Coefficients
Perceived Strategic Value	Organisational Support	0.347	0.167
	Managerial Productivity	2.139	0.281
	Decision Aids	-2.354	-0.145
Adoption	Organisational Readiness	0.738	0.528
	Compatibility	-0.599	0.217
	External Pressure	0.673	0.908
	Ease of Use	0.202	0.426
	Perceived Usefulness	0.066	0.645
Canonical Correlation	First Function	0.883	
	Second Function	0.714	
	Third Function	0.474	
Canonical R^2	First Function	0.780	
	Second Function	0.509	
	Third Function	0.225	

Source: Computed from Data.

Using theoretical foundations from established information systems (IS) implementation research, innovation diffusion theories, e-Commerce and small business literature, the present research seeks to explain e-Commerce implementation success by examining factors that may be associated with the adoption of e-Commerce within organisations and between its business partners. It can be best implemented through developing a model for adoption of e-Commerce by SMEs. The relationships of these factors with the adoption of e-Commerce are shown in Figure 2. The model proposes five types of factors relevant for the adoption and diffusion of e-Commerce in SME sector. These factors are communication, organisation, innovation, industry and the national

characteristics as illustrated in the above figure. Some of these factors may be more important at the time the organisation is deciding whether to adopt e-Commerce technology than in influencing the extent to which e-Commerce is implemented in the organisation.

Figure 2: Proposed e-Commerce Adoption Model for SMEs

On the other hand, some other factors may be important both in the adoption decision and in the subsequent implementation. Many of the factors identified here are suggested by the literature, which attempts to distinguish adopters from non-adopters. Further, it is seen that some of these factors may also impact the adoption decision and the extent to which e-Commerce is implemented in an organisation.

8. Main Findings and Conclusion

The research model taken in the study has two basic ingredients, i.e., perception of strategic value of e-Commerce and adoption of e-Commerce. Three major variables, i.e., organizational support, managerial productivity, and decision aids, constitute the perception of strategic value construct, whereas organizational readiness, compatibility, external pressure, ease of use and perceived usefulness constitute the adoption construct.

The difference in average scores for the eight variables under the two constructs across different demographic variables has been tested through Analysis of Variance. The results of ANOVA are as follows:

i. The difference in average scores for all the variables in respect of male and female entrepreneurs / managers are statistically significant except for the variable 'external pressure'.
ii. There exists difference in the average scores assigned by managers / entrepreneurs with different years of presence in the present position except for the variable 'external pressure' and 'perceived usefulness'.
iii. Average scores for all the variables under the two constructs across type of industry are not same and there exists a difference among them.

Canonical Correlation Analysis has been undertaken to find out nature of relationship between the two constructs and among the variables. The major findings of Canonical Correlation Analysis are as follows:

i. There exists a high relationship between the two constructs, i.e., perception of strategic value and adoption of e-Commerce (Canonical Correlation Coefficient is greater than 0.75).
ii. External pressure (EP), organizational readiness (OR), ease of use (EU) and perceived usefulness (PU) are the primary criterion variables with compatibility (CC) making secondary contributions to the synthetic criterion variable. Regarding the predictor variable, only organizational support (OS) is the primary contributor to the predictor synthetic variable.
iii. All the variables under perceived strategic value and adoption are contributing heavily to these constructs in case of the companies/firms where the managers/ entrepreneurs are there for more than ten years.

References

Bacon, L. D. (1997). *Using Amos for Structural Equation Modeling in Market Research.* SPSS White Paper, SPSS Inc.

Bagozzi, R. P. (1994). *Structural Equations Models in Marketing: Basic Principles, In Principles of Marketing Research*. Cambridge: Blackwell, pp. 317 - 385.

Carroll, J. D. (1953). An Analytic Procedure for Approximating Simple Structure in Factor Analysis. *Psychometrika, 18,* pp. 23-27.

Chwelos et al. (2001). *Considered the same Factors Influencing the Adoption of EDI in 286 SMEs*.

Davison, M. L. (1992). *Multidimensional Scaling, Malabar*. Fl, CA: Krieger Publishing.

Govt. of Orissa (2009). *Economic Survey of Orissa*.

Govt. of Orissa (2004). *Economic Survey of Orissa*.

Grandon, E. E. & Pearson, J. M. (2004). Electronic Commerce Adoption: An Empirical Study of Small and Medium US Business. *Information & Management,* Vol. 42, pp. 197 - 216.

Hair, J. F. et al. (1992). *Multivariate Data Analysis (3rd ed.).* New York: Macmillan.

Joreskog, K. G. (1973). *Analysis of Covariance Structures, In Multivariate Analysis-III.* P. R. Krishnaiah, ed. New York: Academic Press, pp. 263-285.

Kim, J. & Mueller, Charles W. (1978). *Introduction to Factor Analysis: What it is and how to do it?*. Newbury Park, CA: Sage Publications.

Kuan & Chau (2001). *Determined the Factors Influencing the Adoption of EDI in Small Businesses using a Technology, Organization, and Environment Framework.*

Lacovou et al., *Studied Factors Influencing the Adoption of Electronic Data Interchange (EDI) by seven SMEs in different Industries.*

Mirchandani & Motwani (2001). *Investigated the Factors that Differentiate Adopters from Non-adopters of e-Commerce in Small Businesses.*

Premkumar & Roberts (1999). *Identified the use of Various Communication Technologies and the Factors that Influence their Adoption in Small Businesses located in Rural US Communities.*

Romesburg, H. C. (1984). *Cluster Aanalysis for Researchers*. Belmont, CA: Lifetime Learning Publications.

Rummel, R.J. (1984). *Applied factor Analysis.* Evanston, IL: Northwestern University Press.

Saulnier, M. & Rosson, P. (2006). *E-Business Readiness in Canadian SMEs*. in M. Bhattacharya (ed.) E-Innovation: Trends and Applications, The Icfai University Press, Hyderabad, pp. 204 – 233.

Subramanian, G. H. and Nosek, J. T. (2001). An Empirical Study of the Measurement and Instrument of Perceived Strategy Value of Information Systems. *Journal of Computer Information Systems*, (Spring), pp. 64 – 69.

Wiley, D. E. (1973). *The Identification Problem for Structural Equation Models with unmeasured Variables*. In Structural Equation Models in the Social Science, A. S. Goldberger and Ducan, O. D. (ed.) New York: Seminar Press, pp. 69–83.

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Higher Education in Cambodia - An Analysis on Growth, Private Cost and their Determinants

In Viracheat[1]

ABSTRACT

A modest attempt is made in this study to analyze the growth of higher education in Cambodia over the period 1999-2000 to 2008-09 and also to examine the factors determining growth of higher education to enable in understanding the higher educational scenario of the country. Further, the study focuses on computing the private cost of higher education along with identifying the factors influencing the private cost of higher education in the country. For this purpose, from four selected university/higher education institutions (both public and private), a total of 500 sample respondents are selected on the basis of proportional stratified random sampling to collect information on private costs of education and other related aspects. The study covers the students of both under graduate and post graduate programs.

The study reveals that over the last one decade tremendous growth in higher education has been taken place in the country. Moreover, among other factors, the number of students passed out from high schools had a significant positive impact on the enrollment at higher education level in the country. Absolutely the average academic cost of technical education was higher than general education. Again, both in general and technical education, the percentage of the average private academic cost of tuition fee to total average private academic cost was highest in the year under study. For all the components, the average private academic costs of the sample students of post graduate programs were found to be much higher than that of undergraduate program in general education. The average incidental cost of technical education was higher than general education. Among several components of incidental cost, the sample students were found to be spending more on transportation. Similarly, with regard to private incidental cost of different levels of general education it is revealed that undergraduate students spent less than the students of post graduate level. The average private incidental costs of all the components in post graduate programs were much higher compared to undergraduate programs in general education in 2009. Further, it reveals that the annual income of the family and number of earning members in the family had significant impact on the private cost of higher education.

Key Words: Growth of Higher Education, Private Cost, Private Academic Cost, Private Incidental Cost, Cost Sharing

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1. Introduction

In the rapidly changing globalize economy, knowledge is widely considered as the key driving force. The global competitiveness of an economy as well as its potentiality to generate employment is dependent on the availability of skilled and trained manpower. It is in this context, education is regarded as an important contributing factor in the creation of human capital. Further, it is considered as an investment with economic return both for individuals as well as society. It is strongly felt that education contributes to the socio-economic development by endowing individuals with the means to improving their knowledge, skills and capability for productive work. In particular, higher education, besides building necessary skills and competence for achieving both personal and social goals, is also a means to generate larger personal and social wealth. Thus in the present global context, the significance of higher education has increased manifold, and as is seen, new developments on several aspects in the economy are revolutionizing the higher education sector and the world to-day is experiencing an unprecedented change. In spite of wide recognition by planners and policy makers that higher education is a means of strengthening the human resource base of an economy, along with much importance on higher education by the modern societies, it is unfortunate that in a large number of economies a low level of educational achievement acts as a drag in their efforts in fostering economic development due to under investment in education in such economies.

Higher education to-day faces the twin pressures of financial austerity and rising demand. Confronted with declining public budgets for higher education on the one hand, and the need for more resources on the other, higher education providers have been in search of alternative methods of generating additional resources to support higher education. As presently most governments in the world are facing very stringent public finance, and try to decrease the public subsidies to universities, cost-sharing is seen as a worldwide phenomenon. In this changing condition, the burden of the cost of higher education is shifted from exclusive or near exclusive dependence on the government or tax payers to some reliance on parents and/or students. However, when the tuition fees are rising, this causes a serious crisis for higher educational opportunities, especially for disadvantaged group, such as low income and backward families.

The higher education system and the pattern of financing higher education vary much across countries in terms of their size, strength and degree of diversification of higher education institutions. In a developing country like Cambodia its turbulent past has included many dramatic transitions. Several of these transitions have implications for education, including its financing. Since the early 1990s, Cambodia has been receiving considerable resources from international aid. These external resources have been especially important to Cambodia because of the government's limited capacity to generate revenues. Again, within the limited government budget, moreover, the education sector has been allocated much less proportion. During the last one decade higher education in Cambodia has witnessed phenomenal expansion and the increasing attention given to the development of higher education in the country both by government and private sector has brought spectacular changes in terms of size, enrolment and expenditure. In 1999-2000, the total number of higher education institutions (universities and institutes) both public and private along with their branches was 13 which has increased to 103 in 2008-09, i.e., 692 per cent increase over a period of ten years. Further, among the total number of higher institutions, while 70 per cent belonged to the private sector, the rest 30 per cent were public institutions. Moreover, in the whole country, in 2008-09, a total number of 137,253 students were

enrolled in higher education, which was only 23,192 in 1999-2000 (MoEYS, 2010). Thus, after decades of internal war and destruction, finally peace, political stability and economic development of the country have restored significant amount of confidence among the people to pursue higher education. However, during the past one decade the expansion of institutions of higher education and the fast increasing enrolment have resulted in the escalation of costs and expenditure. While in this country the social sector development is mostly supported by external agencies, government expenditure turns out to be increasingly insufficient to meet the growing demands for higher education. Hence, significant attention has been given to the private sector to meet the demand for the higher education in the country. As seen, the Royal Government of Cambodia finds it difficult to divert more of its revenue resources towards the development of higher education in the country and as a result, the costs of higher education mostly passed to the recipients of the benefits.

Against this backdrop, the present study attempts to analyze the growth of higher education in Cambodia over the period 1999-2000 to 2008-09 and also to examine the factors determining growth of higher education to enable in understanding the higher educational scenario of the country. Further, the study focuses on computing the private cost of higher education along with identifying the factors influencing the private cost of higher education in the country. Thus the study intends to generate adequate interest among policy makers of higher education in the country for ensuring an effective cost sharing measures among different stakeholders of higher education.

2. Conceptual and Empirical Literature

Cost of education refers to the minimum amount of expenditure or outlay needed to produce students with a projected level of achievement, which is considered as adequate (Rao et al., 2008). This means the least amount of money that needs to be spent to achieve the desired level of outcome (Andrews et al., 2002). Thus in the macro sense, cost of education can be understood as the total value of resources deployed by households, government and private entities in acquiring education.

Cost of education is defined as the amount incurred by the parents/students and the public/government for education. It consists of private cost and institutional cost. Private cost (consumer's cost) is referred as that part of investment in education which is made either by the students or parents or both in acquiring education. Institutional cost shows the expenditure incurred by the government or institution (provider of education) for providing the provision of education. Institutional costs are classified as recurring and non-recurring costs or variable and fixed costs or current and capital costs. Institutional cost, commonly known as producers' accounting cost, which refers to all those costs needed to create educational delivery facilities. The recurring cost is the cost which an institution/ government spends annually to keep a course of higher education going. It is the cost incurred every year and has direct relationship with the inputs or outputs of the system, namely the students. On the other hand, non-recurring cost may be defined as the cost incurred almost once for all (unless the scale of operation changes) which does not change along with changes in the input or output of the system. However, one cannot rigidly distinguish between recurring and non-recurring costs. For example, if the number of students rises by a reasonably large number, both the number of teachers and of class rooms has to be raised. The measurement of non-recurring cost is difficult as it involves plethora of conceptual and empirical controversies (Brar et al., 2008). The opinion is divided over the charging of capital costs directly from the students. It is viewed that charging of

capital costs from the students would tantamount to ruthless privatization/ commercialization of higher education. However, one cannot rigidly distinguish between recurring and non-recurring costs. The private cost which is a part investment in education made either by the students or parents or both for the purpose of acquiring education is divided into direct cost and indirect cost (earnings forgone). While the direct private cost is defined as the value of money directly incurred by the student or parent or both for acquiring that level of education; and the indirect private cost (opportunity cost) refers to the earnings forgone by the student while receiving education. Kothari and Panchamukhi (1980) mentioned that the valuation of opportunity cost of education has to be done in terms of the foregone earnings. Direct private cost is sub-divided into two groups - academic and incidental. Academic cost is defined as the expenditure which is directly related to instruction, whereas the costs which are not directly related to instruction are known as incidental costs. The major components of academic costs are fees paid for application forms and prospectus, admission fees, tuition fees, books and study materials, stationery, examination fees, project/thesis work, study tours and other instructional costs. Incidental costs consist of hostel/housing expenses, clothing, travel costs, entertainment, food, any type of subscriptions and others. The entire cost of hostel/housing is not included in the private cost because the normal expenses of living would have been incurred irrespective of taking education. Thus the direct private cost indicates the amount of physical resources spent while receiving education. The net private costs are obtained by deducting transfer payments from total private expenditure. From the private costs estimated per annum, the total private costs for a given level of education may be obtained by multiplying it by the number of years of a given programme.

The sum total of private and public costs, net transfers (fees, scholarships, etc.), constitutes the total social costs of education. Chalam (1986) pointed out that social cost or total resource cost is measure of what it costs to the society for educating student. Knowledge of the social cost by its components (institutional and private) at the same time is necessary because "while institutional investments can provide the educational facilities, only individual efforts and investment will make it possible to take advantage of them. The two are so inter-related and inter-dependent that, in the absence of one of them, there is likely to be under-allocation of resources for education in these economies" (Tilak, 1985).

In the overall context of growing budget constraints in education, and growing evidence in favour of priority for lower levels of education as against higher education, several studies (e.g., World Bank, 1986) argued strongly for reducing public subsidies for higher education. However, at the same time the need for more financial resources for higher education is well recognized, as the costs of higher education are rising steadily, and more resources are needed, both for quantitative expansion and qualitative improvement of higher education.

Johnstone (1986) started from the premise that regardless of the size or characteristics of the higher education system, and regardless of a country's wealth or politics, all costs of higher education are borne by a combination of four sources of finance: (i) tax payers, (ii) parents, (iii) students, and (iv) institutions/ philanthropists and that "any cost shifted from one source must per force be shifted to another".

According to Barr (1993) higher education meets many of the conditions of a private good characteristic amenable to the forces of the market. First, higher education cannot be treated as a purely public good. That is because it exhibits conditions of rivalness (limited supply), excludability (often

available for a price), and, rejection (not demanded by all) – all of which do not meet the characteristics of a purely public good, but reflect at least some important conditions of a private good. Second, the consumers of higher education are reasonably well informed and the providers are often ill informed – conditions which are ideal for market forces to operate. This market orientation has led to elements, such as tuition, which shifts some of the higher education cost burden from taxpayers to parents and students, who are the ultimate beneficiaries of higher education.

As pointed out by Johnstone et al. (1998) to many economists, shifting some of the cost burden from taxpayers to students and parents also reflects a reform in the direction of greater equity and more reasonable alignment of those who pay with those who benefit. To them, with taxes increasingly avoidable and otherwise difficult to collect, and with competing public needs, such as basic education, public health, public safety, transfer payments, and public infrastructure so compelling in all countries, an increasing reliance on tuition, fees, and the unleashed entrepreneurship of the faculty may be mainly the only alternatives to a totally debilitating austerity.

Tilak and Varghese (1991) analyzed the pattern of funding higher education in India and discussed the desirability and feasibility of various alternative methods of funding the same. To them, as higher education benefits not only society at large, but also individuals specifically, and as it attracts relatively more privileged sections of the society, there is a justification for shifting the financial burden to the individual domain from the social domain.

Tilak (2005) raised several arguments against public subsidization of higher education. The social rates of returns of higher education are found to be lower than private returns. It is argued that public subsidization of higher education subsidies mainly accrue to the rich, particularly in elite higher education systems in India. This is regressive and increases income inequalities by transferring resources from the poor to the rich. It is further contended that with public subsidization by the state, education institutions become vulnerable to government control; which is not desirable in higher education institutions. It is argued that since higher education has very low price elasticity, the cost recovery measures in higher education would not lead to any significant fall in enrolments. In fact, additional resources available for higher education would improve access; this would also lead to improvement in quality.

Sanyal and Martin (2006) discussed the four principal parties bearing the cost of higher education as below:

i. The government fund comes from the people who pay taxes visibly and directly, invisibly and indirectly and from their reduced purchasing power from deficit-driven inflation resulting from printing money.
ii. Parents or their substitutes bear some of the costs through the payment of tuition and bearing their living costs. They do so from their current income, past savings, or loans to be paid from their future earnings.
iii. Students can pay their educational costs through part-time paid work or loans. These loans can be paid back directly by the students after graduation in monthly installments or can be deducted at source by the employer, who then pays the lender. Repayments can also be income contingent, limited to a certain percentage of earnings and graduated over time. The monthly repayment burden depends on the discounted present value of the total anticipated payments and the number of years to repay.
iv. Individual or institutional donors (to be found mostly in the USA and UK) contribute

to the institutions of higher education to reduce their fiscal pressure or to financially needy students. Some of these donors create endowments that go on in perpetuity, with only the income earned spent for scholarships or other current needs of the institution. Some other donors also contribute on a recurrent basis. The institution itself may provide scholarships to needy students. Most of these donors are wealthy families or industrial and business concerns.

According to Agarwal (2006), in most parts of the world it is widely realized that there is a 'limited' scope for increased public spending on higher education; therefore, cost recovery is perhaps the only way forward. Though it may be desirable that higher education in its entirety is funded through tax revenues, with competing and politically more popular claim for public funds from other sectors of economy, this is hardly feasible.

ADB (2009) relating to cost sharing pointed out that it will not be a viable option in situations without a reasonably high private rate of return to higher education. To work, cost sharing requires that students have a real incentive to invest in higher education and sufficient additional income to repay loans.

3. Objectives

The main objectives of the study are as follows:

i. To analyze the growth of higher education in the Kingdom of Cambodia over the period 1999-2000 to 2008-09.
ii. To examine the factors determining growth of higher education in the country.
iii. To compute the private cost (academic and incidental) at different levels of general and technical higher education.
iv. To identify the factors influencing the private cost of higher education.

4. Methodology

Among 24 municipal areas/provinces in the country, the study decides to select Phnom Penh municipal area (capital city of the country) as the area of the study purposively. The reason for selecting Phnom Penh city is that, compared to other municipal areas or provinces in the country, it has a larger number of private and public universities (46 per cent of total universities/higher educational institutions in the country) which are relatively old and young (new).

Among the presence of 47 universities/higher institutions both public and private located in Phnom Penh in 2008-09, the study selects four universities purposively comprising of general, engineering and medical education. Further, as the private universities/higher institutions are not receiving any government grants or receiving government grants marginally, the study takes into account both private and public universities of one each under the general category and public universities/higher institutions of one each relating to health and engineering respectively to analyze the private costs of higher education by various types and levels of higher education in the country. From each selected university/higher education institution, 125 sample respondents (students) are selected on the basis of proportional stratified random sampling to collect information on private costs of education and other related aspects. The study covers the students of both under graduate and post graduate programs. Thus, a total number of 500 sample respondents are selected for the purpose of the study as per the table presented below.

To analyze the growth of higher education over the period 1999-2000 to 2008-09, secondary data are used. Several publications of National Institute of Statistics, Ministry of Planning along with both published and unpublished data from the Ministry of Education, Youth and Sports, Royal Government

Table 1: Description of Sample Design

Sl. No.	Name of the University/HEI	Year of Establishment	Ownership	No. of Students in 2009			No. of Sample Students		
				UG	PG	Total	UG	PG	Total
1.	Build Bright University (BBU)	2002	Private	10935	1130	12065	113	12	125
2.	Royal University of Law and Economics (RULE)	1948	Public	16540	1951	18491	112	13	125
3.	University of Health Sciences (UHS)	1997	Public	6279	-	6279	125	-	125
4.	Institute of Technology of Cambodia (ITC)	1981	Public	3026	6*	3032	125	-	125
Total				**36780**	**3087**	**39867**	**475**	**25**	**500**

Note: UG = Undergraduate Programme
PG = Post Graduate Programme
* Institute of Technology of Cambodia had only six PG students in 2009 and the study has excluded them in sample selection.
Source: Compiled data collected from selected Universities/HEIs.

of Cambodia as well as information from four selected universities/higher education institutions are taken into account. To compute the private cost of higher education (both academic and incidental) of different types and levels, primary data are collected from the selected respondents (students) of four universities/ higher education institutions with the help of a structured questionnaire and by adopting direct personal interview method. The questionnaire includes questions on several aspects relating to the theme of research, such as occupation of the head of the family, monthly income of the head of the family, number of earned as well as dependent members in the family, monthly income of the family, monthly income of the student in case employed/engaged, expenses on various components of academic and incidental costs for pursuing higher education, etc.

To examine the factors determining the growth of higher education (in terms of enrolment) in Cambodia, multiple regression analysis is carried out.

$$\log Y = \alpha + \beta 1 \log X1 + \beta 2 \log X2 + \beta 3 \log X3 + \beta 4 \log X4 + U$$

Where,

Y = Enrolment at higher education level;

X1 = Per capita GDP at constant prices;

X2 = Number of students passed out from high schools;

X3 = Number of higher educational institutions per one million population;

X4 = Number of higher educational institutions per 20,000 Sq. Km. of area; and

α = Intercept term.

$\beta 1$, $\beta 2$, $\beta 3$ and $\beta 4$ are the coefficients of log X1, log X2, log X3 and log X4 respectively.

U = Error term.

The internal sources of revenue of selected higher educational institutions are studied on the basis of

income receipts mainly under application form, tuition fee, examination fees, selling of study materials and others (sports fee, laboratory fee, library fee, consultancy income-research, training, project, etc., income from waste products, interest on deposits, selling of uniforms, etc.). The external sources of finance of the higher education institutions include any sort of support in terms of donations and grants from external agencies, such as government and non-government organizations. The average annual growth rate of each of the sources of revenue over the period 2005-2009 is calculated for analysis. The growth rate is calculated as per the model used to calculate the growth rates of different indicators of education in general and higher education in particular as mentioned at the beginning of this section.

Several components of private academic and incidental cost (average) of different levels of general and technical education are computed and their percentages to total are calculated. While computing the private cost, proper adjustment has been done and therefore, the direct private cost in this study refers to net direct private cost. Further, in the Cambodian context, most of the students at the higher education level (under-graduate and post graduate) pursue studies at their free time without sacrificing their daily earnings and few students at the under graduate level are willingly remain unemployed to pursue higher education. Therefore, the present study focuses on calculating the direct private cost of higher education and considers no merit in calculating the indirect private cost (foregone earnings) of higher education.

To determine the factors influencing private cost of higher education, the following regression model is used:

$$Cp = \alpha + \beta 1\ Y + \beta 2\ E + \beta 3\ D + U$$

Where,

Cp = Private cost of higher education;
Y = Annual income of the family;
E = Number of earning members in the family;
D = Number of dependents in the family; and
α = Intercept term.

$\beta 1$, $\beta 2$ and $\beta 3$ are the regression coefficient of Y, E and D respectively.

U = Error term.

4. Analysis of Results

4.1 Growth of Higher Education in Cambodia

To analyze the growth of higher education in the country at all levels and types over the period 1999-2000 to 2008-09, as per the availability of data, the indicators taken into account are number of University/Higher Education Institution (HEI), total enrollment, number of teachers and pupil teacher ratio.

Over the last one decade (1999-2000 to 2008-09), there has been a tremendous increase in the number of higher education providers in the country. Since the year 2000, many private higher education providers have entered into the market due to the privatization of higher education. The number of higher education institutions, which was only 13 in 1999-2000, increased to 103 in 2008-09 representing an average annual compound growth rate of 28.90 per cent as shown in Table 2.

A similar growth in total enrollment at higher education level has been observed during the same period, i.e., 1999-2000 to 2008-09 (Figure 1). Corresponding to the increase in number of institutions, enrollment at all levels and types of higher education had reached 137,253 in 2008-09 from 23,192 in 1999-2000, representing thereby an average annual compound growth rate of 21.98 per cent.

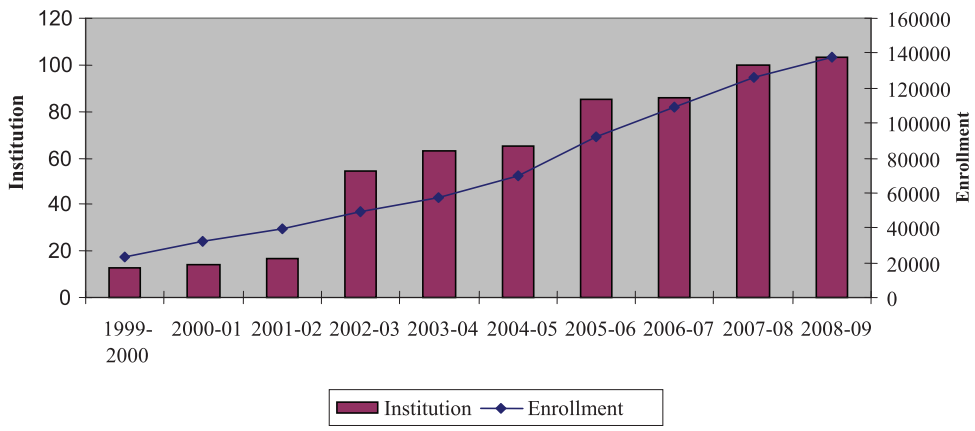
Table 2: Growth of Higher Education in Cambodia (1999-2000 to 2008-09)

Sl. No.	Year	Number of Universities/HEIs	Number of Enrollment	Number of Teachers	Pupil Teacher Ratio
1	1999-2000	13	23,192	2,574	9.01
2	2000-01	14	31,896	2,925	10.90
3	2001-02	17	38,938	3,251	11.98
4	2002-03	54	49,575	3,661	13.54
5	2003-04	63	57,024	4,121	13.84
6	2004-05	65	70,094	4,598	15.24
7	2005-06	85	91,941	5,231	17.58
8	2006-07	86	108,620	5,930	18.32
9	2007-08	100	125,645	6,140	20.46
10	2008-09	103	137,253	6,598	20.80
Average Annual Compound Growth Rate (Per cent)		**28.90**	**21.98**	**11.41**	**9.29**

Note: Data on higher education include all types and levels of higher education in the country.

Source: i. Ministry of Education, Youth and Sports, Royal Government of Cambodia.
ii. Own Computation.

Figure 1: Growth of Number of Institutions and Enrollment in Higher Education (1999-2000 to 2008-09)



Source: Ministry of Education, Youth and Sports, Royal Government of Cambodia, 2010.

Corresponding to the increase in number of higher education institutions along with the enrollment, there has been a continuous increase in the number of teachers in higher education institutions in the whole Kingdom. In 2008-09, the total number of teachers reached at 6,598, whereas it was only 2,574 in 1999-2000. Thus, the average annual compound growth rate of teachers at higher educational level was found to be 11.41 per cent over the study period. Further, as revealed over the period of study, the average annual compound growth rate of pupil teacher ratio reached 9.29 per cent. In certain years, such as 2002-03 and 2003-04 as well as 2007-08 and 2008-09, the ratio did

Table 3: Province-wise Universities/Higher Education Institutions in Cambodia (1999-2000 to 2008-09)

Sl. No.	Province	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
1	Banteay Meanchey	-	-	-	1 (1.85)	3 (4.76)	3 (4.62)	3 (3.53)	4 (4.65)	5 (5.00)	5 (4.85)
2	Battambang	1 (7.69)	2 (14.29)	1 (5.88)	3 (5.56)	3 (4.76)	4 (6.15)	7 (8.24)	7 (8.14)	10 (10.00)	10 (9.71)
3	Kampong Cham	-	-	1 (5.88)	4 (7.41)	4 (6.35)	4 (6.15)	6 (7.06)	6 (6.98)	6 (6.00)	6 (5.83)
4	Kampong Chhnang	-	-	-	-	-	-	-	-	3 (3.00)	3 (2.91)
5	Kampong Speu	-	-	-	-	-	1 (1.54)	2 (2.35)	2 (2.33)	2 (2.00)	3 (2.91)
6	Kampong Thom	-	-	-	2 (3.70)	2 (3.17)	2 (3.08)	2 (2.35)	2 (2.33)	1 (1.00)	2 (1.94)
7	Kampot	-	-	-	2 (3.70)	2 (3.17)	2 (3.08)	2 (2.35)	2 (2.33)	2 (2.00)	2 (1.94)
8	Koh Kong	-	-	-	-	-	-	-	-	1 (1.00)	1 (0.97)
9	Kratie	-	-	-	-	-	-	-	-	1 (1.00)	1 (0.97)
10	Phnom Penh	11 (84.62)	11 (78.57)	12 (70.59)	32 (59.26)	38 (60.32)	37 (56.92)	45 (52.94)	45 (52.33)	47 (47.00)	47 (45.63)
11	Prey Veng	1 (7.69)	1 (7.14)	1 (5.88)	1 (1.85)	2 (3.17)	2 (3.08)	3 (3.53)	3 (3.49)	4 (4.00)	4 (3.88)
12	Pursat	-	-	-	1 (1.85)	1 (1.59)	1 (1.54)	3 (3.53)	3 (3.49)	3 (3.00)	3 (2.91)
13	Ratanak Kiri	-	-	-	1 (1.85)	1 (1.59)	1 (1.54)	1 (1.18)	1 (1.16)	1 (1.00)	1 (0.97)
14	Siemreap	-	-	1 (5.88)	4 (7.41)	4 (6.35)	5 (7.69)	5 (5.88)	5 (5.81)	5 (5.00)	5 (4.85)
15	Preah Sihanouk	-	-	1 (5.88)	3 (5.56)	3 (4.76)	3 (4.62)	3 (3.53)	3 (3.49)	3 (3.00)	3 (2.91)
16	Stung Treng	-	-	-	-	-	-	- -	-	-	1 (0.97)
17	Svay Rieng	-	-	-	-	-	-	1 (1.18)	1 (1.16)	3 (3.00)	3 (2.91)
18	Takeo	-	-	-	-	-	-	2 (2.35)	2 (2.33)	3 (3.00)	3 (2.91)
Whole Kingdom		**13 (100.00)**	**14 (100.00)**	**17 (100.00)**	**54 (100.00)**	**63 (100.00)**	**65 (100.00)**	**85 (100.00)**	**86 (100.00)**	**100 (100.00)**	**103 (100.00)**

Note: i. Some provinces, such as Kandal, Kep, Mondulkiri, Otdar Meanchey, Pailin and Preah Vihear do not have any University/HEI and therefore, are not mentioned in the list.
ii. The number of University/HEI includes all types and levels of higher education institutions.
iii. '-' represents non-existence of University/HEI in that particular year.
iv. Figures in the parentheses represent percentage to total of the given year.

Source: i. Ministry of Education, Youth and Sports, Royal Government of Cambodia.
ii. Own Computation.

not show any significant change. Thus the higher education in Cambodia has shown a tremendous growth in terms of number of institutions, total enrollment and number of teachers over the last one decade, i.e., from 1999-2000 to 2008-09.

The province-wise growth of universities/ higher education institutions over the period of study is shown in Table 3. As revealed, near about 50 per cent of the higher education institutions were located in the capital city of the country during the period 2005-06 to 2008-09. In many provinces in the country, only the existence of only one institution was seen over a period of several years. Next to Phnom Penh, Battambang province represented around 10 per cent of the total institutions followed by Banteay Meanchey and Siem Reap provinces each having around six per cent of total institutions. Thus, in many provinces in the country either negligible or no presence of higher education institutions was found.

The province-wise enrollment at higher education for all types and levels over the study period (1999-2000 to 2008-09) is presented in Table 4. Similar to the number of institutions, highest percentage of enrollment was reported in Phnom Penh over all the years under the study. In the capital city it is quite natural to see the highest percentage of enrollment to total enrollment in the country due to highest concentration of institutions. Thus as revealed, around 85 per cent of the total enrollment in 2008-09 were seen in Phnom Penh. Next to Phnom Penh, in 2008-09, around six per cent enrollment to total was found in Siem Reap province followed by around five per cent in Battambang province. In several provinces, the percentage of enrollment to total enrollment of the country was found to be less than one per cent. Thus while Phnom Penh had attracted the highest number of enrollment over the study period, wide disparities was found among the provinces so far enrollment at higher educational level was concerned.

The province-wise growth of teachers in higher education of all types and levels over the period 1999-2000 to 2008-09 is presented in Table 5. The number of teachers in higher education on year to year basis had increased which reached to 6,598 in 2008-09 as compared to 2,574 in 1999-2000. Further, compared to the previous year, i.e., 2007-08, there had been an increase of 7.5 per cent in number of teachers in total in 2008-09. In all the years under study, the number of teachers in Phnom Penh to total number of teachers in the country was more than 70 per cent. In both the years, i.e., 2007-08 and 2008-09, next to Phnom Penh, Banteay Meanchey province represented the second highest percentage of teachers to total followed by Siem Reap province. Several provinces, such as Kampong Chhnang, Kampong Thom, Koh Kong, Ratanakiri and Svay Rieng had less than one per cent of teachers to total in 2008-09. Thus as revealed wide variations in the number of teachers among the provinces over the period of study led to inter-province variations in the growth of higher education in the country.

There had been a continuous increase in the pupil teacher ratio in higher education in the whole country over the period of study (Table 6) which finally reached to 20.80 in the year 2008-09 from 9.01 in 1999-2000. In case of Phnom Penh, the ratio, which was 8.93 in 1999-2000, had increased to 22.85 in 2008-09. However, between the years 2007-08 and 2008-09, in case of Phnom Penh the ratios did not show any significant difference. Thus wide differences have been observed in pupil teacher ratio at higher education among the provinces in the country.

4.2 Factors determining Growth of Higher Education in Cambodia

In order to understand the factors determining the growth of higher education in Cambodia (in terms

Table 4: Province-wise Growth of Enrollment in Higher Education (1999-2000 to 2008-09)

Sl. No.	Province	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
1	Banteay Meanchey	-	-	-	-	119 (0.21)	672 (0.96)	1387 (1.51)	1465 (1.35)	2124 (1.69)	3262 (2.38)
2	Battambang	-	604 (1.89)	376 (0.97)	1068 (2.15)	1803 (3.16)	2900 (4.14)	3628 (3.95)	4878 (4.49)	5722 (4.55)	7426 (5.41)
3	Kampong Cham	-	-	390 (1.00)	645 (1.30)	1056 (1.85)	954 (1.36)	2147 (2.34)	2309 (2.13)	2878 (2.29)	3292 (2.40)
4	Kampong Chhnang	-	-	-	-	-	-	-	-	102 (0.08)	157 (0.11)
5	Kampong Speu	-	-	-	-	-	479 (0.68)	586 (0.64)	274 (0.25)	491 (0.39)	656 (0.48)
6	Kampong Thom	-	-	-	123 (0.25)	134 (0.23)	206 (0.29)	299 (0.33)	366 (0.34)	499 (0.40)	870 (0.63)
7	Kampot	-	-	-	520 (1.05)	499 (0.88)	591 (0.84)	553 (0.60)	740 (0.68)	265 (0.21)	602 (0.44)
8	Koh Kong	-	-	-	-	-	-	-	-	154 (0.12)	213 (0.16)
9	Kratie	-	-	-	-	-	-	-	-	141 (0.11)	201 (0.15)
10	Phnom Penh	22718 (97.96)	30755 (96.42)	37081 (95.23)	44078 (88.91)	49325 (86.50)	58584 (83.58)	74927 (81.49)	87371 (80.44)	99131 (78.90)	116854 (85.14)
11	Prey Veng	474 (2.04)	537 (1.68)	761 (1.95)	1055 (2.13)	1235 (2.17)	1675 (2.39)	1417 (1.54)	1670 (1.54)	2080 (1.66)	2157 (1.57)
12	Pursat	-	-	-	286 (0.58)	390 (0.68)	358 (0.51)	726 (0.79)	540 (0.50)	924 (0.74)	1417 (1.03)
13	Ratanak Kiri	-	-	-	46 (0.09)	63 (0.11)	117 (0.17)	290 (0.32)	233 (0.21)	302 (0.24)	277 (0.20)
14	Siemreap	-	-	88 (0.23)	1192 (2.40)	1714 (3.01)	2399 (3.42)	3001 (3.26)	4620 (4.25)	5793 (4.61)	7686 (5.60)
15	Preah Sihanouk	-	-	242 (0.62)	562 (1.13)	686 (1.20)	1159 (1.65)	959 (1.04)	1386 (1.28)	1971 (1.57)	2275 (1.66)
16	Svay Rieng	-	-	-	-	-	-	1012 (1.10)	1376 (1.27)	1910 (1.52)	2201 (1.60)
17	Takeo	-	-	-	-	-	-	1009 (1.10)	1392 (1.28)	1158 (0.92)	4386 (3.20)
Whole Kingdom		**23192 (100.00)**	**31896 (100.00)**	**38938 (100.00)**	**49575 (100.00)**	**57024 (100.00)**	**70094 (100.00)**	**91941 (100.00)**	**108620 (100.00)**	**125645 (100.00)**	**137253 (100.00)**

Note: i. Province-wise enrollment in higher education represents total enrollment of different types and levels of enrollment in higher education.

ii. Figures in the parentheses represent percentage to total of the given year.

Source: i. Ministry of Education, Youth and Sports, Royal Government of Cambodia.

ii. Own Computation.

Table 5: Province-wise Growth of Teachers in Higher Education (1999-2000 to 2008-09)

Sl. No.	Province	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
1	Banteay Meanchey	-	-	-	-	27 (0.66)	63 (1.37)	74 (1.41)	90 (1.52)	154 (2.51)	220 (3.33)
2	Battambang	-	61 (2.09)	67 (2.06)	86 (2.35)	118 (2.86)	182 (3.96)	225 (4.30)	220 (3.71)	353 (5.75)	523 (7.93)
3	Kampong Cham	-	-	79 (2.43)	113 (3.09)	208 (5.05)	212 (4.61)	273 (5.22)	267 (4.50)	198 (3.22)	358 (5.43)
4	Kampong Chhnang	-	-	-	-	-	-	-	-	21 (0.34)	45 (0.68)
5	Kampong Speu	-	-	-	-	-	40 (0.87)	86 (1.64)	90 (1.52)	51 (0.83)	
6	Kampong Thom	-	-	-	-	16 (0.39)	26 (0.57)	28 (0.54)	12 (0.20)	41 (0.67)	62 (0.94)
7	Kampot	-	-	-	-	38 (0.92)	54 (1.17)	53 (1.01)	37 (0.62)	59 (0.96)	111 (1.68)
8	Koh Kong	-	-	-	-	-	-	-	-	26 (0.42)	32 (0.48)
9	Kratie	-	-	-	-	-	-	-	-	16 (0.26)	67 (1.02)
10	Phnom Penh	2545 (98.87)	2831 (96.79)	3016 (92.77)	3259 (89.02)	3468 (84.15)	3693 (80.32)	3931 (75.15)	4561 (76.91)	4375 (71.25)	5114 (77.51)
11	Prey Veng	29 (1.13)	33 (1.13)	35 (1.08)	48 (1.31)	56 (1.36)	79 (1.72)	123 (2.35)	107 (1.80)	112 (1.82)	136 (2.06)
12	Pursat	-	-	-	26 (0.71)	30 (0.73)	31 (0.67)	72 (1.38)	53 (0.89)	115 (1.87)	232 (3.52)
13	Ratanak Kiri	-	-	-	8 (0.22)	8 (0.19)	9 (0.20)	11 (0.21)	18 (0.30)	14 (0.23)	18 (0.27)
14	Siemreap	-	-	25 (0.77)	69 (1.88)	88 (2.14)	131 (2.85)	155 (2.96)	227 (3.83)	240 (3.91)	363 (5.50)
15	Preah Sihanouk	-	-	29 (0.89)	52 (1.42)	64 (1.55)	78 (1.70)	81 (1.55)	104 (1.75)	125 (2.04)	215 (3.26)
16	Svay Rieng	-	-	-	-	-	-	21 (0.40)	34 (0.57)	79 (1.29)	47 (0.71)
17	Takeo	-	-	-	-	-	-	98 (1.87)	110 (1.85)	161 (2.62)	201 (3.05)
Whole Kingdom		**2574 (100.00)**	**2925 (100.00)**	**3251 (100.00)**	**3661 (100.00)**	**4121 (100.00)**	**4598 (100.00)**	**5231 (100.00)**	**5930 (100.00)**	**6140 (100.00)**	**6598 (100.00)**

Note: i. Province-wise teachers in higher education include teachers in all types and levels of higher education.
ii. Figures in the parentheses represent percentage to total of the given year.
iii. Data on number of teachers in Kampong Speu province was not available in 2008-09.

Source: i. Ministry of Education, Youth and Sports, Royal Government of Cambodia.
ii. Own Computation.

Table 6: Province-wise Growth of Pupil Teacher Ratio in Higher Education (1999-2000 to 2008-09)

Sl. No.	Province	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
1	Banteay Meanchey	-	-	-	-	4.41	10.67	18.74	16.28	13.79	14.83
2	Battambang	-	9.90	5.61	12.42	15.28	15.93	16.12	22.17	16.21	14.20
3	Kampong Cham	-	-	4.94	5.71	5.08	4.50	7.86	8.65	14.54	9.20
4	Kampong Chhnang	-	-	-	-	-	-	-	-	4.86	3.49
5	Kampong Speu	-	-	-	-	-	11.98	6.81	3.04	9.63	-
6	Kampong Thom	-	-	-	-	8.38	7.92	10.68	30.50	12.17	14.03
7	Kampot	-	-	-	-	13.13	10.94	10.43	20.00	4.49	5.42
8	Koh Kong	-	-	-	-	-	-	-	-	5.92	6.66
9	Kratie	-	-	-	-	-	-	-	-	8.81	3.00
10	Phnom Penh	8.93	10.86	12.29	13.53	14.22	15.86	19.06	19.16	22.66	22.85
11	Prey Veng	16.34	16.27	21.74	21.98	22.05	21.20	11.52	15.61	18.57	15.86
12	Pursat	-	-	-	11.00	13.00	11.55	10.08	10.19	8.03	6.11
13	Ratanak Kiri	-	-	-	5.75	7.88	13.00	26.36	12.94	21.57	15.39
14	Siem Reap	-	-	3.52	17.28	19.48	18.31	19.36	20.35	24.14	21.17
15	Preah Sihanouk	-	-	8.34	10.81	10.72	14.86	11.84	13.33	15.77	10.58
16	Svay Rieng	-	-	-	-	-	-	48.19	40.47	24.18	46.83
17	Takeo	-	-	-	-	-	-	10.30	12.65	7.19	21.82
Whole Kingdom		**9.01**	**10.90**	**11.98**	**13.54**	**13.84**	**15.24**	**17.58**	**18.32**	**20.46**	**20.80**

Note: Province-wise pupil teacher ratio in higher education includes all types and levels of higher education.
Source: i. Ministry of Education, Youth and Sports, Royal Government of Cambodia.
ii. Own Computation.

of enrollment), multiple regression model has been used and accordingly the regression results is shown in Table 7.

Table 7: Regression Results

Regression Coefficients/ Constant	Values of the regression coefficients/ constant	't' value	Level of Significance	R^2	$\overline{R}^2$	F	Significance of F
α	-2.3668	-0.8993	0.4097	0.9948	0.9906	237.4225	6.92E-06
β_1	2.3559	1.8720	0.1201				
β_2	0.2842	2.3151	0.0685				
β_3	2.1898	0.4198	0.6920				
β_4	-2.0252	-0.3889	0.7134				

Note: Dependent variable: Enrollment at higher education level (Y)

α = Constant

β_1 = Regression coefficient of log X_1, where X_1 is per capita GDP at constant prices (Base year = 2000).

β_2 = Regression coefficient of log X_2, where X_2 is number of students passed out from high schools.

β_3 = Regression coefficient of log X_3, where X_3 is number of higher educational institutions per one million population.

β_4 = Regression coefficient of log X_4, where X_4 is number of higher educational institutions per 20,000 sq. kms. of area.

Source: Own Computation.

It is revealed from the regression results that among the selected four independent variables, only one variable, i.e., number of students passed out from high schools had significant positive impact (significance level 6.85 per cent) on the enrollment of students at higher education level in the country over the period of study. Further, the result reveals that the independent variable – number of higher educational institutions per 20,000 Sq. Km. had a negative impact on the enrollment of students at higher education level. The impacts of the other two variables, i.e., per capita GDP at constant prices and number of higher educational institutions per one million people were found to be not significant though their relationships with the enrollment at higher education level were positive. However, the regression as a whole is significant which is revealed from the 'F' value (F=237.4225, P=6.92E-06).

4.3 Computation of Private Cost in Higher Education

The private cost of higher education includes both academic and incidental expenses. The private academic cost borne by the sample respondents (students) of the four selected universities/higher education institutions of the study mainly comprised of seven components, such as application form, tuition fee, books and study materials, stationery, project/thesis work, study tour and examination fee. The higher education provided by the four universities/ higher education institutions under study is classified as general education and technical education. Under general education, the education provided by Build Bright University and Royal University of Law and Economics has been taken into account for the analysis purpose, whereas, the education services of University of Health Sciences and Institute of Technology of Cambodia are considered as technical education. Further, the levels of education

of the four selected higher education institutions are classified into two types, i.e., undergraduate programs and post graduate programs. The two higher education institutions, Build Bright University and Royal University of Law and Economics, providing general education had both undergraduate and post graduate programs. But the other two selected higher education institutions, i.e., University of Health Sciences and Institute of Technology of Cambodia offered technical education at undergraduate level during the time of study.

In the year under study, i.e., 2009, the annual average private academic cost of the sample students of both general and technical education was computed as USD 756.63 with USD 516.82 for general education and USD 996.44 for technical education. Out of the total average private academic cost of the higher education (both general and technical education), 79.89 per cent was for tuition fee followed by 8.39 per cent for books and study materials, 4.54 per cent for stationery, 4.36 per cent for project/thesis work, 1.99 per cent for study tour, 0.79 per cent for application form and 0.04 per cent for examination fee. In case of general education, the percentages of average private academic costs of tuition fee, books and study materials, project/thesis work, stationery and study tour to total average private academic cost were 76.67, 10.71, 5.48, 4.09 and 2.81 respectively. On the other hand, the average private academic costs of tuition fee, books and study materials, stationery, project/thesis work, study tour and application form to total average private academic cost in technical education were 81.56 per cent, 7.19 per cent, 4.77 per cent, 3.78 per cent, 1.57 per cent and 1.10 per cent respectively. Thus, both in general education and technical education, the percentage of the average private academic cost of tuition fee to total average private academic cost was highest in the year under study. In general education, on an average, a student spent USD 396.24 on tuition fees as against USD 812.70 in case of technical education, which was higher by USD 416.46 or 4.89 percentage points compared to general education. After tuition fee, the next important private academic cost was books and study materials, and the average private academic cost of this component was USD 55.35 in general education and USD 71.67 in technical education (Table 8). The higher percentage of tuition fee to total average academic cost irrespective of types, levels and ownership of institutions revealed that in general, the direct beneficiaries (students) of higher education mostly borne the cost of tuition and hardly availed educational loans in pursuing their higher education. Except scholarships, partly or fully, offered by the universities/ higher education institutions either directly or through government machinery; and sponsorship of employers to their employees to pursue higher education by the selected organizations, in general, the private academic cost including the tuition fee was borne by the students themselves. Several student support systems, like educational loans, income-contingent schemes, vouchers and others were virtually remain absent in this country. As a result, the academic cost was mostly borne by the students as the beneficiaries of the higher education. The percentages of average private academic cost of different components to total average private academic cost in general education, technical education and higher education in total are shown in Figure 2, Figure 3 and Figure 4 respectively.

The annual average private academic cost of the sample students of general education at undergraduate level was found to be USD 414.85 in 2009 as against USD 958.25 at post graduate level of general education. This indicates that the total average private academic cost of the students of post graduate programs was higher by USD 543.40 compared to that of undergraduate programs. Out of the total average private

Table 8: Average Private Academic Cost by Types of Education in 2009

(in USD)

Sl. No.	Components	General Education	Technical Education	Higher Education (General + Technical)
1	Application Form*	0.94 (0.18)	11.00 (1.10)	5.97 (0.79)
2	Tuition Fee	396.24 (76.67)	812.70 (81.56)	604.47 (79.89)
3	Books and Study Materials	55.35 (10.71)	71.67 (7.19)	63.51 (8.39)
4	Stationery	21.15 (4.09)	47.50 (4.77)	34.33 (4.54)
5	Project/thesis Work	28.34 (5.48)	37.62 (3.78)	32.98 (4.36)
6	Study Tour	14.50 (2.81)	15.60 (1.57)	15.05 (1.99)
7	Examination Fee	0.30 (0.06)	0.35 (0.04)	0.32 (0.04)
Total		**516.82 (100.00)**	**996.44 (100.00)**	**756.63 (100.00)**

Note: 1. * = In technical education, especially for Health Sciences, the students are required to appear for an entrance examination for admission and the fee paid for this purpose is included in the fee for application form for the purpose of calculation.

2. Figures in the parentheses indicate percentage to the corresponding total average private academic cost.

Source: Own Survey.

Figure 2: Percentage of Average Private Academic Cost of different Components to Total Average Private Academic Cost in General Education

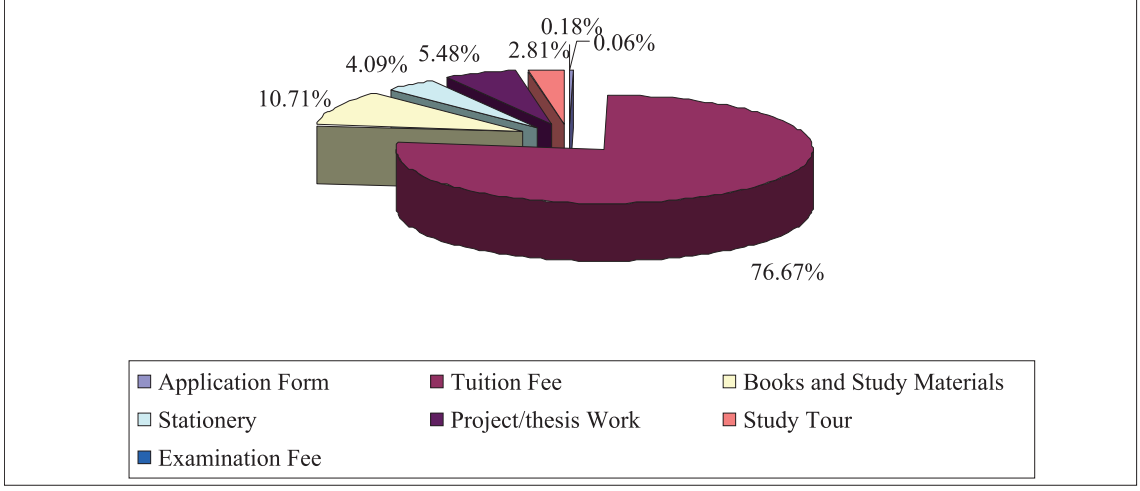


Figure 3: Percentage of Average Private Academic Cost of different Components to Total Average Private Academic Cost in Technical Education

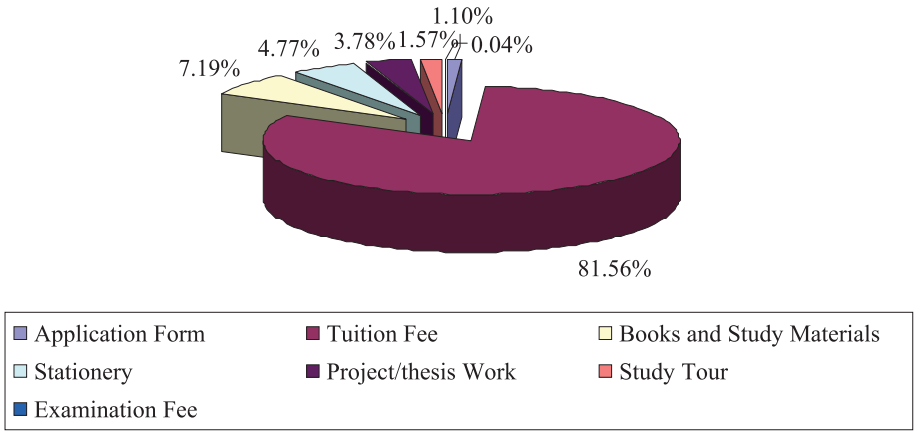
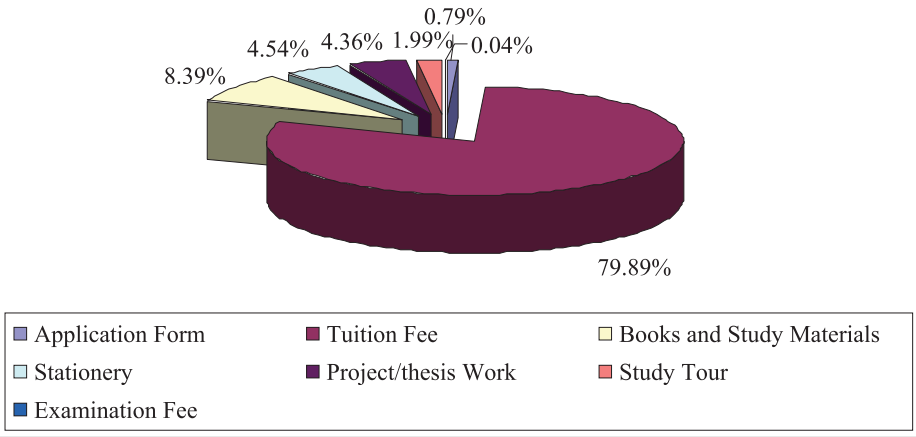


Figure 4: Percentage of Average Private Academic Cost of different Components to Total Average Private Academic Cost in Higher Education



academic cost of undergraduate programs, 84.27 per cent was spent on tuition fee, whereas, it was 85.16 per cent in case of post graduate programs. The average tuition fees paid by the sample students of undergraduate and post graduate programs in general education were USD 349.60 and USD 816.00 respectively. Next to the tuition fee, the percentages of average private academic costs of books and study materials, stationery, study tour, and project/thesis work to total average private academic cost of the sample students in undergraduate programs in 2009 were 6.67, 3.45, 3.07 and 2.29 respectively. In post graduate programs, the percentage of average private cost of books and study materials to total average private academic cost was 6.44 followed by 4.13 per cent in case of project/thesis work, 2.37 per cent in case of stationery and 1.70 per cent in case of study tour. For all the components, the average private academic costs of the sample students of post graduate programs were found to be much higher than that of undergraduate program in general

education in the year under study (Table 9). The percentage shares of average private academic cost of different components to total average private academic cost of undergraduate and post graduate programs are shown in Figure 5 and 6 respectively.

Table 9: Average Private Academic Cost by Levels of General Education in 2009

(in USD)

Sl. No.	Components	Undergraduate Programs	Post Graduate Programs	General Education
1	Application Form	0.87 (0.21)	1.48 (0.15)	0.94 (0.18)
2	Tuition Fee	349.60 (84.27)	816.00 (85.16)	396.24 (76.67)
3	Books and Study Materials	27.65 (6.67)	61.75 (6.44)	55.35 (10.71)
4	Stationery	14.30 (3.45)	22.70 (2.37)	21.15 (4.09)
5	Project/thesis Work	9.50 (2.29)	39.60 (4.13)	28.34 (5.48)
6	Study Tour	12.75 (3.07)	16.30 (1.70)	14.50 (2.81)
7	Examination Fee	0.18 (0.04)	0.42 (0.04)	0.30 (0.06)
Total		**414.85 (100.00)**	**958.25 (100.00)**	**516.82 (100.00)**

Note: Figures in the parentheses indicate percentage to the corresponding total average private academic cost.

Source: Own Survey.

Figure 5: Percentage of Average Private Academic Cost of different Components to Total Average Private Academic Cost in Undergraduate Programs of General Education

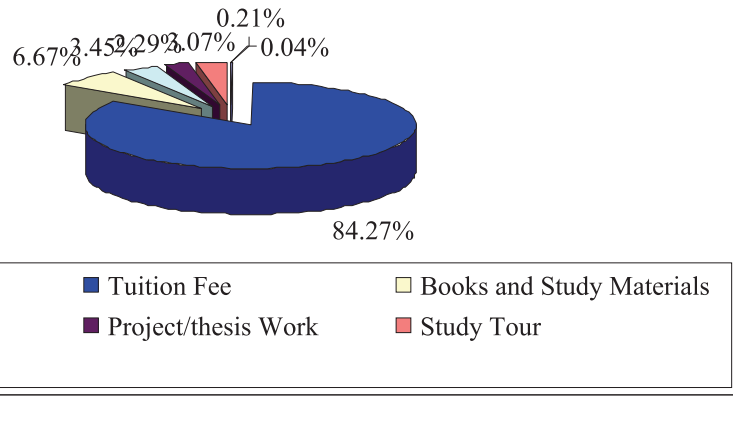
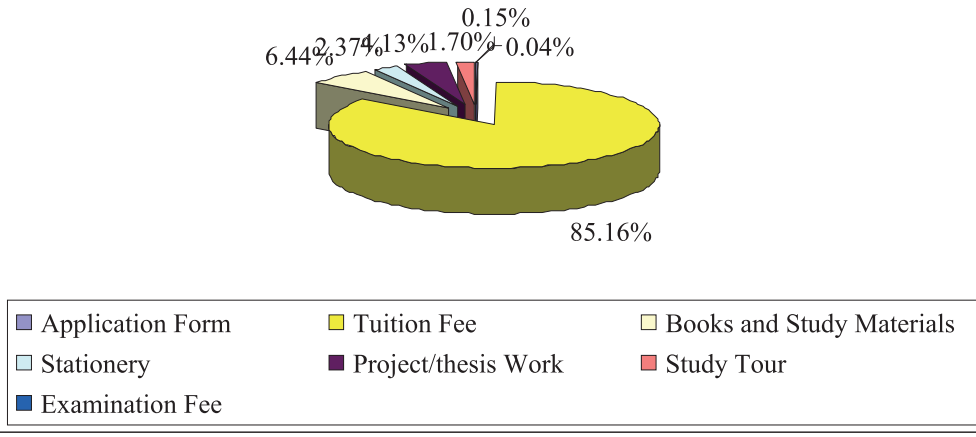


Figure 6: Percentage of Average Private Academic Cost of different Components to Total Average Private Academic Cost in Post Graduate Programs of General Education



The selected students in the four higher education institutions spent money on several components other than academic to pursue higher education, such as transportation, accommodation, food, clothing, entertainment and donations and subscriptions. The total average private incidental cost borne by the sample students of higher education, both general and technical, in 2009 was USD 377.90. For general and technical education, the total average private incidental costs of the sample students were USD 343.00 and USD 412.30 respectively. Among several components of incidental cost, the sample students were found to be spending more on transportation. The average private incidental costs of transportation of the students of general education, technical education and higher education (general + technical) were USD 180.00, USD 187.00 and USD 183.50 respectively in 2009. The percentage of average transportation cost to total average private incidental cost in general education was 52.48 as against 45.36 in case of technical education. On the whole, its percentage to the total average private incidental cost of higher education was 48.56. The percentages of average costs of accommodation, entertainment, food, clothing, and donations and subscriptions to total average private incidental cost in higher education were 17.86, 13.63, 11.64, 7.01 and 1.30 respectively. Similarly, in general education, the percentage of average cost of accommodation to total average private incidental cost was 13.99 followed by 12.68 per cent on entertainment, 11.66 per cent on food, 7.87 per cent on clothing and 1.31 per cent on donations and subscriptions. On the other hand, in technical education, out of the total average private incidental cost, the percentages of average costs on accommodation, entertainment, food, clothing, and donations and subscriptions were 21.10, 14.31, 11.64, 6.31 and 1.29 respectively. Except the average cost on clothing, on all other components, the average private incidental costs in technical education were more than that of general education (Table 10). In Figures 7, 8 and 9 the percentage shares of different components to total average private incidental costs of general education, technical education and higher education (both general and technical) are shown respectively.

Table 10: Average Private Incidental Cost by Types of Education in 2009

(in USD)

Sl. No.	Components	General Education	Technical Education	Higher Education (General+ Technical)
1	Transportation	180.00 (52.48)	187.00 (45.36)	183.50 (48.56)
2	Accommodation	48.00 (13.99)	87.00 (21.10)	67.50 (17.86)
3	Food	40.00 (11.66)	48.00 (11.64)	44.00 (11.64)
4	Clothing	27.00 (7.87)	26.00 (6.31)	26.50 (7.01)
5	Entertainment	43.50 (12.68)	59.00 (14.31)	51.50 (13.63)
6	Donations and Subscriptions	4.50 (1.31)	5.30 (1.29)	4.90 (1.30)
7	Interest for Educational Loan	-	-	-
Total		**343.00 (100.00)**	**412.30 (100.00)**	**377.90 (100.00)**

Note: Figures in the parentheses indicate percentage to the corresponding total average private incidental cost.

Source: Own Survey.

Figure 7: Percentage of Average Private Incidental Cost of different Components to Total Average Private Incidental Cost in General Education

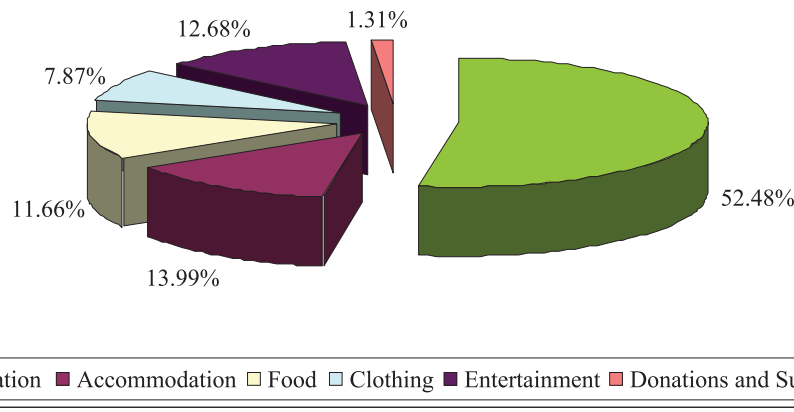


Figure 8: Percentage of Average Private Incidental Cost of different Components to Total Average Private Incidental Cost in Technical Education

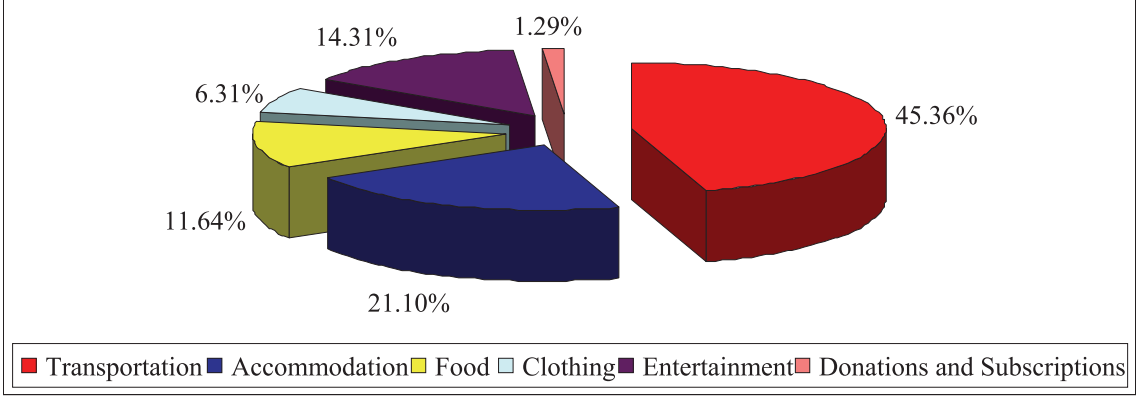
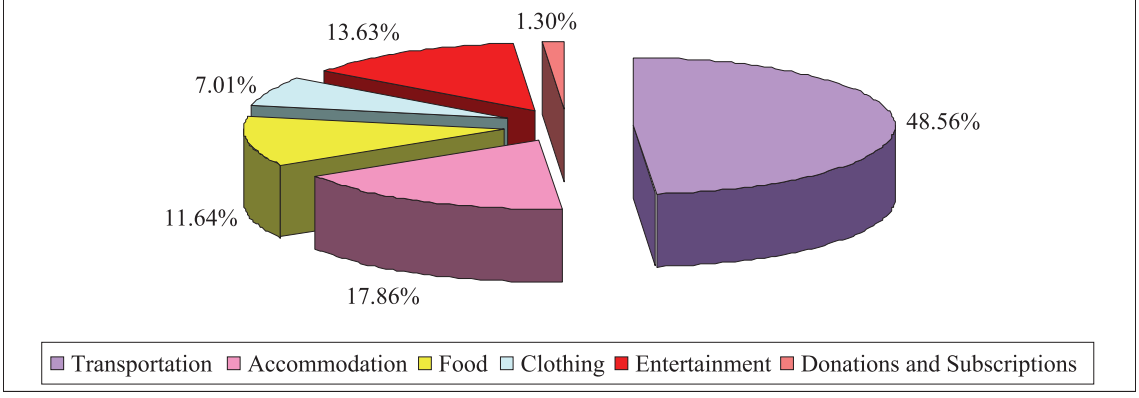


Figure 9: Percentage of Average Private Incidental Cost of different Components to Total Average Private Incidental Cost in Higher Education



With regard to private incidental cost of different levels of general education it is revealed that, in undergraduate programs, the total average private incidental cost of the students was USD 254.00, whereas, in case of post graduate programs it was USD 483.10. Out of the total average private incidental cost, the highest percentage was spent on transportation by the students of both undergraduate and post graduate programs. The percentage of average incidental cost of transportation to total average private incidental cost was 49.21 (USD 125.00) in undergraduate programs, whereas, it was 50.73 per cent (USD 245.10) in case of post graduate programs. The higher percentage of average transportation cost to total average incidental cost of all types and levels of education was due to the fact that most of the sample students surveyed traveled from different provinces where they carried out their jobs to undertake their education either in weekday or in weekend. Other than that, some students by using their own mode of transport made travel in the city to attend higher education institutions. Similarly, the percentages of average cost of accommodation,

food, entertainment, clothing and donations and subscriptions to total average private incidental cost in undergraduate programs of general education were 16.42, 15.16, 10.53, 7.60 and 1.09 respectively. But in post graduate programs, the percentage of average cost of accommodation to total average private incidental cost was 16.06 followed by 14.20 per cent in case of entertainment, 10.83 per cent in case of food, 6.62 per cent in case of clothing and 1.55 per cent in case of donations and subscriptions. The average private incidental costs of all the components in post graduate programs were much higher compared to undergraduate programs in general education in 2009 (Table 11). This is found to be the case as all most all students pursuing post graduate programs were employed and self-dependent, whereas some of the undergraduate students were voluntarily or otherwise remained unemployed and depended on their family income. The details of the percentage shares of average costs of different components to total average private incidental costs of undergraduate and post graduate programs of general education are shown in Figures 10 and 11 respectively.

Table 11: Average Private Incidental Cost by Levels of General Education in 2009

(in USD)

Sl. No.	Components	Undergraduate Programs	Post Graduate Programs	General Education
1	Transportation	125.00 (49.21)	245.10 (50.73)	180.00 (52.48)
2	Accommodation	41.70 (16.42)	77.60 (16.06)	48.00 (13.99)
3	Food	38.50 (15.16)	52.30 (10.83)	40.00 (11.66)
4	Clothing	19.30 (7.60)	32.00 (6.62)	27.00 (7.87)
5	Entertainment	26.75 (10.53)	68.60 (14.20)	43.50 (12.68)
6	Donations and Subscriptions	2.75 (1.09)	7.50 (1.55)	4.50 (1.31)
7	Interest for Educational Loan	-	-	-
Total		**254.00 (100.00)**	**483.10 (100.00)**	**343.00 (100.00)**

Note: Figures in the parentheses indicate percentage to the corresponding total.
Source: Own Survey.

Figure 10: Percentage of Average Private Incidental Cost of different Components to Total Average Private Incidental Cost of Undergraduate Programs of General Education

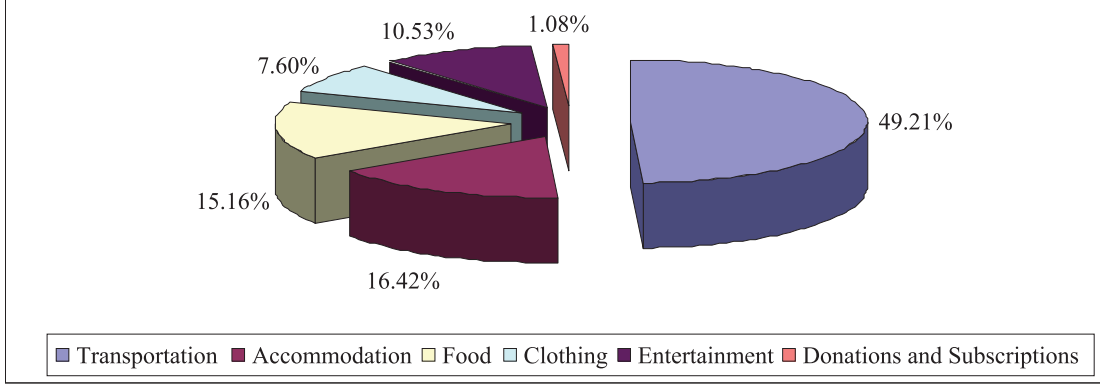
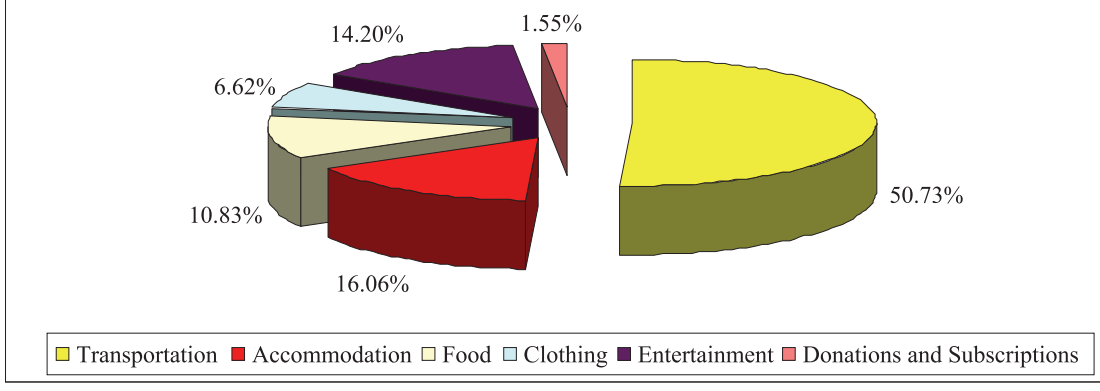


Figure 11: Percentage of Average Private Incidental Cost of different Components to Total Average Private Incidental Cost of Post Graduate Programs of General Education



4.4 Factors influencing Private Cost of Higher Education

In order to assess the factors influencing the direct private cost of higher education of the sample students of the four selected universities/higher education institutions, private cost, including private academic cost and private incidental cost, is taken as dependent variable, and annual income of the family of the student, number of earned members in the family and number of dependents in the family during the time of the survey are considered as independent variables in the multiple regression model. On the basis of the data collected from 500 sample students of four selected universities/higher education institutions, the following regression results are obtained as presented in Table 12.

The result shows that regression as a whole is significant, which can be revealed from 'F' value (70.2141) and its significance level (7.3715E-38). The two independent variables, i.e., annual income

Table 12: Regression Results

Dependent Variable Cp = Private Cost of Higher Education	R = 0.5460 R^2 = 0.2981	F = 70.2140 Sig. = 7.3715E-38
Independent Variables	**Regression Coefficients**	**'t' Value and Significance Level**
1. Y = Annual income of the family	0.0824	t = 12.2046, Sig. = 3.85284E-30
2. E = Number of earning members in the family	94.2059	t = 3.5517, Sig. = 0.00042
3. D = Number of dependents in the family	-41.9736	t = -1.8652, Sig. = 0.0627

Source: Own Computation.

of the family (Y) and number of earning members in the family (E) had positive impacts on the dependent variable - private cost of higher education (Cp) as the regression coefficients of Y and E are 0.0824 and 94.2059 respectively. The 't' values of these two regression coefficients indicate that the impacts of annual income of the family (Y) and number of earning members in the family (E) on the dependent variable - private cost of higher education (Cp) were significant at one per cent level of significance. The 't' value and its significance level of the regression coefficient of the independent variable - annual income of the family are 12.2046 and 3.85284E-30 respectively. Similarly, 3.5517 and 0.00042 are the respective 't' value and significance level of the regression coefficient of the independent variable - number of earning members in the family. The impact of the other independent variable, i.e., number of dependents in the family, on the dependent variable, i.e., private cost of higher education was found to be negative, which is revealed from the value of the regression coefficient, i.e., -41.9736. This is quite obvious, because, if the number of dependents in family increases then there is every possibility that the private cost of higher education of the family decreases. But the 't' value (-1.8652) and its significance level (0.0627) of the above regression coefficient shows that the effect of the independent variable, i.e., number of dependents in the family on the dependent variable, i.e., private cost of higher education was not significant. Thus, from the regression analysis it reveals that the annual income of the family and number of earning members in the family had significant impact on the dependent variable, i.e., private cost of higher education.

5. Concluding Remarks

The analysis carried out in the present paper reveals that over the period of study, tremendous growth in higher education had taken place in the country. Further, it is revealed that among the other factors, the number of students passed out from high schools had a significant positive impact on the enrollment at higher education level in the country. However, in the context of Cambodian economy, along with the constraints faced by government in allocating adequate resources to higher education sector, due to the privatization and commercialization of higher education, the burden of cost of higher education was mostly borne by the direct beneficiaries (students/ parents), and the cost was in the form of either tuition fees or 'user charges' to cover the living costs of students. However, some higher education institutions provided a few scholarships to the needy students either in full or part of tuition fees and some

students pursued higher education through sponsorship made by their employers. A very few students got support from other national and international donors to pursue their higher education.

In the context of Cambodian economy, higher education is mostly appropriated by the students belonging to the middle and upper income groups and those from forward sections of the society. Therefore, to promote low income groups to participate in higher education, a package of scholarship or other means of support system should be put into place. Thus, it is imperative that the Royal Government of Cambodia should design and implement equitable and effective systems of student support to help those who would otherwise be denied access to higher education on grounds of poverty and financial need.

References

Agarwal, P. (2006). *Higher Education in India – The Need for Change*. Working Paper No. 180, Indian Council for Research on International Economic Relations (ICRIER), June, New Delhi.

Andrews, M. et al. (2002). Revisting Economies of Size in American Education: Are we any closer to a Consensus? *Economics of Education Review*, 21, 245-262.

Asian Development Bank (2009). *Good Practice in Cost Sharing and Financing in Higher Education*. Manila.

Barr, N. (1993). *The Economics of the Welfare State*. Second Edition, Weidenfeld and Nicholsan, London.

Brar, J.S. et. al., (2008). Costs of Higher Education in Punjab – Levels, Patterns, and Efficiency Issues. *Journal of Educational Planning and Administration*, 22(2), 153-177.

Bray, M. (1999). *The Private Costs of Public Schooling: Household and Community Financing of Primary Education in Cambodia*. IIEP, Paris, UNESCO.

Bruce Johnstone, D. et al. (1998). *The Financing and Management of Higher Education: A Status Report on Worldwide Reforms*. Paper prepared as a contribution to the UNESCO World Conference on Higher Education, held in Paris, France on October 5-9, 1998.

Chalam, K.S. (1986). *Finances, Costs and Productivity of Higher Education*. Inter-India Publications, New Delhi.

Dash, T.R. (1993). *An Economic Analysis of the Problems of Education of the Tribals in a Backward District of a Developing State*. Unpublished Ph.D. Thesis, Utkal University, Bhubaneswar.

Dash, T.R. (1993). Regional Inequalities in Educational Development in Orissa. *Indian Journal of Regional Science*, 25(1), 19-29.

Johnstone, D.B. (1986). *Sharing the Cost of Higher Education: Student Financial Assistance in the United Kingdom, the Federal Republic of Germany, France, Sweden and the United States*. The College Board, New York.

Jongbloed, B. (2004). *Funding Higher Education: Options, Trade-offs and Dilemmas.* Paper for Fulbright Brainstorms - New Trends in Higher Education, CHEPS, The Netherlands: University of Twente.

Kothari, V.N. and Panchamukhi, P.R. (1980). *Economics of Education: A Trend Report.* in D.T. Lakdawala (eds.), A Survey of Research Economics, Vol. Six Infrastructure, New Delhi: (Allied), 169-238.

Ministry of Education, Youth and Sports, Royal Government of Cambodia (2010). *Education Statistics and Indicators (unpublished)*, Cambodia.

Psacharopoulos, G. (1988). *Education and Development – A Review*. The World Bank

Research Observer, 3(1), 99-116.

Psacharopoulos, G. and Woodhall, M. (1985). *Education for Development – An Analysis of Investment Choices*. Oxford University Press, New York.

Rao, Ramesh R. et al, (2008). Determining the Cost of Adequate Education: A Critical Review of the Approaches. *International Journal of Business and Management*, 3(8), 48-52.

Sanyal, B.C. and Martin, M. (2006). *Financing Higher Education: International Perspectives*. In GUNI Series on the Social Commitment of Universities 1, 2006, Higher Education in the World: The Financing of Universities, Palgrave Macmillan.

Tilak, J.B.G. (1985). *Analysis of Cost of Education in India*. Occasional Paper No. 10, National Institute of Educational Planning and Administration (NIEPA), New Delhi.

Tilak, J.B.G. (2005). *Higher Education in Trishanku*. Economic and Political Weekly, September, 4029-4037.

Tilak, J.B.G. and Varghese, N.V. (1991). *Financing Higher Education in India*. Higher Education, 21(1).

Todaro, M. (1995). *Economic Development*. Longman, England.

Viracheat, In and Dash, T.R. (2011). Growth of Higher Education and its Relationship with Per Capita Gross Domestic Product in Cambodia. *International Journal of Business and Social Science*, Vol. 2, No. 12, July, pp. 53-61, CPA, USA.

Viracheat, In and Dash, T.R. (2011). Private Cost of Higher Education in Cambodia – An Empirical Study. *International Journal of Development and Social Research*, Vol. II, Issue I, June, pp. 1-16.

World Bank (1986). *Financing Education in Developing Countries: An Exploration of Policy Options*. The World Bank, Washington D.C.

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Changing Perception of Indian Customers' towards Credit Cards - An MDS Analysis

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ABSTRACT

The world order is undergoing significant changes, and the winds of economic transformation are blowing across the globe. Indian financial services sector has changed dramatically during the last few years. Banking industry in India has undergone a sea change in terms of delivering value-added services to the rising consumerism in India; and customer today has an option to choose from products offered by many bankers depending on their needs. The transition of the banking industry from a public monopoly to a competitive environment now presents very interesting challenges both to the new players and to the customers. Thus in this context, priorities, preferences and brand positioning of credit card products have become essential for customers as well as banking companies. So Multi Dimensional Scaling Model has been used to identify the product attributes that are important to customers and to measure their relative importance. This model also tests which brand competes most directly with each other. The study concludes that the banking industry should design the product that should satisfy the personal needs with an ample degree of flexibilities to create more vibrant and competitive industry with greater efficiency, choice of products and value to customers.

Keywords: Credit Card, MDS, Perceptual Map

1. Introduction

There has been an exponential growth in the issuance and usage of credit cards among the people. Today the credit card segment is highly competitive with almost all the banks offering credit cards in association with international or master card. Every bank is trying to gain a market share with aggressive promotional activities and additional value-added services. Increasing competition for market share, and pressure on profitability are compelling banks to reduce costs, particularly transaction costs and improve efficiency. Today rising competition is forcing the banks to find innovative ways to reduce the cost of transactions and maintain profitability.To remain competitive in retail banking, banks are operating efficiently, packaging and delivering products on time, also leveraging the multiple channels of

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delivery, such as the internet and the ATMs professionally. With a view to grip the cost of operations, banks are building collaborative relationships with providers of related financial products and services and are working towards converting the network of bank branches into "financial supermarkets". Since public sector banks are becoming proactive towards growth in retail banking sector, Indian players are very speculative about development of retail banking industry. To be competitive, banks are using innovative technology and customizing their products as per the needs of customers. Credit risk along with market and operational risks are the real challenges for any bank. There are several risks involved in giving retail loans. They are mainly: deficiencies in lending policies, incorrect product structuring, inadequate loan documentation, deficiencies in credit appraisal, absence of post sanction surveillance and monitoring, inadequate risk pricing, inadequately defined lending limits and weak collection strategy. Beyond this, there are several critical success factors for banks, such as a wider distribution network, low-cost funding, low operation costs, marketing capability, large product portfolio, cross-selling, proper credit appraisal mechanism/risk assessment procedures, high service levels in terms of faster loan processing and disbursement, flexible technology across banking platforms, multi-distribution channels, strong brand presence and a good recovery mechanism. The contribution of these success factors depends upon how bank efficiently comprehend their customers, and how efficient banks are in meeting new sense of admittance, convenience and value. Further, banks are also facing another critical challenge to retain and establish customer intimacy because of shifting loyalties. The transition of the banking industry from a public monopoly to a competitive environment now presents very interesting challenges both to the new players and to the customers. Thus in this context, priorities, preferences and brand positioning of credit card products have become essential for customers and banking industries as well. In the financial world, products cannot be differentiated for long, because they are relatively easy to copy. So, operational excellence, understanding the customer and developing the rapport with them have become inevitable. Major challenge for banks in the new environment is to develop a good rapport with almost all sectors of the economy to market the cards.

2. Literature Review

Hirschman (1979) focused her research on the influence of method of payment on purchasing behaviour and found that cardholders are more likely to make bigger purchases than non-holders. This finding suggests that credit cards facilitate and induce purchases, as compared to cash. Kaynak and Ugur (1984) conducted a cross-cultural study of credit card usage behavior of Canadian and American cardholders. In the first stage of their research, cardholders' attitudes towards credit cards were evaluated. Both categories of cardholders agreed that credit cards are useful in a sense that cards are safer than cash and help making impulse buying payments. The finding was that both Americans and Canadians show similar pattern in attitudes toward ownership of credit cards, but their behavioral characteristics are different. Kanyak et al. (1995) conducted the study on credit card usage in Turkey and their findings suggest that respondents with lower and middle income and with high school and less education who use credit cards are likely to value the credit feature more than the service features, such as safety and convenience. Warwick and Mansfield (2000) studied the attitudes of college students towards the aggressive promotion of credit card industry. Findings of the study show that the majority of college students who own credit cards do not actively seek them out, but are aggressively pursued through the mail and on-campus by credit card issuers. With regard to students' knowledge of

their credit card, the majority of students did not report knowing the interest rate they were paying. Worthington and Gerrad (2007) study seeks to extend knowledge about credit cards by investigating two matters relating to consumers who are multiple cardholders. The study found that high income earners and higher educated respondents are making more use of their credit cards and value them in a more favorable manner and derive more satisfaction from their use. On the other hand, sex, age and employment are found to be insignificant factors in the levels of satisfaction with their credit cards. These disputes lead researchers to focus attention on the credit card industry. The empirical inconclusiveness of the credit card benefits thus gave birth to the motivation of carrying out the present research study. Further, no research has been conducted on credit card usage in Indian market. Therefore, the findings of the present study are expected to add a fuller dimension to the literature in this area.

3. Objectives

The objectives of the study are as follows:

i. To examine the key features and service attributes which are responsible for the perceptual change of Indian customers.
ii. To identify the product attributes that are important to customers, and to measure their relative importance.
iii. To study the innovative features of different brands of credit cards that are responsible for the change in perception of Indian customers.

4. Data and Methodology

The data for this study were collected during 2002-05 and 2006-2009 through convenience sample method from 400 mid-age couples from four states, namely Orissa, Andhra Pradesh, Maharashtra, and West Bengal. The cities from the above four states are chosen based on the proximity to the first city Bhubaneswar. In this study, questionnaire method is used to collect the data. Multi Dimensional Scaling technique is used to identify the product attributes that have importance to investors and to measure their relative importance. This technique tests the brands which compete most directly with each other. The perceptual map technique has also been used to identify the underlying dimensions that differentiate customer perception of products and the position of existing products on the dimensions. The following method has been used to find out the number of dimensions and configuration of that dimensionality.

The similarity matrix from response matrix has been found out by the following formula:

$$s_{ij} = \frac{r_{ij} \times r_{ji}}{N}$$

Where N is total sample size, i = row and j = column.

The distance between each brand is found out by using Euclidean distance formula:

$$d_{ij} = \left[\sum_{k=1}^{r} \left(x_{ik} - x_{ik} \right)^2 + \left(y_{ik} - y_{ik} \right)^2 \right]^{1/2}$$

Where X_{ik}, X_{jk} are the projections of points i and j on dimension k

(K= 1, 2, ..., r)

The stress value is calculated as a badness of fit at 10 per cent. So any value below the value of allowable badness of fit is acceptable.

$$Stress = t - \frac{\sum d^2 i\hat{j}}{\sum d^2 ij}$$

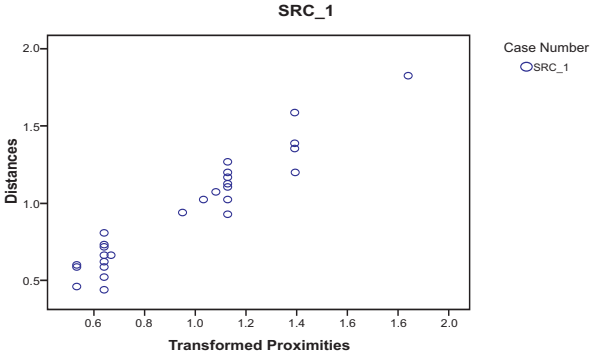
In the present study about 86 per cent of the total respondents are coming under the income level of higher than Rs.10, 000 and above the age of 30. About 90 per cent of the respondents are coming between the ages of 25-60. Out of this, 39 per cent are coming under the age 40-50, 28.6 per cent are coming under the age 30-40 and 22.4 per cent are coming under the age 50-60. Out of the total respondents, 54.7 per cent are salaried employees, 31 per cent are businessmen and 14.2 per cent are professionals. The people who are very much aware of credit card are taken into consideration.

5. Empirical Analysis

5.1 Multi-Dimensional Scaling (MDS)-I

MDS is proposed to help understand people's judgments of the similarity of members of a set of objects. MDS pictures the structure of a set of objects from data that approximate the distances between pairs of the objects. Multi-dimensional scaling is based on similarity/dissimilarity approach. Here pairs of brands are taken to study the superiority of the brand through the ordinal scale. Four public sector banks and four private sector banks are taken in a matrix form of 8x8. Accordingly the respondents have given their preferences for the different banks (public sector and private sector). Finally it came in the form of 8x8 dissimilarity matrix. Final perceptual map is drawn to know the Euclidian distance among the different banks as shown in Figure 1.

Figure 1: Residual Plots



Proximity Scale (PROXSCAL) output is presented in Table-1. It is observed that Dispersion Accounted For (DAF) is 0.99018, and Tucker's Coefficient of Congruence (TCC) is 0.99508, which is goodness for fit measures and also higher is better fit. Stress 1 is normally used when comparing among solutions. It has been observed in the study that stress 1 is quite lower, i.e., 0.09910. Also normalized raw stress and stress II are quite lower, i.e., 0.00982 and 0.27640 repectively, which is depicted in Table 1.

Table 1: Stress and Fit Measures

Normalized Raw Stress	0.00982
Stress-I	0.09910[a]
Stress-II	0.27640[a]
S-Stress	0.02665[b]
Dispersion Accounted for (D.A.F.)	0.99018
Tucker's Coefficient of Congruence	0.99508
PROXSCAL minimizes Normalized Raw Stress.	
a. Optional scaling factor = 1.010.	
b. Optional scaling factor = 0.993.	

Each of the four stress statistics measures the misfit of the data, while the Dispersion Accounted For and Tucker's Coefficient of Congruence measure the fit is experiential from Table 1.

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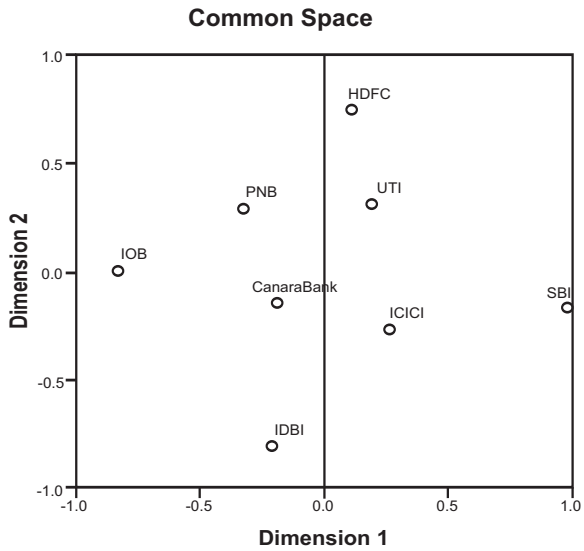
Table 2 exhibits that the respondents have given highest rank to SBI (i.e., 0.983) in dimension-1 and next highest rank to ICICI (i.e., 0.259). This

Table 2: Final Coordinates

Banks	Dimension	
	1 (Risk Free)	2 (Service)
SBI	0.983	-0.172
PNB	-0.321	0.298
IOB	-0.829	0.013
Canara Bank	-0.184	-0.143
UTI	0.196	0.319
ICICI	0.259	-0.262
IDBI	-0.214	-0.802
HDFC	0.111	0.748

explains that respondents' weightage is highest to SBI credit card followed by ICICI credit card.

Figure 2: Object Points



It is observed that respondents preferred most to "Risk Free" and "Service" of the bank credit card. The perceptual map (Figure 2) is drawn by taking the preferences of respondents through the ranking scales. Euclidian distance is measured to know the gap among the different brands of credit cards.

Euclidian Distance

Table 3 highlights the respondents' ranks for different banks through Euclidian distances. Further, the distances from one brand to another brand of credit cards are presented in the table. It is observed that the Euclidian distance between State Bank of India (SBI) and Indian Overseas Bank (IOB) is the highest (i.e., 1.821), which indicates that respondents have given highest rank to SBI and least rank to IOB in dimension-1. But HDFC is the next highest Euclidian distance from IDBI (i.e., 1.584). The least distance (i.e., 0.729) between State Bank of India (SBI) and ICICI shows that respondents have given second rank to ICICI bank.

5.2 Multi-Dimensional Scaling (MDS)-II

Proximity Scale (PROXSCAL) outputs are presented in Table 4. It is perceived that Dispersion Accounted For (DAF) is 0.97113 and Tucker's Coefficient of Congruence (TCC) is 0.98546. These are goodness of fit measures and also higher is better fit. The four stress coefficients are measures of misfit but lowers are better fit. Stress 1 is normally used when comparing among a solution which is quite lower i.e., 0.16990. It is observed that normalized raw stress and stress-II are quite lower, i.e., 0.02887 and 0.42492 respectively.

It is observed from Table 4 that each of the four stress statistics measures the misfit of the data.

Table 3: Respondents' Ranks

Banks	SBI	PNB	IOB	Canara Bank	UTI	ICICI	IDBI	HDFC
SBI	0.000							
PNB	1.385	0.000						
IOB	1.821	0.583	0.000					
Canara Bank	1.167	0.461	0.664	0.000				
UTI	0.927	0.517	1.069	0.597	0.000			
ICICI	0.729	0.806	1.122	0.459	0.585	0.000		
IDBI	1.352	1.105	1.021	0.660	1.193	0.717	0.000	
HDFC	1.267	0.624	1.193	0.938	0.438	1.021	1.584	0.000

Figure 3: Residuals Plot

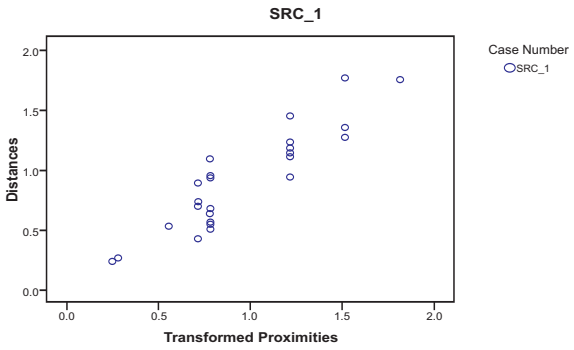


Table 4: Stress and Fit Measures

Normalized Raw Stress	0.02887
Stress-I	0.16990[a]
Stress-II	0.42492[a]
S-Stress	0.07500[b]
Dispersion Accounted For (D.A.F.)	0.97113
Tucker's Coefficient of Congruence	0.98546
PROXSCAL minimizes Normalized Raw Stress.	
a. Optimal scaling factor = 1.030.	
b. Optimal scaling factor = 0.981.	

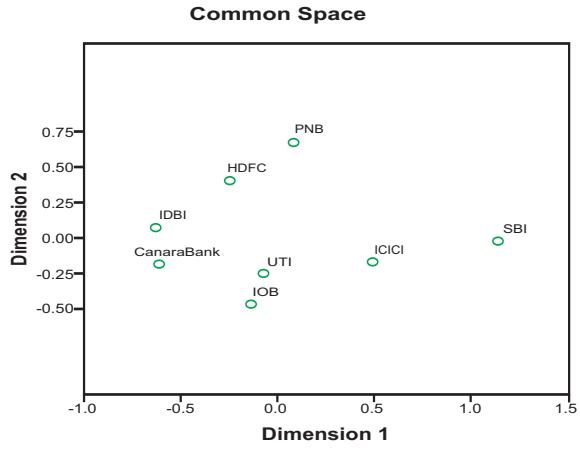
PROXSCAL outputs are presented in Table 5. It is observed from the table that respondents have given highest rank to SBI (i.e., 1.138) and in dimension 2 highest rank is given to PNB (i.e., 0.680). This explains that respondents' weightage is highest to SBI credit card followed by PNB credit card.

Table 5: Final Coordinates

Banks	Dimension	
	1 (Service)	2 (Security)
SBI	1.138	-0.028
PNB	0.078	0.680
Canara Bank	-0.610	-0.199
IOB	-0.142	-0.485
UTI	-0.076	-0.257
ICICI	0.488	-0.182
IDBI	-0.629	0.067
HDFC	-0.248	0.405

The perceptual map is drawn by considering two factors, i.e., service and security preferred by respondents through the ranking scale. The location of different bank's position is purely based on the perceptual map of the respondents generated by the MDS. Euclidian distance is measured to know the gap among the different brands of credit cards.

Figure 4: Object Points



The distances from one brand to another of credit cards are represented in the Table-6. The Table presents the highest Euclidian distance between SBI and IDBI (i.e., 1.769) and the least distance from SBI is ICICI (i.e., 0.668). So respondents have given next highest rank to ICICI after SBI. They have given least rank to IDBI in dimension 1. Table 6 also highlights the respondents' ranks for different banks through Euclidian distances.

Table 6: Euclidian Distances

Banks	SBI	PNB	Canara Bank	IOB	UTI	ICICI	IDBI	HDFC
SBI	0.000							
PNB	1.274	0.000						
Canara Bank	1.756	1.116	0.000					
IOB	1.359	1.186	0.548	0.000				
UTI	1.235	0.949	0.537	0.237	0.000			
ICICI	0.668	0.954	1.098	0.699	0.569	0.000		
IDBI	1.769	0.936	0.266	0.736	0.641	1.144	0.000	
HDFC	1.452	0.427	0.704	0.896	0.684	0.941	0.509	0.000

6. Conclusion

This exploratory study signifies that the customers' preferences can be changed with the change in value added services available with different brands of credit cards. Both MDS I and MDS II, which have been conducted in different timings with different sample of people, have given the similar kind of perceptual map of highest rank to SBI and ICICI respectively. Customers have given highest priority to the factors, like risk free factors and service. In both the cases, customers' dimensions are changed but it does not have any influence towards perception of the customers on most prioritized brands (i.e., SBI and ICICI). The factors identified in the study provide information regarding customers' preferences and priorities, which will enable company to make a higher volume of business, better profitability and longer market share by offering the promised quality of service. All the above aspects need close review as the opportunities are tremendous and every opportunity is associated with challenge. So the study concludes that sometimes the brand image of the company gives major impact on the perception of the customers, which indirectly makes the customer as a brand loyal one. The financial institutions/banks should have the clear vision and mission that should be known to the stakeholders, i.e., customers, employees, agents and business associates. As the market moves from emerging to the emerged one, a change in approach is necessary to capture market more rigorously. To achieve success in marketing of credit card, the entire business environment is to be considered.

The empirical study no doubt provides a clear picture to the banks and customers to evaluate and improve their own skill. In order to have a good performance of the market, investor's awareness about the product, price and financial strength should be enhanced. Further, the sample which has been taken, may not be the replica of the population of India. It is a convenience sample which shares some characteristics of Indian consumers. A study with a sample from different parts of India and the representatives of their diverse population can be recommended for further research.

References

Amin H. (2007). An Analysis of Mobile Credit Card usage Intentions. *Information Management & Computer Security*, Vol. 15 No. 4, pp. 260-269.

Braunsberger K., Lucas L. A. & Roach D. (2005). Evaluating the Efficacy of Credit Card Regulation. *International Journal of Bank Marketing*, Vol. 23, No. 3, pp. 237-254.

Devlin J. F., Worthington S. & Gerrard P. (2007). An Analysis of Main and Subsidiary Credit Card Holding and Spending. *International*

Journal of Bank Marketing, Vol. 25 No. 2, pp. 89-101.

Doost R. K. (1997). Why we need to use Credit Cards: a University Experience. *Managerial Auditing Journal*, Vol. 12, No. 2, pp. 105-106.

Fock H. K., Woo K. & Hui M. K. (2005). The Impact of a Prestigious Partner on Affinity Card Marketing. *European Journal of Marketing*, Vol. 39, No. 1/2, pp. 33-53.

Goyal A. (2004). Role of Supplementary Services in the Purchase of Credit Card Services in India. *Asia Pacific Journal of Marketing and Logistics*, Vol.16, No. 4, pp.36-51.

Hirschman E. C. (1979). Differences in Consumer Purchase Behaviour by Credit Card Payment System. *Journal of Consumer Research*, Vol. 6 No. 5, pp. 58-66.

Kaynak E. & Ugur K. (1984). A Cross-Cultural Study of Credit Card Usage Behaviours: Canadian and American Credit Card Users Contrasted. *International Journal of Bank Marketing*, Vol. 2, No. 2, pp. 45-57.

Kaynak E., Kucukemiroglu O. & Ozmen A. (1995). Correlates of Credit Card Acceptance and usage in an Advanced Developing Middle Eastern Country. *Journal of Services Marketing*, Vol. 9, No. 4, pp. 52-63.

Kim, J. & Charles W. M. (1989). *Introduction to Factor Analysis: What It Is And How To Do It?* Newbury Park, CA: Sage Publications Series Number 7-13.

Kotler P. (2004). *Marketing Management*. Pearson Education Inc. Delhi, India.

Indian Credit Card holders are poor users–Times New Network, *The Economic Times,* online, July 21, 2003.

Plastic Money: the currency of Modern India – www.personalfn.com, July 14, 2000.

Raghu M. (2007). Bringing Card usage down to Earth. *Economic Times*.

Schiffman L. G. & Kanuk L. L. (1995). *Consumer Behavior*, Prentice-Hall of India Private Limited, New Delhi, India.

Sharma D. D. (2004). *Marketing Research: Principle & Applications and Cases.* Sultan & Sons. Educational Publissers, New Delhi, India.

The Hindu. (2007). Credit Card Users' Association Launched.

Tripathy N. P. (2006). Credit Card: Emerging challenges for Today's Bankers. *Pranjana-The Journal of Management Awareness*.

Tripathy N. P. (2006). A Service Quality Model for Customers in Public Sector Banks. *ICFAI Journal of Bank Management*.

Tripathy N. P. Buying Behaviour Model of Debit Card Consumers- a New Challenges for Indian Bankers. SINERGY, Indonesia Islamic University, vol. 8, No. 2, June.

Tripathy N. P. (2010). *Financial Services*. PHI Publication, New Delhi.

Worthington Steve (2005). Entering the Market for Financial Services in Transitional Economies: A Case Study of Credit Cards in China. *International Journal of Bank Marketing*, Vol. 23, No. 5, pp. 381-396.

www.economywatch.com/india-credit-cards/types/-30k)

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Sales Strategies of Small and Medium Enterprises in Cambodia: A Comparative Analysis

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ABSTRACT

Small enterprises (SEs) and medium enterprises (MEs) had the common, and also the different sales and marketing strategies. The sales strategies used by the surveyed small and medium enterprises in the study area are broadly classified into four categories, i.e., sales strategies during the special periods, push and pull sales tactics, sales strategies of creation of activities and participation in different events, and sales strategies in the form of incentives to sales staff. During the special periods, in most of the cases of sales strategies used by the SMEs, significant differences were found on their sales expectations. Medium enterprises were found to be more benefitted from the sales strategies compared to small enterprises during the special periods. Though both small and medium enterprises were using push and pull sales tactics in the study area but the percentage of medium enterprises following different push and pull sales tactics was more compared to small enterprises. In terms of creation of activities and participation in events, the percentage of medium enterprises using these strategies was also more as compared to small enterprises. Similarly, the more percentage of medium enterprises provided different sales incentives to the staff compared to small enterprises to motivate the staff, and to increase their sales. Both small and medium enterprises were flexible on their sales strategies in order to compete with each other in the market. But medium enterprises were found to be better off in using different sales strategies compared to small enterprises.

Key Words: Small and Medium Enterprises, Sales Strategies, Sales Tactics

1. Introduction

Small and Medium Enterprises (SMEs) contribute to economic growth, develop social infrastructure, create employment opportunities and help in regional and local development of an economy (Scupola, 2001). But, most SMEs lack technical expertise (Barry and Milner, 2002), and adequate capital for making technological improvements (Barray and Milner, 2002; Raymond, 2001). At the same time, many SMEs suffer from inadequate organizational planning and sales strategies (Tetteh and Burn, 2001; Miller and Besser, 2000). SMEs are different from large enterprises in terms of the scope of the products or service varieties available

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to the customers (Reynolds et al., 1994; Afzal, 2007). The essential characteristics and sales strategies of SMEs are also different from large enterprises. In this regard, Westhead and Storey (1996), and Hill and Stewart (2000) mentioned the key issue as "Uncertainly" which originates from the lack of control over external environment, better to say "The Market and Sales Environment" and consequently, this is an external factor that characterizes smaller organizations. Due to lack of control over market place and the external environment, SMEs mostly set and run short term policies and strategies, including sales strategies, which enable them to change the strategies whenever necessary by looking to the market situation. But such short scenarios lead to uncertainty (Afzal, 2007).

Cambodia has made considerable progress with the dismantling of the political and military organization of the Khmer rouge and their integration into mainstream of the society. The Royal Government has achieved tangible results by implementing the "Triangle Strategy". Almost four years of its darkness period in history and emerging in January 1979, from below zero growth, the country bounced back to normalcy and rebuilt the destroyed institutions and capacities in various fields in 1993. Faster development could take place with resumption of long denying of external assistance (CDC, 2002).

The government of Cambodia has commenced strong effort through various reforms in the economy from 1980s and extended to a dramatic turning point in 1989, when the country was at the state economy and turned to free market economy. The enterprises owned by the state were privatized. The government increased motivation to local and foreign private investment. The price control was blocked and private property rights were restored. Large number of foreign direct ventures, mainly from Asian countries followed by Europe and USA, grew in the country after the free election in 1993 (Economics Watch, 2007). Government forum on privates sector on August 20, 2004 had been prepared to reduce the bureaucracy and corruption. In October 2004, Cambodia successfully became a member of World Trade Organization (WTO) after 10 years of negotiations and preparations of legal frameworks to comply with the standard level (WTO, 2006). Based on key economic indicators produced by National Institute of Statistics (NIS) and projected by Economic Institute of Cambodia (EIC) in April 2007, percentage contribution of industrial sector in Cambodia economy had increased from 12.5 in 2003 to 17.1 in 2006 while in service sector it had increased slightly from 8.6 to 10.4 per cent in the same year. In 2006, Cambodia enjoyed double digit economic growth at an expected rate of 10.4 per cent, and this was achieved after 13.4 per cent growth in 2005 and 10 per cent in 2004. Micro, small and medium enterprises accounted for 99 per cent of firms by consuming 45 per cent of employment from labor force market (ADB, 2006). The growth was mainly boosted by the continuous expansion of garment exports, which were strongly supported by US and EU. In spite of the sharp increases in the prices of oil and other imported inputs, there has been considerable improvement in the construction activities, and also the arrivals of the tourists in the country have increased to a large extent.

In August 2004, an SME subcommittee was established by decision No.46SSR (Code number of the decision) consisting of nine Ministries and Chamber of Commerce who were to play an essential role in proposing necessary measures to raise up the implementation of policy and program to act in accordance with Rectangular Strategy of the government notably in the area of private sector development by developing competitive advantage for SMEs and proposing incentive policies, and developing activity plan to promote and develop

SMEs (SMEs Secretariat, 2005 & 2006). The government has been trying to take diverse actions to ensure the smooth growth of the sector. Rectangular Strategy, which was proposed by the government at the beginning of its third term in July 2004, stated enhancing SMEs as one of the actions towards improvement and motivation of the private sector development and employment generation. So, the importance of SMEs is not just contributing to solve the economic issues but also eradicating social problems in the whole country (Sen, 2004). Besides this, Asian Development Bank (ADB) in 2006 pointed out four main barriers, such as SME development framework, business registration, business license system and assessment of finance to limit the growth. ADB used to solve this problem by working in cooperation with the government to strengthen banking supervision, supporting money and interbank market development, creating a legal framework in support of cooperate borrowing, including a body of civil commercial law and system, secure transaction and account standard, and supporting investment in long term development of human capacity (ADB, 2006).

Besides the above issues, SMEs have confronted many problems as well. Based on the study of Cambodia Development Resource Institute (CDRI) in 2002, the SMEs in the country faced aggressive competition with imported products, and sales with dumping prices because of the smuggled products from Thailand and Vietnam. The government has been trying to check the smuggling activities in the consumer products. Another problem is that though the production costs of the domestic products were very low, but the wholesalers, because of their dominance, bought the products from the SMEs at lower prices, and sold the products at higher prices in the market and got more profit. Consequently, the SMEs were the losers. Furthermore, because of the fluctuation of exchange rates of Thai Bath and Vietnamese Dong in terms of Cambodian Riel, very often, there were increases in the prices of consumer products in the country (CDRI, 2002). In addition, due to lack of skill and no updated technology, the local SMEs were facing problems to produce the outputs to meet the quality standard of the market. The SMEs located far from the city could not compete in the market because of their high cost of production and long distance to bring the products to sell in the market. Another problem was that the cost of marketing of the SMEs, i.e., advertising cost, was very expensive (ibid). In spite of many sales problems, the SMEs in the country were using different kinds of sales strategies to compete each other, and finally to increase their sales volume.

2. Review of Literature

Sales strategy is the planning of sales activities, such as methods of reaching clients, getting the competitive differences and utilization of available resources. A strategic selling is a carefully conceived plan that is needed to accomplish a sales objective. Tactics involve the day-to-day selling: prospecting, sales process, and follow-up. The tactics of selling are very important but equally vital is the strategy of sales (Zahorsky, 2007).

Zahorsky developed his triple-tiered sales strategy of SMEs as: Tier 1: Association, Tier 2: Suppliers and Tier 3: Customer. These three approaches are important to understand the customers by looking at client and outside influences on the business. The insight gained for a competitive advantage comes from the marketplace not from the mind.

Rana had studied on the sales strategies of small enterprises of two countries, namely, US and Pakistan. According to her, the sales strategy was divided into four components: internal traits of salespeople, the interaction of salesperson and the customer in the sales day, the sales techniques used and the impact of structure, policies and culture (Rana, 2004).

Neil Rackman, author of *Rethinking the Sales Force*, and other experts in sales and marketing felt that the success in personal selling rest on the critical ability to create value for customers. Manning and Reece in 2004 advocated that the strategic or consultative selling model features in five steps, such as: developing the personal selling philosophy, developing a relationship strategy, developing a product strategy, developing a customer strategy and developing a presentation strategy.

According to Zahorsky (2007), the competitive advantages of strategic sales of SMEs are: increased closing ratio by knowing clients' hot buttons, improved client loyalty by understanding the need, shortened sales cycle with outside recommendation and outsell competitions by offering the best solution.

There are two basic types of sales strategies that can be employed to promote sales. (i) Direct sales strategy – it means going head to head, and feature for feature against the competitor. A direct sales strategy is a hard way to sell, unless one has clear superiority over his competitor. (ii) Indirect sales strategy - It is done by introducing new capabilities and criteria that the competitor may not have and by making the sales strategies essential to the buyer's evaluation criteria (Brown, 2008).

Jobber (1997) felt that the companies need to provide to their sales representatives an understanding of buying behavior, personal selling skills and commercial negotiations as fundamental successful sales strategies. The next success strategy is managing customer relationship, which includes trade marketing, telemarketing, relationship management, and selling to and managing key accounts.

SMEs' sales strategies begin from the process of effective selling skills to the contacting of all the intermediaries (retailer and wholesalers, etc.). To solve the sales problems and convince the intermediaries to accept the products, SMEs must make the advertisings, public relations and marketing activities to support and build brand image of the products (Kawasaki, 2007).

The study in Singapore shows that the bigger firms were able to use the mass media via television, along with their strong sales tactics. But due to the shortage of financial resources, SMEs were contended with promotions through newspapers, magazines, flyers, radio, and word of mouth (Lim et al., 2000).

The study on sales strategy of SMEs of consumer products shows that SMEs ignored the direct sales agents by setting up a one-stop retail outlet for the most comprehensive range products and services in order to compete with large firms. To avoid price war with the large firms, SMEs maintained the same prices as that of the large firms. But they improved the range and quality of the products. In addition, to enhance more sales, they just provided brochure, friendly soft toys for children and some additional services in their sales tactics. The SMEs kept pursuing the strategy of providing quality products and ensuring superior value delivery (ibid).

Internet offers opportunities for companies to market and sell their products and services around the world without physical contact with customers. SMEs' business was lacking in the use of internet for selling and advertising the products. Effective use of internet for selling and marketing would provide SMEs with low cost gateway to sell and offer them huge opportunities (Sam, 2007).

The research study of Kordestani (2008) showed that export was the mode of international selling. In Iran, SMEs' products were exported and the amount of exports increased annually. The success

of the international sales was because of promotion campaign and advertising of the same standard as in the domestic market. The SMEs with high export performance did not adapt their pricing strategies, but they relied on their standardized distribution strategies. The success (sales volume, sales revenue, sales profitability, etc.) of the sales strategy was because of standardized product (i.e., the same labeling, brand, quality, etc.) and simple promotion strategy (advertising, channels, etc.).

The study of Nordstrand and Ohman in 2005 showed that the successful SMEs were taking the initiatives to adapt to the consumer demands. They also needed to have knowledge over both market and product area in order to set the right price. Adapt to consumer demands, setting right price, tradeshow and promotion could support the sales tactics and strongly improve sales volume. The study also showed that a short distribution channel and thereby short distribution time led to increase sales for SMEs.

SMEs in different countries have different sales and marketing strategies. At present, they sell through four channels: direct sales, own shop, wholesale and retail, and export. For example, Nanjing Planck (China) and Organic Health (Malaysia) had their own shops. Organiconepal (Nepal) and Hanoi Organics (Vietnam) also operated their own shop(s) and provided a home delivery service on a membership basis. In addition, SMEs in Hanoi exported food and drinks and small amounts of organic tea to other countries. Some SMEs (India) sold their products directly or through dealers and had opened their own shops too. Thai Organic Food sold the products in supermarkets and produced vegetables for its own restaurant. SMEs producing food and drinks in Singapore supplied their products not only to wholesalers, their own shops and distributors, but also sold through home delivery (IFOAM, 2003).

SMEs personal connections had certain degree of influence in doing business. Therefore, having abundant personal connections would assert competitive edges. SMEs business information network was built on these abundant personal connections, and successful entrepreneurs had expanded social contacts. The expansions of these personal contacts not only maintained the existing basis for business deals but also brought information in on business opportunities. The information received from this channel had higher accuracy and more timely than getting those from the printed materials. As a result, Taiwanese SMEs put emphasis on establishing personal connections. In addition, credit and guarantee of many new deals were established on the friendship of mutual friends leaving out financial institutions and credit agencies. This kind of sales and marketing strategies were closely linked to SMEs' economic and social activities together. The social activities, such as wedding and funeral ceremonies, were the occasions for keeping personal contacts and developing relationship, which would help for having good business in future to the entrepreneurs. Furthermore, SMEs entrepreneurs also liked to take part in social activities to expand their personal connections (Zhu, 2006).

In Cambodia, selling with dumping prices of the smuggled imported products caused many problems to the domestic products as well as influenced the sales strategies of the enterprises selling those products. Even though the government tried to control the smuggling activities, the ineffective implementation kept continue as a trouble. Further, the wholesalers dominated the prices of the products produced by local manufacturers. They always made pressure to lower the price, which made producers impossible to survive with their less profit. The producers tried to become united by making association to maintain the stability of prices, yet the effort was failed because of lack of knowledge and

experiences. Moreover, the fluctuation of Thai Bath and Vietnamese Dong currencies in term of Cambodian Riel mostly influenced the increase in the prices of consumer products and lowered the level of sales revenue (Archarya, 2002).

The entrepreneurs in Cambodia had no professional sales strategies, sales supporting activities and business plan. Due to the high cost of advertisement, the sales promotion to increase sales was done by flyers, word of mouth and internet, which were supported by Cambodia Craft Cooperation (CCC, 2005).

A study on consumer insights and consumer product enterprises in 2007 showed that the medium enterprises (MEs) were finding difficulty to compete in the market because of smuggling activities and unlawful business operation. But they had more clear-cut sales strategy, marketing tactics and business plan than the small enterprises. Additionally, MEs had better technologies and skills to produce the standard quality products than the SEs. The outputs of MEs were easily accepted by the consumers. Further, the MEs in the country had the large budgets to make advertisement, attract impression, build brand image and stimulate sales compared to the SEs (FCB, 2007).

Thus, the above reviews of literatures show that different countries have sales strategies of SMEs. SEs and MEs had the common and also the different sales and marketing strategies. In Cambodia, the sales strategies of SMEs were mostly on direct sales force and some on annually tradeshows activities. Further, the MEs had more clear-cut sales strategy, marketing tactics and business plan than the small enterprises in the country. It is in the above context, the present paper has tried to make a comparative analysis on the sales strategies of SMEs in the capital city of Cambodia.

3. Objectives

The present study has the following objectives:

i. To examine the sales strategies used by the SMEs during the special periods to achieve the sales objectives.
ii. To identify the push and pull sales tactics of the SMEs to promote their sales.
iii. To study the sales strategies used by the SMEs through creation of activities and participation in different events.
iv. To find out the sales strategies used by the SMEs by providing different kinds of incentives to the sales staff.

4. Research Methodology

Both descriptive and quantitative approaches have been used in the study. The data for this study have been gathered mainly from primary sources, which have been collected from the sample small and medium enterprises through structured questionnaires. The study also depends on secondary data. The different sources, from which necessary secondary data have been collected, are National Institute of Statistics (NIS); Ministry of Planning (MP), Government of Cambodia; Ministry of Industry, Mines and Energy (MIME), Government of Cambodia; International Labor Organization (ILO); Mekong Project Development Facility (MPDF); and SMEs Association.

In the study, the small and medium enterprises, which are producing consumer products, especially foods and beverages, are taken into account. There are many reasons to study the SMEs producing consumer products. Based on the Cambodia Media Monitoring (CMM) in 2007, the first reason is that the sales distribution companies are trying to turn their budgets to invest on consumer products, especially foods and beverages as the second option after the first option of investment in the field of construction. Secondly, the percentage of aggressive brand marketing activities of consumer products, which are mainly foods and drinks, is 40

per cent. Thirdly, 60 per cent of consumer product brands are in the top of investments made on advertisement. Fourthly, local small and medium food and beverage enterprises as well as the new enterprises have no capabilities to compete in the market because they don't have ability to make advertisement or conduct marketing activities, like the enterprises of imported products. Further, the Cambodian people do not like the local food and beverage products much.

The study is confined to the small and medium enterprises of consumer products, particularly foods and beverages, located in Phnom Penh city. The reason to select Phnom Penh city as the study area is that 60 per cent of the companies of small, medium and large enterprises of Cambodia are located in Phnom Penh, and out of the total consumer products of the companies in the country, 60 per cent are sold in Phnom Penh (FCB, 2006).

To determine the sample sizes of small and medium enterprises, the study follows the model used by Rana (2004). The formula for the computation of sample size of food and beverage of small and medium enterprises is as follows:

Using the Finite Multiplier,

$$\text{Sample size} = n \times \sqrt{\frac{N-n}{N-1}}$$

Where,
N= Population size
n= Sample size (Computed as per the formula given below)
n is determined as per the following formula:

$$n = \frac{z^2 pq}{e^2}$$

Where,
p= Sample proportion or percentage found in the sample, which is assumed as 90 per cent (as per previous experience).
q= (100-p) % = (100- 90) % = 10%
e= Aceptable error, which is assumed as 10 per cent
z = Standard normal variate
= 1.96 (At 95 per cent level of confidence)

The population size of small food and beverage enterprises is considered to have 363 small enterprises operating in Phnom Penh city (Yellow Pages, 2007 and Industry Directory, 2007), and out of 363 food and beverage small enterprises, 32 enterprises are taken as a sample as per the formula mentioned above. Similarly, the population size of medium enterprises of food and beverage category in Phnom Penh city is found as 336 (ibid), and the sample size for medium enterprises is also determined as 32 as per the formula of Rana.

After the determination of sample sizes of small and medium enterprises, the sample enterprises for the study are selected through systematic random sampling method. The primary data have been collected from the general managers/sales and marketing managers/supervisors/sales representatives of the selected small and medium enterprises. The data have been gathered from the above respondents through face to face interviews with structured questionnaires. The study has used both quantitative and qualitative data, and with the help of SPSS and MS Excel programs, necessary tables and graphs have been prepared to analyze the data.

To know the significance of difference between the sales strategies of small and medium enterprises, 't" test has been used in appropriate places as per the following formula:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{S} \times \sqrt{\frac{n_1 n_2}{n_1 - n_2}}$$

Where,

$\overline{X}_1$ = **Mean of the first sample (Small Enterprises)**

$\overline{X}_2$ = **Mean of the second sample (Medium Enterprises)**

n_1 = **Number of observations in the first sample (Small Enterprises)**

n_2 = **Number of observations in the second sample (Medium Enterprises)**

S = **Combined standard deviation (Small and Medium Enterprises)**

$$S = \sqrt{\frac{\sum\left(X_1 - \overline{X}_1\right)^2 + \sum\left(X_2 - \overline{X}_2\right)^2}{n_1 + n_2 - 2}}$$

d.f. (The degrees of freedom) = $n_1 + n_2 - 2$

To obtain the't' result, SPSS program has been used.

5. Sales Strategies of Small and Medium Enterprises

The different sales strategies used by the surveyed small and medium enterprises in the study area are broadly classified into four categories, i.e., sales strategies during the special periods, push and pull sales tactics, sales strategies of creation of activities and participation in different events, and sales strategies in the form of incentives to sales staff.

5.1 Sales Strategies During the Special Periods

During the special periods (public or non public holidays) like Seven January Days (Prampi Markara), Chinese New Year, Valentine Day, Khmer New Year, Pchum Ben Day, Independence Day, Water Festival, Christmas Day and Universal New Year, the small and medium enterprises in the country give special discount, participate in trade or product show and carry out several other marketing activities. The comparative analysis on the achievements in sales of the surveyed SMEs due to specific sales strategies adopted during the special periods are:

5.1.1 Ten Per Cent Discount

On the whole, 10 per cent discount sales strategy was not applicable to 43.75 per cent small and medium enterprises. The sales of 12.50 per cent SMEs were up to their expectations, and about 36 per cent enterprises had the sales more than the expectations. Only 1.56 per cent SMEs failed to

Table 1: Sales Expectations of SMEs at 10 Per Cent Discount

Type of Sales Expectation	Small Enterprises		Medium Enterprises		Total		't' Test	
	Number	%	Number	%	Number	%	(Two-tailed test)	
Largely exceeded the expectation	4	12.50	2	6.25	6	9.38	't' value	3.205
Slightly exceeded the expectation	2	6.25	15	46.88	17	26.56	d.f.	62
Met the expectation	3	9.38	5	15.63	8	12.50	Significance Level	0.002
Fell slightly short of the expectation	2	6.25	2	6.25	4	6.25		
Failed to meet the expectation	1	3.13	0	0.00	1	1.56		
Not applicable	20	62.50	8	25.00	28	43.75		
Total	32	100.00	32	100.00	64	100.00		

Note: Not applicable refers to those who did not use any promotion activity of the above tactic, and their sales remained more or less same as it was.

Source: Own Survey.

meet the sales expectations. Looking to the small enterprises, the above discount rate sales strategy was not applicable to 62.50 per cent small enterprises as against 25.00 per cent in case of medium enterprises. The small and medium enterprises who met the sales expectation due to 10 per cent discount where 9.38 per cent and 15.63 per cent respectively. Further, the sales of about 19 per cent small enterprises and about 53 per cent medium enterprises were more than the expectations. The 't' test reveals that there was significant difference between the sales expectations of small and medium enterprises due to 10 per cent discount rate sales strategy at one per cent level of significance and 62 degrees of freedom and 't' value is equal to 3.205 (Table 1).

5.1.2 Twenty Per Cent Discount

Among the 64 surveyed SMEs, 20 per cent discount sales was not applicable to 60.94 per cent SMEs. However, 17.19 per cent SMEs met the sales expectation, and the sales of more than 14 per cent SMEs exceeded their expectations. Only 1.56 per cent SMEs failed to meet their expected sales. The above discount sales strategy was not applicable to 84.38 per cent small enterprises as against 37.50 per cent in case of medium enterprises. The percentages of small enterprises whose sales were up to the expectation and more than the expectation were 6.25 each, whereas, the corresponding respective percentages for medium enterprises were 28.13 and 21.88. The above analysis indicates that there was much difference in the sales between small and medium enterprises due to sales strategy of 20 per cent discount during the special periods. This can be seen from the 't' results mentioned in the table. The level of significance of the above result was one per cent and degrees freedom 62 with 't' value – 3.97 (Table 2).

Table 2: Sales Expectations of SMEs at 20 Per Cent Discount

Type of Sales Expectation	Small Enterprises		Medium Enterprises		Total		't' Test	
	Number	%	Number	%	Number	%	(Two-tailed test)	
Largely exceeded the expectation	0	0.00	2	6.25	2	3.13	't' value	-3.97
Slightly exceeded the expectation	2	6.25	5	15.63	7	10.94	d.f.	62
Met the expectation	2	6.25	9	28.13	11	17.19	Significance Level	0.00
Fell slightly short of the expectation	1	3.13	3	9.38	4	6.25		
Failed to meet the expectation	0	0.00	1	3.13	1	1.56		
Not applicable	27	84.38	12	37.50	39	60.94		
Total	32	100.00	32	100.00	64	100.00		

Note: Not applicable refers to those who did not use any promotion activity of the above tactic, and their sales remained more or less same as it was.

Source: Own Survey.

5.1.3 Thirty Per Cent Discount

The study shows that 30 per cent discount sales strategy was not applicable to 76.56 per cent selected SMEs. The sales of 10.94 per cent SMEs were up to the expectation, and 7.81 per cent SMEs had the sales slightly less than the expectation. Relating to only small enterprises, the above sales strategy was not applicable to 93.75 per cent of them. On the other hand, in case of medium enterprises, it was 59.38 per cent. But 18.75 per cent medium enterprises were found to have the sales up to the expectation followed by 15.63 per cent having the sales slightly less than the expectation. Thus, significant difference is found between the achievements in the sales expectations of small and medium enterprises on 30 per cent discount sales strategy. The above result can be inferred from the 't' test, which indicates the significance of difference of one per cent with 't' value 0.447 and degrees of freedom 62 (Table 3).

Table 3: Sales Expectations of SMEs at 30 Per Cent Discount

Type of Sales Expectation	Small Enterprises		Medium Enterprises		Total		't' Test	
	Number	%	Number	%	Number	%	(Two-tailed test)	
Largely exceeded the expectation	0	0.00	1	3.13	1	1.56	't' value	0.447
Met the expectation	1	3.13	6	18.75	7	10.94	d.f.	62
Fell slightly short of the expectation	0	0.00	5	15.63	5	7.81	Significance Level	0.001
Failed to meet the expectation	1	3.13	1	3.13	2	3.13		
Not applicable	30	93.75	19	59.38	49	76.56		
Total	32	100.00	32	100.00	64	100.00		

Note: Not applicable refers to those who did not use any promotion activity of the above tactic, and their sales remained more or less same as it was.

Source: Own Survey.

5.1.4 Forty Per Cent Discount

Forty per cent discount sales strategy was found to be not applicable to more than 81 per cent SMEs in the surveyed area. Among the 64 selected SMEs the percentages of SMEs whose sales slightly exceeded the expectation, met the expectation, fell slightly short of the expectation and failed to meet the expectation were 6.25, 4.69, 3.13 and 4.69 respectively. Out of 32 surveyed small enterprises, the above sales strategy was not applicable to about 97 per cent SMEs in the study area. On the other hand, in case of medium enterprises, it was not applicable to around 66 per cent enterprises. The percentage of medium enterprises each having the sales slightly more than the expectation, up to the expectation and failing to meet the expectation was 9.38, whereas, 6.25 per cent medium enterprises has the sales slightly less than the expectation. From the 't' test, it is revealed that the difference in the sales expectation of SMEs on 40 per cent discount sales strategy was significant at one per cent level of significance with 't' value 2.69 and degrees of freedom 62 (Table 4).

Table 4: Sales Expectations of SMEs at 40 Per Cent Discount

Type of Sales Expectation	Small Enterprises		Medium Enterprises		Total		't' Test	
	Number	%	Number	%	Number	%	(Two-tailed test)	
Slightly exceeded the expectation	1	3.13	3	9.38	4	6.25	't' value	2.69
Met the expectation	0	0.00	3	9.38	3	4.69	d.f.	62
Fell slightly short of the expectation	0	0.00	2	6.25	2	3.13	Significance Level	0.01
Failed to meet the expectation	0	0.00	3	9.38	3	4.69		
Not applicable	31	96.88	21	65.63	52	81.25		
Total	32	100.00	32	100.00	64	100.00		

Note: Not applicable refers to those who did not use any promotion activity of the above tactic, and their sales remained more or less same as it was.
Source: Own Survey.

5.1.5 Fifty Per Cent Discount

Among the surveyed enterprises, 50 per cent discount sales was not applicable to 82.81 per cent enterprises. The sales of 3.13 per cent enterprises were up to the expectation, and the sales of around five per cent enterprises were more than the expected sales. The percentages of SMEs whose sales fell slightly short of the expectation and failed to meet the expectation were 6.25 and 3.13 respectively. In regard to small enterprises, 96.88

Table 5: Sales Expectations of SMEs at 50 Per Cent Discount

Type of Sales Expectation	Small Enterprises		Medium Enterprises		Total		't' Test	
	Number	%	Number	%	Number	%	(Two-tailed test)	
Largely exceeded the expectation	1	3.13	1	3.13	2	3.13	't' value	2.18
Slightly exceeded the expectation	0	0.00	1	3.13	1	1.56	d.f.	62
Met the expectation	0	0.00	2	6.25	2	3.13	Significance Level	0.033
Fell slightly short of the expectation	0	0.00	4	12.50	4	6.25		
Failed to meet the expectation	0	0.00	2	6.25	2	3.13		
Not applicable	31	96.88	22	68.75	53	82.81		
Total	32	100.00	32	100.00	64	100.00		

Note: Not applicable refers to those who did not use any promotion activity of the above tactic, and their sales remained more or less same as it was.
Source: Own survey.

per cent were not using the above sales strategy and the sales of the rest 3.12 per cent small enterprises increased much more than their expectations because of 50 per cent discount sales strategy. On the other hand, the above strategy was not applicable to 68.75 per cent medium enterprises. Only 6.25 per cent medium enterprises met the sales expectation, and the equal percentage did not meet their expected sales because of the discount sales. Furthermore, the sales of more than six per cent medium enterprises were more than the expectation, whereas, the percentage of enterprises having sales slightly less than the expectation was 12.50. From the above analysis, and the results of 't' test, it is found that there was significant difference between the sales expectations of small and medium enterprises at 50 per cent discount sales. The level of significance was five per cent with 't' value 2.18 and degrees of freedom 62 (Table 5).

5.1.6 Buy One and Get One Free

The study reveals that, during the special sales periods, 50 per cent surveyed SMEs did not use the sales strategy - 'Buy One and Get One Free'. The percentages of SMEs whose sales slightly exceeded the expectation, largely exceeded the expectation and met the expectation were 18.75, 15.63 and 10.94 respectively. The above sales strategy was not used by 68.75 per cent small enterprises. The sales of 18.75 per cent of the total small enterprises were slightly more than the expectation, whereas, 6.25 per cent small enterprises each met the sales expectation and met much more than the expectation. Contrary to this, 31.25 per cent medium enterprises did not follow the above strategy. Sales of 25 per cent medium enterprises largely exceeded the expectations followed by respective 18.75 per cent and 15.63 per cent enterprises had the sales slightly more than the sales expectation and up to the expectation. With regard to the above sales strategy, significant difference was found between small and medium enterprises as revealed from the 't' value 0.775 and significance level 0.007 with degrees of freedom 62 (Table 6).

Table 6: Sales Expectations of SMEs on Buy One and Get One Free Sales Strategy

Type of Sales Expectation	Small Enterprises		Medium Enterprises		Total		't' Test	
	Number	%	Number	%	Number	%	(Two-tailed test)	
Largely exceeded the expectation	2	6.25	8	25.00	10	15.63	't' value	0.775
Slightly exceeded the expectation	6	18.75	6	18.75	12	18.75	d.f.	62
Met the expectation	2	6.25	5	15.63	7	10.94	Significance Level	0.007
Fell slightly short of the expectation	0	0.00	2	6.25	2	3.13		
Failed to meet the expectation	0	0.00	1	3.13	1	1.56		
Not applicable	22	68.75	10	31.25	32	50.00		
Total	32	100.00	32	100.00	64	100.00		

Note: Not applicable refers to those who did not use any promotion activity of the above tactic, and their sales remained more or less same as it was.

Source: Own Survey.

5.1.7 Buy One and Get the Second One in Half Price

In the study area, the percentage of SMEs not using 'Buy One and Get the Second One in Half Price' sales strategy during the special period was 67.19. More than 14 per cent enterprises had sales more than the expectation, whereas, 6.25 per cent enterprises each had the sales up to the expectation, slightly less than the expectation and failing to meet the expectation. Looking to the case of small enterprises, it is found that more than 84 per cent of them had not applied the above sales strategy. The percentage of small enterprises meeting the sales expectation and having the sales slightly more than the expectation was 6.25 each, and the rest 3.13 per cent met the sales largely than that of their expectations. But 50 per cent medium enterprises were not found using the above sales strategy during the special sales periods. The sales of around 19 per cent medium enterprises were more than the expectation, and 6.25 per cent only met the sales expectation. The medium enterprises whose sales fell slightly short of the expectation and failed to meet the expectation were 12 per cent each. The comparative analysis between small and medium enterprises on the sales strategy on 'Buy One and Get the Second One in Half Price' shows significant difference in their sales expectations. The calculated 't' value was 1.975 with significance level 0.498 and 62 degrees of freedom (Table 7).

Table 7: Sales Expectations of SMEs on Buy One and Get the Second One in Half Price Sales Strategy

Type of Sales Expectation	Small Enterprises		Medium Enterprises		Total		't' Test	
	Number	%	Number	%	Number	%	(Two-tailed test)	
Largely exceeded the expectation	1	3.13	2	6.25	3	4.69	't' value	1.975
Slightly exceeded the expectation	2	6.25	4	12.50	6	9.38	d.f.	62
Met the expectation	2	6.25	2	6.25	4	6.25	Significance Level	0.0498
Fell slightly short of the expectation	0	0.00	4	12.50	4	6.25		
Failed to meet the expectation	0	0.00	4	12.50	4	6.25		
Not applicable	27	84.38	16	50.00	43	67.19		
Total	32	100.00	32	100.00	64	100.00		

Note: Not applicable refers to those who did not use any promotion activity of the above tactic, and their sales remained more or less same as it was.

Source: Own Survey.

5.1.8 Buy More and Get More Special Discount

During the special period, around 78 per cent selected SMEs were found to have not using the sales strategy - 'Buy More and Get More Special Discount'. But more than 14 per cent of the surveyed SMEs met the sales expectation and the sales of the rest 7.81 per cent SMEs exceeded the expectation. The percentage of small enterprises not using the above sales strategy was 84.38 as against 71.88 in case of medium enterprises. The sales of 9.38 per cent and 6.25 per cent small enterprises were up to the expectation and slightly more than the expectation respectively. On the other hand, the corresponding respective percentages for medium enterprises were 18.75 and 9.38. From the results of 't' test, it is found that the difference between the sales expectations of small

enterprises and medium enterprises on the sales strategy 'Buy More and Get More Special Discount' was not significant at five per cent level of significance with 't' value -1.15 and 62 degrees of freedom (Table 8).

Table 8: Sales Expectations of SMEs on Buy More and then Get More Special Discount

Type of Sales Expectation	Small Enterprises		Medium Enterprises		Total		't' Test	
	Number	%	Number	%	Number	%	(Two-tailed test)	
Slightly exceeded the expectation	2	6.25	3	9.38	5	7.81	't' value	-1.15
Met the expectation	3	9.38	6	18.75	9	14.06	d.f.	62
Not applicable	27	84.38	23	71.88	50	78.13	Significance Level	0.255
Total	32	100.00	32	100.00	64	100.00		

Note: Not applicable refers to those who did not use any promotion activity of the above tactic, and their sales remained more or less same as it was.
Source: Own Survey.

5.1.9 Special Discount for Wholesaler

In the study area, about 94 per cent surveyed small and medium enterprises did not use the 'Special Discount for Wholesaler' sales strategy. The sales of SMEs meeting the expectation and slightly more than the expectation were 3.13 per cent each because of the above sales strategy. With regard to comparative analysis of small and medium enterprises, it is also found that 93.75 per cent each did not apply the above sales strategy. Due to the above sales strategy, the sales of 6.25 per cent small enterprises were slightly more than the expectation, whereas, in case of medium enterprises, the equal percentage met the sales expectation. The analysis shows that the difference between small and medium enterprises with regard to their sales expectations on the strategy 'Special Discount for Wholesaler' is not significant as the 't' value was 0.288 with level of significance 0.775 (Table 9).

Table 9: Sales Expectations of SMEs on Special Discount for Wholesaler

Type of Sales Expectation	Small Enterprises		Medium Enterprises		Total		't' Test	
	Number	%	Number	%	Number	%	(Two-tailed test)	
Slightly exceeded the expectation	2	6.25	0	0.00	2	3.13	't' value	0.288
Met the expectation	0	0.00	2	6.25	2	3.13	d.f.	62
Not applicable	30	93.75	30	93.75	60	93.75	Significance Level	0.775
Total	32	100.00	32	100.00	64	100.00		

Note: Not applicable refers to those who did not use any promotion activity of the above tactic, and their sales remained more or less same as it was.
Source: Own Survey.

Thus, the discussions on the different sales strategies of small and medium enterprises during the special periods reveal that, except the two sales strategies, i.e., 'Buy More and Get More Special Discount' and 'Special Discount for Wholesaler', in all the other seven sales strategies, there were significant differences between small and medium enterprises with regard to their sales expectations. Medium enterprises were found to be more benefitted from the sales strategies compared to small enterprises during the special periods.

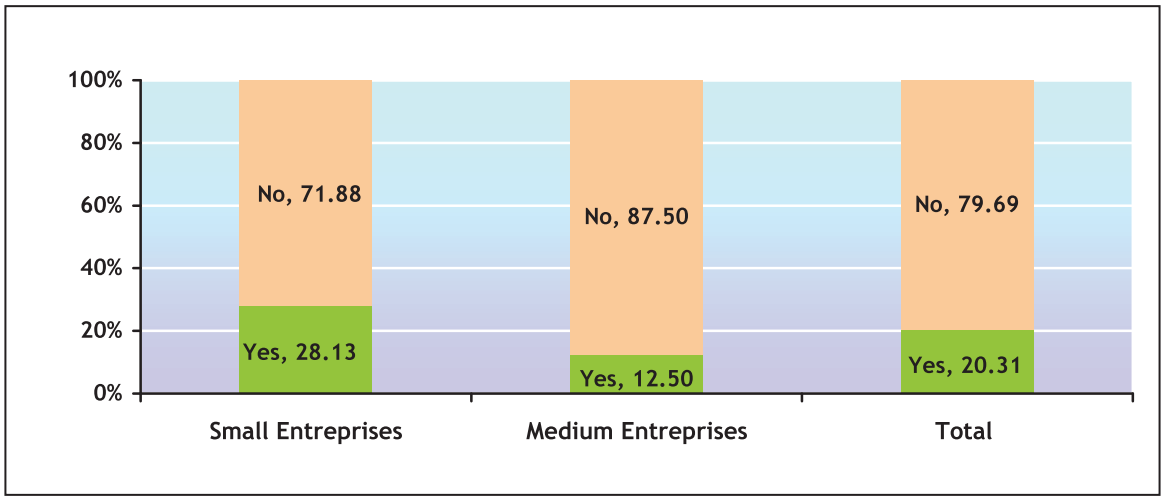
5.2 Push and Pull Sales Tactics

Push and Pull sales tactics were key factors of sales strategy, which were mostly used by the fast moving consumer product's company in the world. In the study area, the surveyed small and medium enterprises were found to be using different push and pull sales tactics to promote their sales. The important tactics followed by the SMEs are:

5.2.1 Sponsoring the Equipment for Product Display

The SMEs sponsor hanger, shelf, basket, etc. to the traders to display their products in their sales outlets. This attracts the customers, helps them to see the products' properly, and finally motivates the customers to buy the products. In the present survey, out of 64 surveyed SMEs, only 20.31 per cent of them were using the about tactic during the period of study. But the percentage of small enterprises using the sales tactic - 'Sponsoring the Equipment for Product Display' was 28.13 as against 12.50 per cent in case of medium enterprises (Figure 1).

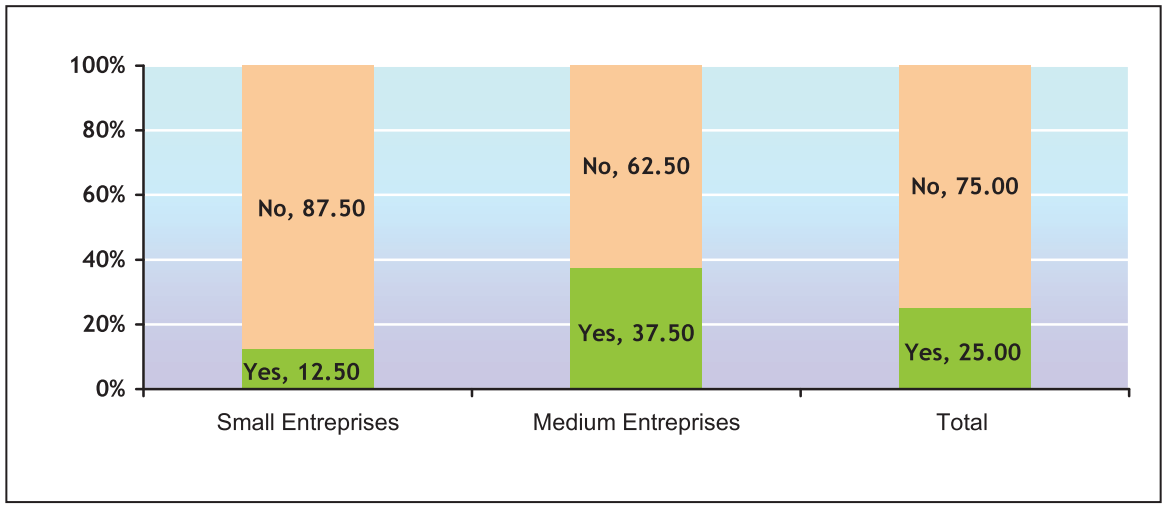
Figure 1: Percentages of SMEs using the Sales Tactic 'Sponsoring the Equipment for Products Display'



5.2.2 Trading Off the Old Products before Launching the New Products

The idea of trading off the old products before the launching of new products is followed by many small and medium enterprises in order to dispose of the old stocks of competitors' products to replace the new products through the traders. From among the total surveyed SMEs, 25 per cent used the above sales tactic. With regard to the comparison of small and medium enterprises, only 12.5 per cent small and medium enterprises had the sales tactic of trading off the old products, whereas, the percentage of medium enterprises having used the present sales tactic was higher, i.e., 37.5 (Figure 2).

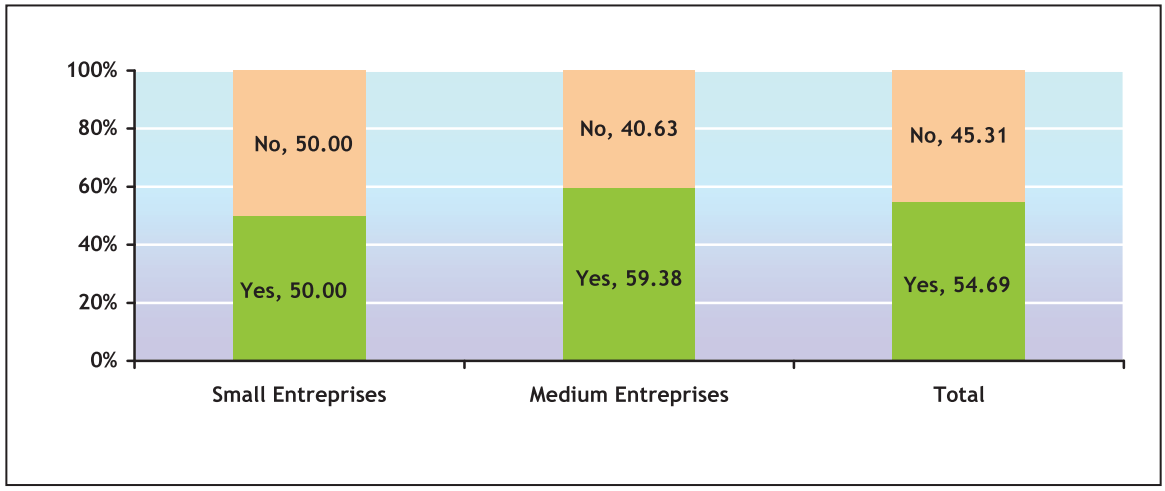
Figure 2: Percentages of SMEs using the Sales Tactic 'Trading off the Old Products before Launching the New Products'



5.2.3 Providing Advertising Support

In order to motivate the traders to sell the products, the producers make the support of advertisement of the products for traders. The study shows that 54.69 per cent of the total surveyed SMEs provided advertising support to the traders in order to increase the sales. The percentages of small and medium enterprises providing advertising support to the traders were 50.00 and 59.38 respectively (Figure 3).

Figure 3: Percentages of SMEs using the Sales Tactic 'Providing Advertising Support'

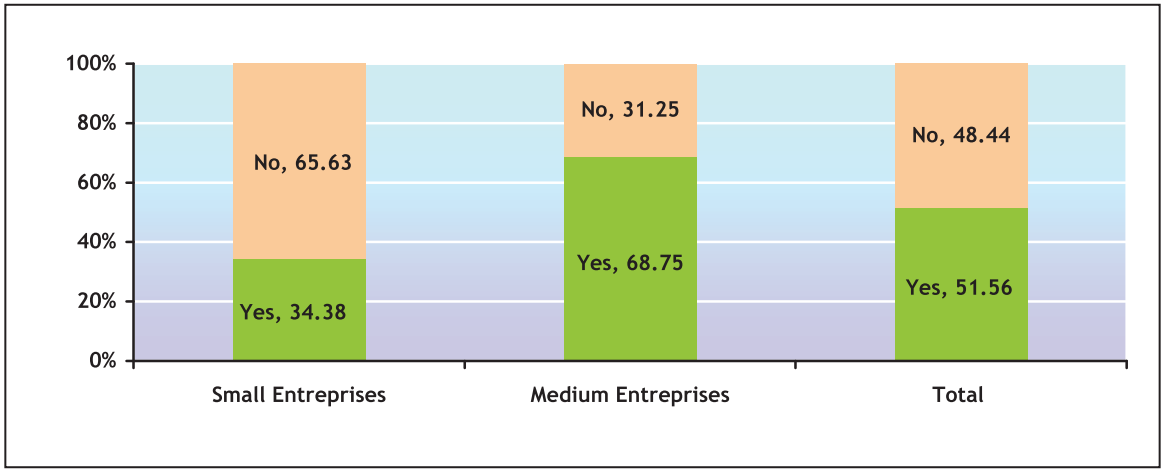


5.2.4 Providing Added Value to Intermediary

In order to achieve the sales target, the enterprises provide more added values or prizes to the sales intermediaries, so that, they are motivated to increase the sales of the products through different ways. This sales tactic was followed by 51.56 per cent of the small and medium enterprises in the study area. But only 34.38 per cent of small enterprises were found to having the above

strategy. On the other hand, 68.75 per cent medium enterprises in the study area followed the sales strategy of providing added value or prize to the intermediary (Figure 4).

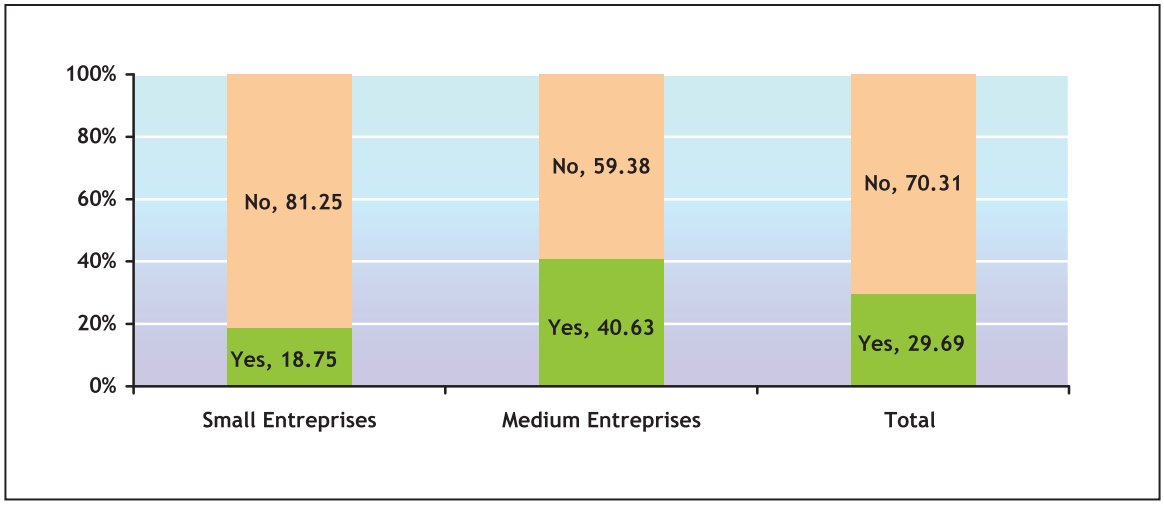
Figure 4: Percentages of SMEs using the Sales Tactic 'Providing Added Value to Intermediary'



5.2.5 Providing Sample Sales Materials or Tools

Many times, customers want to know certain information, such as about the company, quality, taste and benefit of the product, etc. before they take decision to buy the product. In this regard, the intermediaries request the producers or enterprises to provide tools or prototype, such as catalogue, product sample, user's guide, sales assistant tools or video film, presentation materials and so on. In the present survey, out of 64 selected SMEs, only 29.69 per cent of them were providing the above sales materials to the intermediaries. Further, the percentage of small enterprises using the sales tactic of providing sample sales materials or tools to the sales people in the study area was 18.75 as against 40.63 per cent in case of medium enterprises (Figure 5).

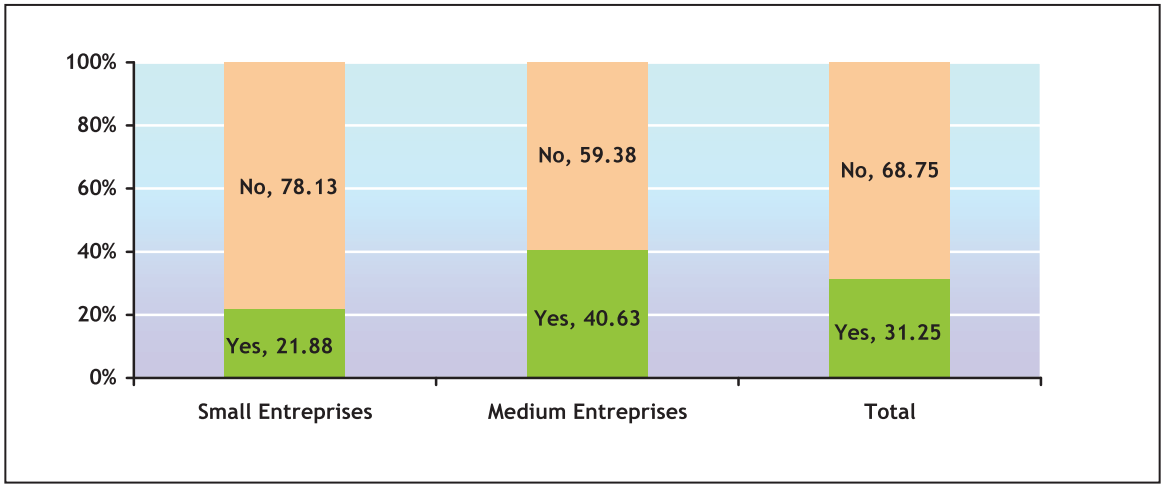
Figure 5: Percentages of SMEs using the Sales Tactic 'Providing Sample Sales Materials or Tools'



5.2.6 Making Intermediary Meeting

The enterprises make the meetings among the intermediaries during the introduction of new products in the market. In the meeting, they discuss about the new strategy of advertisement, sales promotion, etc. to improve the sales of the product. The percentage of total surveyed SMEs making intermediary meeting was 31.25 with 21.88 per cent for small enterprises and 40.63 per cent for medium enterprises in the area under survey (Figure 6).

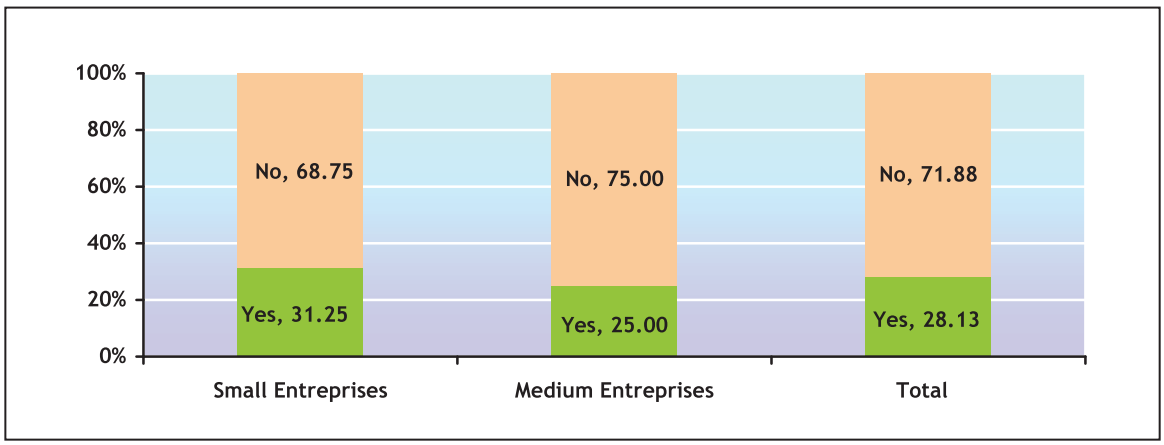
Figure 6: Percentages of SMEs using the Sales Tactic 'Making Intermediary Meeting'



5.2.7 Distributing Discounted Coupon

Distributing discounted coupon to the prospective consumers is much successful in selling the specific products. The discounted coupon is normally distributed by the enterprises through presses, magazines, packaging, shopping malls, newsletters, etc. Most of the discounted coupons reach to consumers by advertising companies, which publish many fliers as the additional page. In the study area, 28.13 per cent surveyed SMEs adopted this sales tactic to pull up the consumers. The percentage of the small enterprises using this strategy was found to be little more, i.e., 31.25 per cent, as compared to that of the medium enterprises, i.e., 25.00 per cent (Figure 7).

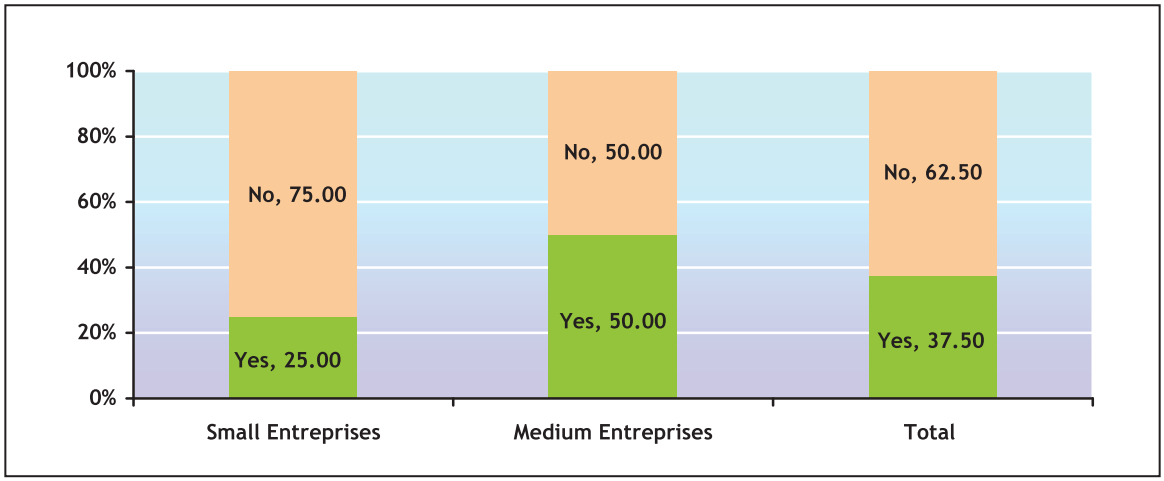
Figure 7: Percentages of SMEs using the Sales Tactic 'Distributing Discounted Coupon'



5.2.8 Giving Special Discount

The SMEs give special discount to the consumers when they buy huge amount of the products. This is one of the sales tactics to pull large number of consumers to buy the products. The study reveals that 37.50 per cent of the total SMEs were following the above strategy. Looking to the comparison of small and medium enterprises, it is found that the percentage of small enterprises using this tactic was 25.00 as against 50.00 per cent in case of medium enterprises (Figure 8).

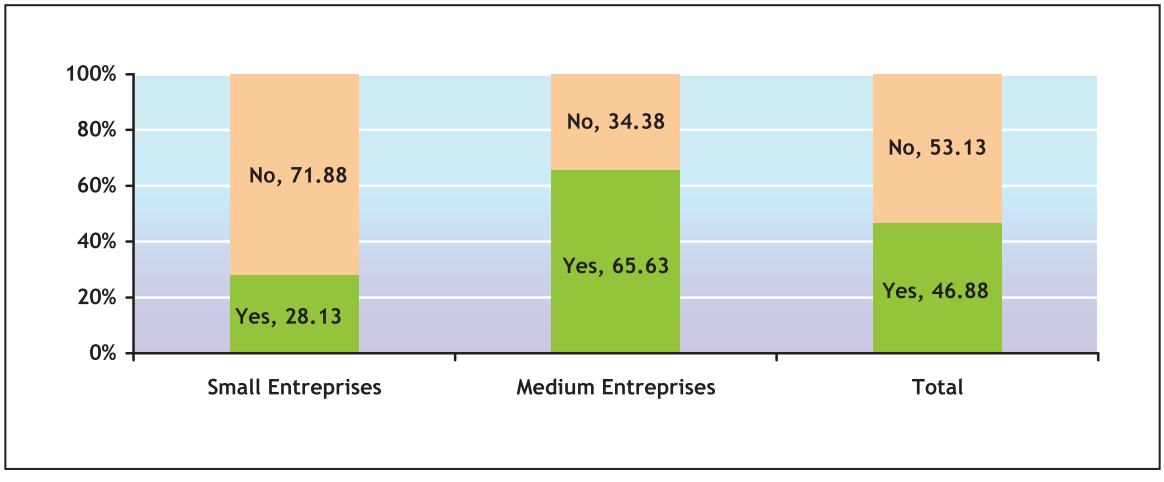
Figure 8: Percentages of SMEs using the Sales Tactics 'Giving Special Discount'



5.2.9 Providing Incentive Prize

Incentive prize is given to the final consumers by the enterprises as the additional benefits in the order to convince them to buy the products of the concerned enterprises. It can convince the customers to buy the products even if they do not have the demand for the products. These types of prizes mostly come in the same packet of the product. In total, 46.88 per cent SMEs were accounted for using the above sales tactic in the study area. But only 28.13 per cent small enterprises provided this sales incentive to the consumers, whereas, the percentage of medium enterprises following incentive prize sales tactic was as high as 65.63 (Figure 9).

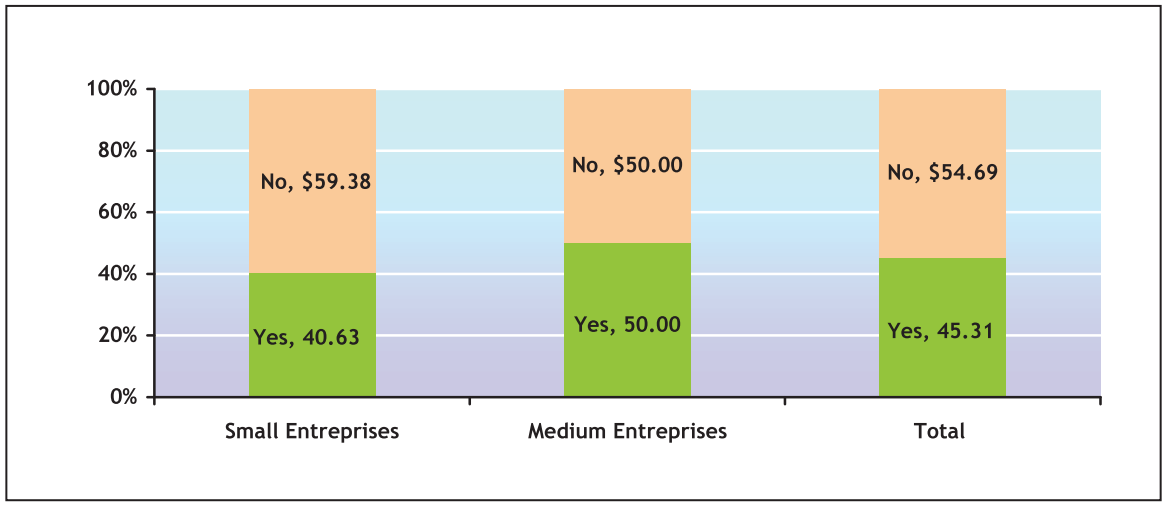
Figure 9: Percentages of SMEs using the Sales Tactic 'Providing Incentive Prize'



5.2.10 Providing Sample Products

In order to promote the sell of new products, many enterprises provide sample products at free of cost to the users, so that, the user can know the quality of the products after testing and finally are motivated to buy the products. This sales tactic was followed by 45.31 per cent SMEs with 40.63 per cent small enterprises and 50.00 per cent medium enterprises in the study area (Figure 10).

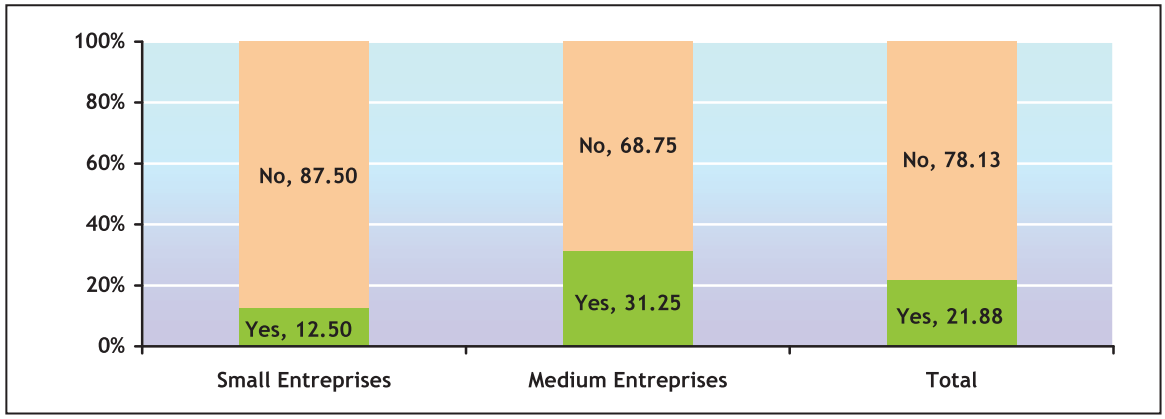
Figure 10: Percentages of SMEs using the Sales Tactic 'Providing Sample Products'



5.2.11 Providing Compound Products

Providing compound products is a kind of sales promotion by the enterprises in the study area. When the customer buys a product, another related product/products he/she gets free. These products sometimes are kept in one packet. Some enterprises write the names of free products on the packet of the concerned product, and when the customers buy the product, the sellers give the related free products to the customer. For this type of sales promotion, the enterprises also make the advertisement on the availability of compound products through radio, television, newspaper, etc. The percentage of SMEs using the above strategy was very less, i.e., 21.88. Compared to the medium enterprises (31.25 per cent), the percentage of small enterprises following this strategy was only 12.50 in the study area (Figure 11).

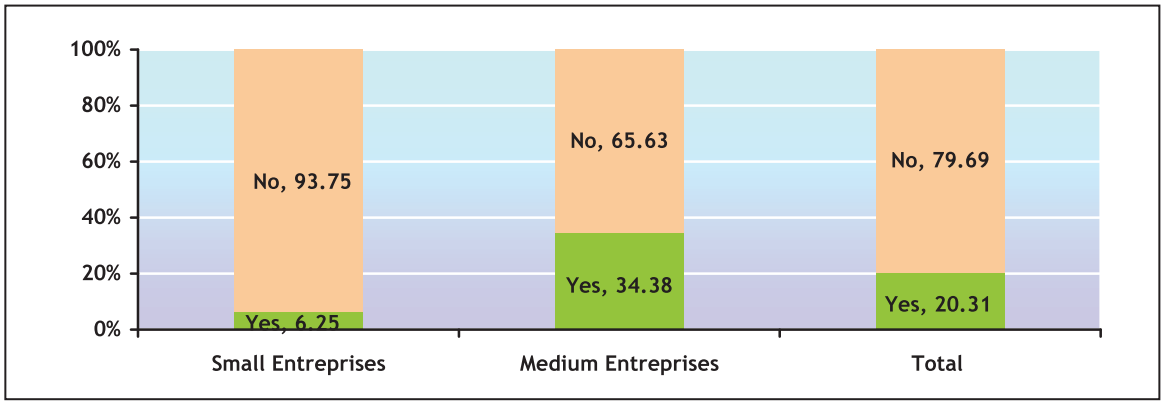
Figure 11: Percentages of SMEs using the Sales Tactic 'Providing Compound Product'



5.2.12 Making Lucky Draw

Lucky draw is the means to provide entertainment and invite the consumers to win prizes. The objective of this draw is to stimulate the users to increase their consumption, and provide the benefits of prizes of the lucky draw. In the present survey, the percentage of SMEs making lucky draw for the promotion of the product was 20.31. It was very less, i.e., 6.25 per cent in case of small enterprises, whereas, 34.38 per cent medium enterprises made the lucky draw to promote the products in the study area (Figure 12).

Figure 12: Percentages of SMEs using the Sales Tactic 'Making Lucky Draw'



The analysis on the push and pull sales tactics of the SMEs shows that both small and medium enterprises were using different kinds of push and pull sales tactics in the study area. But mostly more percentage of medium enterprises was following different push and pull sales tactics as compared to small enterprises. Except the sales tactics - 'sponsoring the equipment for product display' and 'distributing discounted coupon', in all the other 10 push and pull sales tactics cases, the percentage of medium enterprises using these sales tactics was more than that of the small enterprises. Thus, the small enterprises were at a lower level in applying the professional push and pull sales tactics as compared to medium enterprises in the area under survey.

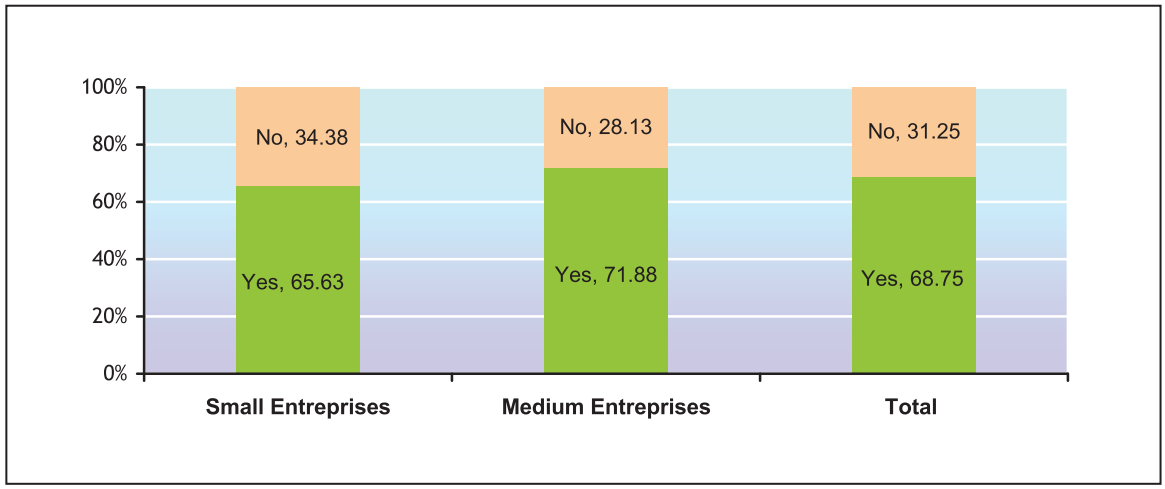
5.3 Creation of Activities and Participation in Events

In the study area, the surveyed SMEs were found to be using the sales strategies like participating in the trade fair, joining in the weekend market of the government, organizing consumer meeting, inviting customers to join in activities and special events, distributing leaflets, using mass media for advertisement of products, conducting advertising campaign, making direct marketing, selling through agent or distributor, providing product warranty, creating website for advertisement, giving word of mouth, making field visit for customers, displaying information or photographs about production and providing consumer newsletters to the members or regular customers. Some of the important sales strategies relating to the above aspects are:

5.3.1 Participating in Trade Fairs

In order to make the product popular and increase the sales, the small and medium enterprises participate in different trade fairs. The percentage of SMEs who participated in the trade fairs in the study area was 68.75. The small enterprises participating in the trade fairs were little low, i.e., 65.63 per cent as compared to the percentage of medium enterprises, i.e., 71.88, participated in the trade fairs (Figure 13).

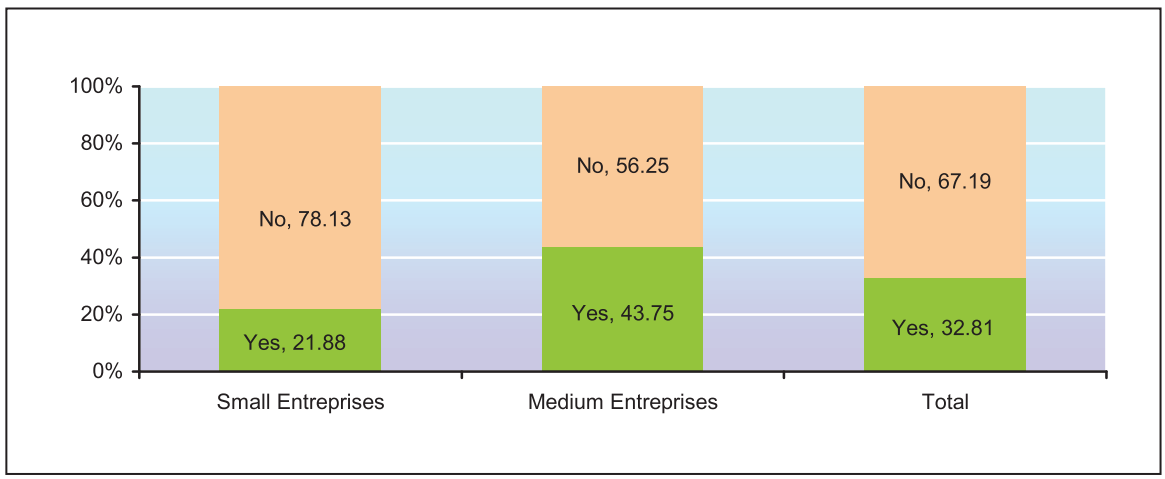
Figure 13: Percentages of SMEs using the Sales Tactic 'Participating in Trade Fair'



5.3.2 Distributing Leaflets

Distributing leaflets by the SMEs for the sales promotion of their products was not much popular in the study area. Out of 64 surveyed SMEs, only 32.81 per cent of them distributed leaflets for promoting their sales. The percentage of small enterprises using this sales tactic was smaller, i.e., 21.88, than that of the medium enterprises, i.e., 43.75 (Figure 14).

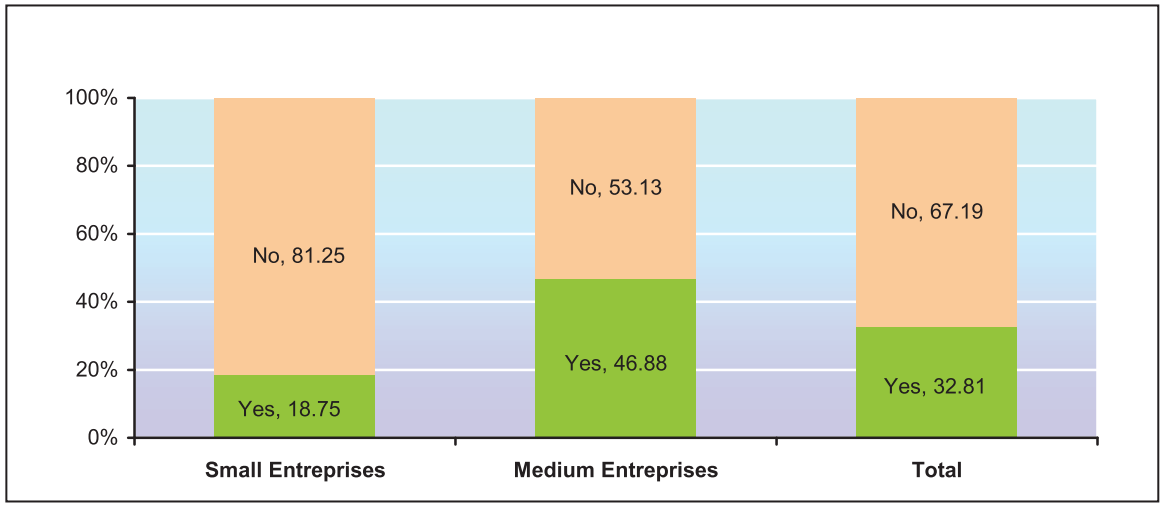
Figure 14: Percentages of SMEs using the Sales Tactic 'Distributing Leaflets'



5.3.3 Advertorial and Press Release through Mass Media

Mass Media, such as radio, television and newspaper plays important role for the advertisement of the products of the companies. In this respect, the companies spend less money for advertisement in the form of advertorial and press release through mass media in order to make their products popular. The percentage of SMEs having the above sales tactic in the study area was 32.81 with 18.75 per cent for small enterprises and 46.88 per cent for medium enterprises (Figure 15).

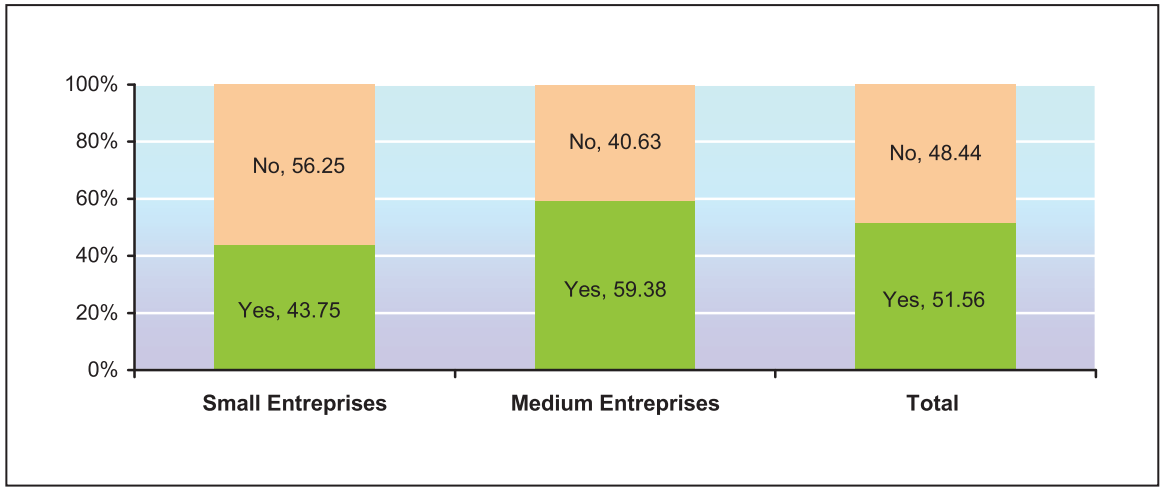
Figure 15: Percentages of SMEs using the Sales Tactic 'Advertorial and Press Release through the Mass Media'



5.3.4 Conducting Advertising Campaign

For the advertisement of the products, many companies make the advertising campaign, i.e., the thematic campaign of advertisement for building brand image of the product, and the tactical campaign of advertisement for stimulating and increasing the sales volume. In the study area, in total, 51.56 per cent SMEs made the advertising campaign to support their sales. In case of small enterprises, 43.75 per cent of them followed this sales tactic, whereas, 59.38 per cent medium enterprises had the same sales tactic during the time of study (Figure 16).

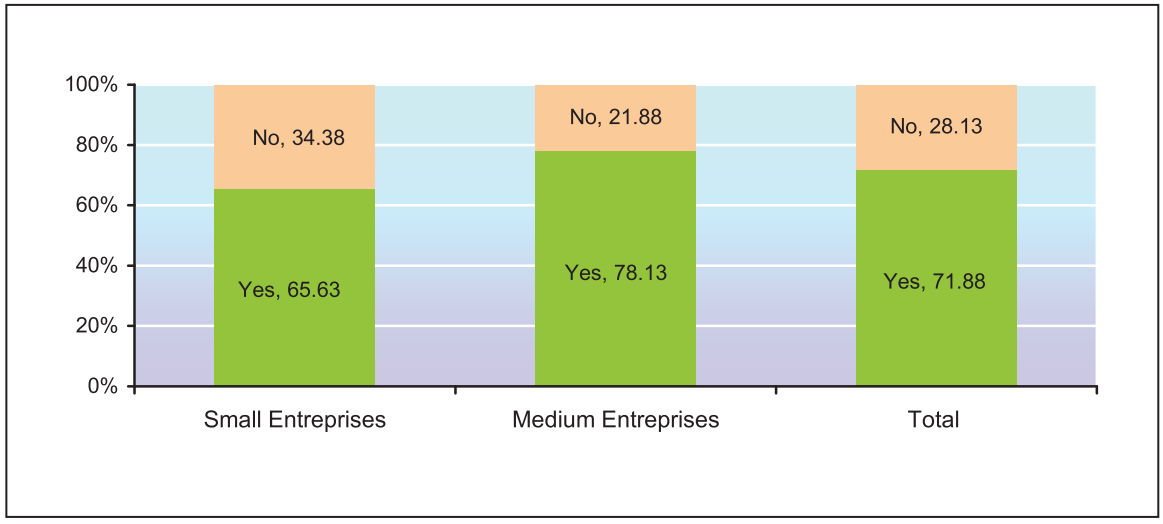
Figure 16: Percentages of SMEs using the Sales Tactic 'Conducting Advertising Campaign'



5.3.5 Making Direct Marketing

Direct marketing of the products was found to be very popular among the enterprises under survey. On the whole, 71.88 per cent of the total surveyed SMEs were making direct marketing for the sales of their products. The percentages of respective small and medium enterprises having the above sales tactic were 65.63 and 78.13 (Figure 17).

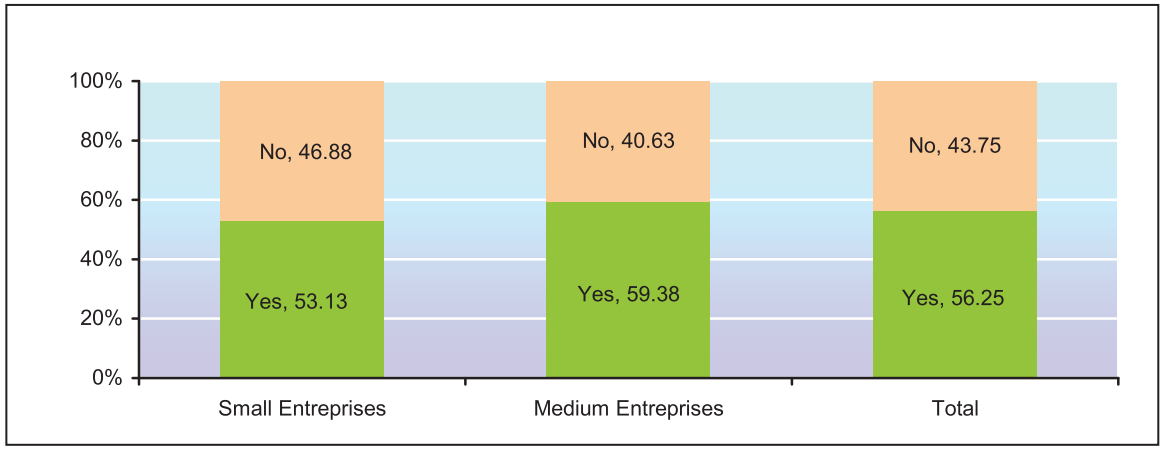
Figure 17: Percentages of SMEs using the Sales Tactic 'Direct Marketing'



5.3.6 Selling through Agent or Distributor

The enterprises follow different ways to sell their products. Some enterprises directly sell the products in the market, some sell through agents or distributors and some follow the above two practices at the same time to sell the products. In the present survey, from among the 64 selected enterprises, 56.25 per cent sold their products through agents or distributors. Similarly, 53.13 per cent small enterprises and 59.38 per cent medium enterprises had their sales through agents or distributors in the study area (Figure 18).

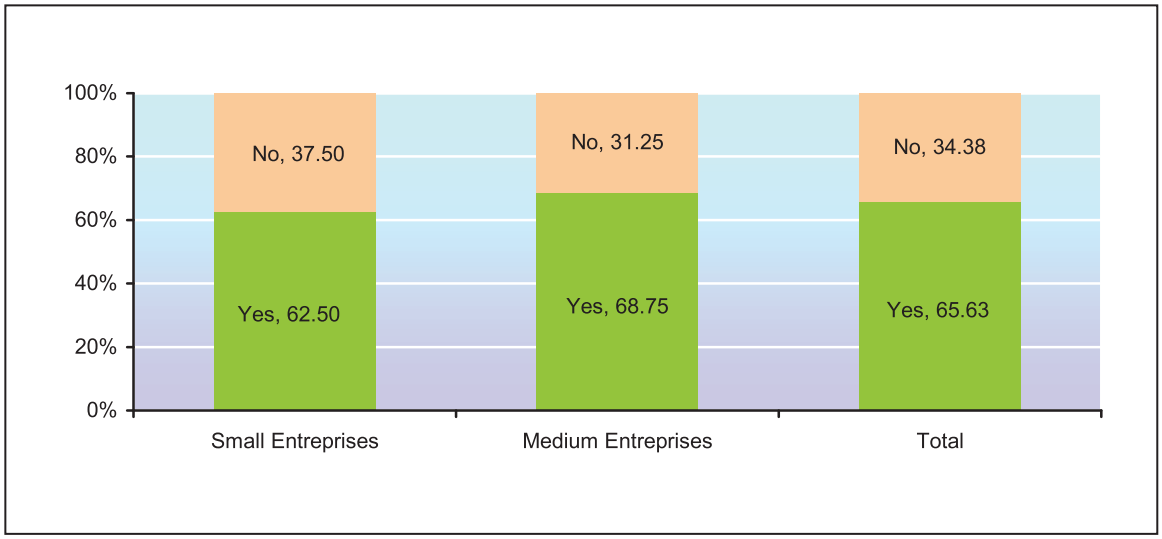
Figure 18: Percentages of SMEs using the Sales Tactic 'Selling through Agent or Distributor'



5.3.7 Providing Product Warranty

In order to build confidence among the customers, many enterprises provide warranty on the quality of the products, so that, the customers do not hesitate to buy the products. The study found that 65.63 per cent of the total SMEs provided product warranty to the customers. The percentage of small enterprises following this sales tactic was little less, i.e., 62.5, as against 68.75 per cent in case of medium enterprises (Figure 19).

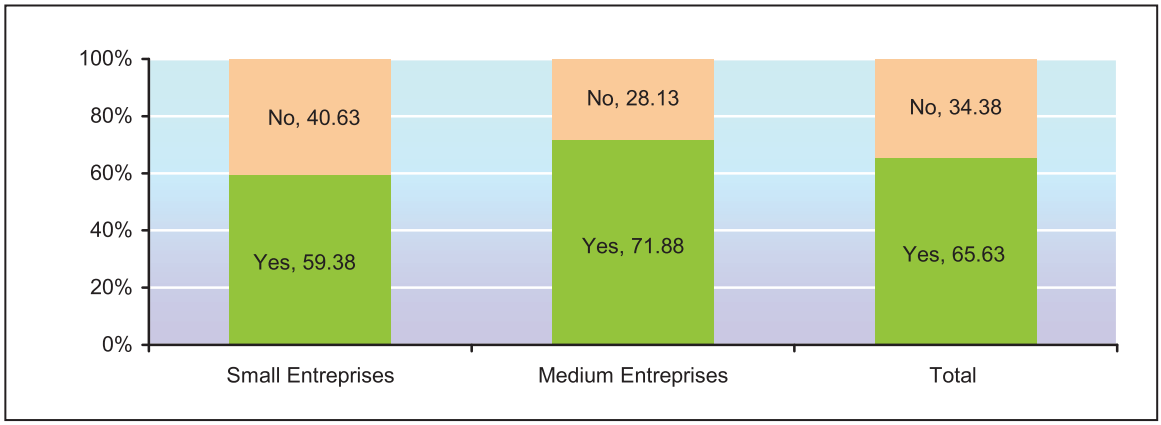
Figure 19: Percentages of SMEs using the Sales Tactic 'Providing Product Warranty'



5.3.8 Satisfying Customers for Word of Mouth Advertisement

Mostly the enterprises want to satisfy customers by producing better quality, better design, and nice colour products with competitive prices. Once the customers are satisfied with the products of the enterprises, they motivate their relatives and friends to buy the products of these companies. This is called as word of mouth advertisement. For this type of advertisement, the enterprises are not required to spend money. The enterprises can create these kinds of activities for their product image loyalty as well. The above sales tactic was followed by 65.63 per cent SMEs with 59.38 per cent small enterprises and 71.88 per cent medium enterprises (Figure 20).

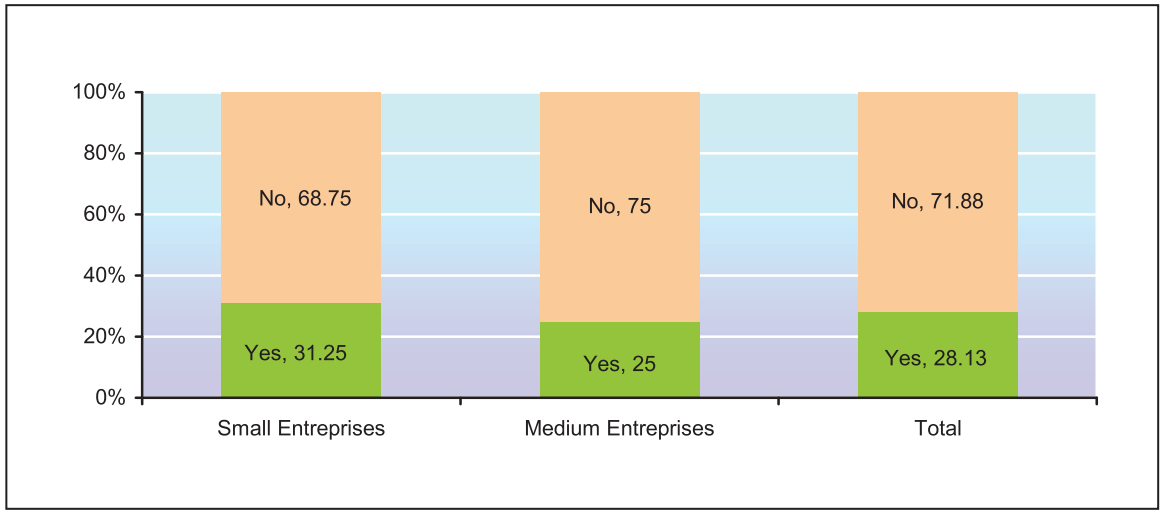
Figure 20: Percentages of SMEs using the Sales Tactic 'Satisfying Customers for Word of Mouth Advertisement'



5.3.9 Facilitating Field Visit for Customers

Facilitating occasional or regular fields visit for customers is done by some enterprises in order to build confidence among the users on their products by showing the detail process of the production. The above sales strategy was followed by 28.13 per cent of the total number of SMEs surveyed. Further, the percentages of small and medium enterprises using the above sales tactic were found to be 31.25 and 25.00 respectively (Figure 21).

Figure 21: Percentages of SMEs using the Sales Tactic 'Facilitating Field Visit for Customers'



Thus, the analysis on the creation of activities and participation in events shows that out of the nine sales strategies mentioned in this respect, besides sale strategy - 'facilitating field visit for customers' in the other eight sales strategies, the percentage of medium enterprises using these strategies was more as compared to that of small enterprises.

5.4 Incentives for Sales Staff

Providing incentives to the sales staff is an important strategy of the enterprises to increase their sales. Because the sales staffs become motivated after receiving the incentives and they try their best to increase the sales of the enterprises. In order to motivate the sales staff, the SMEs in the study area provided the incentives like giving bonus, promoting the staff in his/her job, giving commission, providing tour package, providing training, giving certificate of excellence, increasing the salary, giving gift/prize and providing health care/health insurance services to the staff. The most important incentive was found to be giving bonus as 81.25 per cent surveyed SMEs provided this benefit followed by promoting the staff (53.13 per cent), giving commission (46.88 per cent) and providing tour package (35.94 per cent). With regard to small enterprises, 71.88 per cent provided bonus, 43.75 per cent gave the commission, 31.25 per cent provided tour package, and 28.13 per cent gave the promotion to the staff. Compared to small enterprises, the percentage of medium enterprises providing incentives to the staff was found to be higher. The percentages of medium enterprises providing the incentives, such as bonus, promotion in job, commission and tour package were 90.63, 78.13, 50.00 and 40.63 respectively (Table 10).

Table 10: Distribution of Small and Medium Enterprises as per the Type of Incentives Provided by them to the Sales Staff

Type of Incentive	Small Enterprises		Medium Enterprises		Total	
	Number	%	Number	%	Number	%
Bonus	23	71.88	29	90.63	52	81.25
Promotion in job	9	28.13	25	78.13	34	53.13
Commission	14	43.75	16	50.00	30	46.88
Tour package	10	31.25	13	40.63	23	35.94
Provision training	2	6.25	10	31.25	12	18.75
Excellence certificate	2	6.25	4	12.50	6	9.38
Increase in salary	0	0.00	1	3.13	1	1.56
Health care/ Health insurance	0	0.00	1	3.13	1	1.56
Provision of gift/ prize	3	9.38	0	0.00	3	4.69
Total	32	100.00	32	100.00	64	100.00

Note: Total refers to numbers of small and medium enterprises surveyed.
Source: Own Survey.

6. Conclusion

Both small and medium enterprises were flexible on their sales strategies in order to compete with each other in the market. During the special periods, significant differences were found in the uses of sales strategies like 10 per cent discount, 20 per cent discount, 30 per cent discount, 40 per cent discount, 50 per cent discount, buy one and get one free, and buy one and get the second one in half price, by the small and medium enterprises. Mostly, the percentages of medium enterprises using push and pull sales strategies, and the sales strategies related to creation of activities and participation in events and incentives to sales staff were more as compared to small enterprises. The important push and pull sales tactics used by the SMEs in the study area were: sponsoring the equipment for product display, trading off the old products before launching the new products, providing advertising support, providing sample sales materials and tools, distributing discounted coupon, giving special discount, providing incentive prize, making lucky draw, etc. The sales strategies used by the SMEs with regard to creation of activities and participation in events were: participation in trade fairs, distribution of leaflets, advertorial and press release through mass media, advertising campaign, direct marketing, sale through agent or distributor, provision of product warranty, word of mouth advertisement through the satisfied customers and facilitation of field visits for the customers. On the whole, medium enterprises were better off in using different sales strategies in the study area compared to the small enterprises.

References

Acharya, Sarthi (2002). *Marketing Strategy and Problems.* Cambodia Development Resource Institute, Phnom Penh, Cambodia.

ADB (2006). *Cambodia Small and Medium Enterprise Development Program.* Report on Tranche Release, Phnom Penh, Cambodia.

Afzal, Honey (2007). *E-commerce Adoption and Critical Success Factors of E-commerce in*

SMEs in Iran. Lulea University of Technology, Sweden.

Barry, H. and Milner, B. (2002). SMEs and Electronic Commerce: A Departure from the Traditional Prioritization of Training. *Journal of European Industrial Training*, Vol. 25(7), UK, pp. 316-326.

Brown, Shamus (2008). *Sales Strategy Techniques, Industrial EGO Sales.* Grass Valley, USA.

CCC (2005). *Product and Marketing*. Design Centre of the CCC, Phnom Penh, Cambodia.

CDC (2002). *Socio-Economic Development Priorities and the Official Development Assistance Needs*. Phnom Penh, Cambodia.

CDRI (2002). *Marketing Strategy and Problem*. Cambodia Development Resource Institute, Phnom Penh, Cambodia.

CMM (2007). *Industrial Spending in Cambodia Market*. Phnom Penh, Cambodia.

Economics Watch (2007). *Summary of Cambodia Economics Profiles*. Economic Institute of Cambodia. Phnom Penh, Cambodia.

FCB (2007). *Consumer Insight and Consumer Product Enterprises*. Phnom Penh, Cambodia.

FCB Cambodia (2006). *Strategy: Market Review, Power Purchasing and Investment in Cambodia*. FCB Research Department, Phnom Penh, Cambodia.

Hill, R. and Stewart, J. (2000). Human Resource Development in Small Organization. *Journal of European Industrial Training*, Vol. 24, UK, pp. 105-117.

IFOAM (2003). *Developing Local Marketing Initiatives for Organic Products in Asia*. International Federation of Organic Agriculture Movements (IFOAM), Germany.

Industrial Directory (2007). Cambodia Chamber of Commerce. Phnom Penh, Cambodia.

Jobber, David (1997). *Selling and Sales Strategy.* Linacre House, Jordan, Oxford OX2 8DP, Britain, UK.

Kardestani, Arash A. (2008). *A Conceptual Framework for Marketing Strategy in SMEs Regarding Export Performance as an Independent Variable.* A Case of Iran, Lulea University of Technology, Sweden.

Kawasaki, Guy (2007). *What Are Your Sales Tactics.* Japan, Retrieved from http://blog.gcase.org/archives/201.

Kotler, Phillip (2006). *Marketing Management*, Prentice Hall, USA.

Lim, Guan H. et al. (2000). *SMEs' Marketing Entry Strategy: Substitution Instead of Niching*. National University of Singapore, Singapore, Unpublished Dissertation.

Manning, L. Gerald and Barry L. Reece (2004). *Selling Today Creating Customer Value.* Pearson Education, New Jersey, USA.

Miller, N.L. and Besser, T.L. (2000). The Importance of Community Value in Small Business Strategy Formation: Evidence from Rural Lowa. *Journal of Small Business Management*, USA, pp. 68-85.

Nordstrand, Tina and Maria O. (2005). *Standardization Vs. Adaptation of the Marketing Program for International Markets.* Case Study of Liko Company, Lulea University of Technology, Sweden.

Rana, Farina A. (2004). *Determine the Differences Between Sales Strategies of Small Business in Barnwell.* South Carolina, US and Murree, Punjab, Pakistan, Preston University, USA (Unpublished Dissertation).

Raymond, L. (2001). Determinants of Website Implementation in Small Business Internet Research. *Electronic Network Applications and Policy*, Vol. 11, No.5, UK, pp. 711-422.

Reynolds, W., Savage W. and Williams, A. (1994). *Your Own Business: A Practical Guide to Success*. Sydney: ITP Thomas Nelson, 2/e.

Sam, H. (2007). *Employing Effective and Economical E-marketing Strategies, Tools and Techniques for SMEs*. SMEs Marketing Strategy, USA.

Scupola, A. (2001). *Adoption of Internet-Based Electronic Commerce in Southern Italian SMEs.* 1st Nordic Workshop on Electronic Commerce, Halmstad, Sweden.

Sen, H. (2004). *Rectangular Strategy: For Growth, Employment, Equity and Efficiency*. Phnom Penh, Cambodia.

SME Secretariat (2005). *SME Development Framework*. Phnom Penh, Cambodia.

SME Secretariat (2006). *Small and Medium Enterprise Annual Report*. Phnom Penh, Cambodia.

Tetteh, E. and Burn, J. (2001). *Global Strategies for SME-Business: Applying the SMALL Framework.* Logistics Information Management, UK, pp. 171-180.

Westhead, P. and Storey, D. J. (1996). Management Training and Small Firms Performance: Why is the Link So Weak?. *International Small Business Journal*, Vol. 14, UK, pp. 13-24.

Wilkinson, T.S. and Bhandarkar, P.L. (2003). *Methodology and Techniques of Social Research.* Himalaya Publishing House, India.

WTO (2006). *Cambodia and WTO*, Retrieved from
<www.wto.org/english/thewto_e/countries_e/cambodia_e.htm><www.wto.org/english/thewto_e/countries_e/cambodia_e.htm><www.wto.org/english/thewto_e/countries_e/cambodia_e.htm>
www.wto.org/english/thewto_e/countries_e/cambodia_e.htm>

Yellow Pages. Cambodia (2007). Member of Global of Super Pages, Published Under the Contract to the Ministry of Posts and Telecommunications by IQ, Interquess Enterprise Co., Ltd., Phnom Penh, Cambodia.

Zahorsky, Darell (2007). *Sales Strategy Creates a Competitive Advantage, USA*, Retrieved from www.sbinformation.about.com/cs/sales/a/aa111002a.htm.

Zhu, Ruby (2006). *Sales and Marketing Strategies for SMEs in The Mainland*. Hong Kong General Chamber of Commerce, Hong Kong, China.

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Negotiation at National and International Levels: Restrictive and Facilitating Factors in Global Business

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ABSTRACT

This theoretical essay discusses various aspects, through documental research and professional experience, dealing with the influence of negotiation at national and international levels, specifically in the exportation, the facilitating and restrictive factors in global business. From the documental research, the types of negotiations taking place in a term of trade, where communication between the parties is extremely important factor are identified. The professional experience points to a lack of qualified professionals in the area of Foreign Trade, who have little knowledge of all nuances of the intrinsic process of exporting. In this sense, investments in education, both at the primary level, in order to educate citizens with character and ethics, and investments at secondary level, aiming to improve the basic English or Spanish to the students at second level, are fundamental for Brazil to achieve the increase in exports, as advocated by the national government. Similarly, the Brazilian universities have vital responsibility to train managers of international negotiations, with personal skills, and knowledge on linguistic and technics. Cultural differences must be respected and understood, where the negotiator can use specific methods and processes of decision-making. The personal identities of negotiators are identified with their culture of origin. The most salient personal characteristics are interpersonal skills and a cooperative or competitive profile, skills of agility, building relationships, adapting to different situations of each negotiation and credibility. As the negotiation taking place in practice, the interaction between people who are negotiating issues requires mutual respect and cultural specificities, and the use of strategies of attack and counterattack.

Key Words: National Negotiation, International Negotiation, Exportation, Negotiators´ Profile

1. Introduction

In the XIV B.C., an unsuccessful attempt to establish monotheism in ancient Egypt, can be rescued from the pages of human history as one of the earliest examples of non-observance of negotiation practices, more specifically religious and political negotiation. The fate of Pharaoh Amenhotep IV, also known as Akhenaten, might

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have been another....

The trade surplus is the goal of any government that is committed to the economic development of that country. Through imports it is possible to purchase machinery and technology that can add value to products, making them competitive in the global sphere. In return, it is needed to export a little more than that is imported, to ensure a positive balance in the trade balance and reassure international investors. Negotiations, both domestically and internationally, are essential to ensure the maintenance of the above scenario.

According to Cateora (1996), data collected in 1993 in the U.S. showed that, in many cases, sales to foreign trade are more profitable than those made domestically. The task of cultural adjustment is, perhaps, the most challenging and important when confronting international marketers from different countries. They must adapt their marketing efforts to cultures in which they are unfamiliar. According to Kotabe and Helsen (2000), since 1945 global exportations are expanding above the rate of growth of world economy. In this context, we seek to discuss facilitating and restrictive factors in global business, specifically the influence of trading at national and international levels, as well as in exportation.

Initially, the paper discusses conceptual aspects of negotiation, by mentioning steps to a successful negotiation. National and international negotiations, in general, as well as exportation in particular in business are discussed in the next section. Subsequently, the culture and negotiation are described, followed by negotiation in practice, where mention is made to the intelligence and counter-intelligence maneuvers. Then we present some cases of success and failure in the negotiations that culminates with the concluding remarks.

2. The Negotiation at National and International Levels and Exportation

2.1 Conceptual Aspects related to Negotiation

Seeking for a conceptualization of what is, effectively, a negotiation, Barnes (2002) cites that it is an exchange between people or organizations. In a broad sense, negotiating is to bargain, make deals, to reach an understanding through an effective exchange of information.

Often in the academic environment, it can be heard comments from the nebulous and tenuous line that permeates the negotiation of bargaining and persuasion. Although the bargain may be similar to negotiation, the way in which it is accepted may be distorted, always depending on which country negotiation is conducted (Steele, 1991).

Also according to Barnes (2002), negotiation, as is popularly said, is steeped in negativity due to the fact that often it is not started because of fear of another part of success in outcome of negotiations. In an interesting paper published by Harvard University (1996, p. 3-5), it is imperative to highlight some particularities that permeate the general negotiation, which are described below.

"While preparing yourself beforehand is a good idea in most endeavors, in negotiating it's critical, lest you be immediately overwhelmed by the other side. You will need to prepare on two fronts: getting the right attitude, and gathering information on what your interests are and what the other party's might be.....

You walk in, shake hands, sit down, and you smile. From the first face-to-face contact with the people on the other side, and indeed, in any conversations that may precede the formal negotiation, try to establish as good a person-to-

person relationship as possible. You want everybody's energies to go into analyzing the issues and arriving at an imaginative, mutually beneficial solution, not into posturing, bullying, feeling offended, or any other state of high dudgeon that may get in the way of a reasonable outcome.....

Much of the emergining wisdom on how to proceed through a negotiation can be distilled into a four-sentence, only semifacetious injunction: To move matters along, ask a question, even in response to a question. If you can't ask a question, fall silent and wait for the other side to step in to end the awkward pause. Only rarely, perhaps to keep up the human side of things, should you make an observation or an assertion. And then immediately tag on a question.....

As soon as the framework for a possible agreement emerges, ever so gently begin herding the doggies in that direction. Ilich recommends a technique he calls funneling: Remind the other side that this particular issue has been settled, refresh their recollection of what you agreed on, refuse to reopen it, and move on to what's still open."

Negotiation, even though it is constantly changing, has remained the same in its essence. This is the statement of Shell (2002). The new economy has accelerated processes and facilitated the means of establishing a negotiating in distance, with the advent of new technologies, in particular the internet. In negotiation, the strategy should consider the situation where the parties are and their personalities (Shell, 2002).

2.1.1 Phases of a Good Negotiation

According to Barnes (2002), to achieve a successful negotiation, the following steps are followed:

i. In the first phase, for demystifying the negotiation, you should have a positive view of the negotiation.
ii. In the second phase, comprising your own opinions and those of others, consider the fact that the negotiations are based on needs, and be necessary to identify and understand your own needs and those of the other party.
iii. The third stage is learning to respect differences. The trader must put himself in the other part by respecting differences, and using certain words and behaviors.
iv. Negotiating with respect, wisdom and understanding is the fourth stage, where communication is essential in the form of body language, care, clarity, understanding and calm.
v. The fifth stage is doing your homework before negotiation. It is needed for mental preparation, intellectual and emotional thinking before the negotiation.
vi. The sixth phase is negotiating with firmness, fairness and impartiality. This includes the act of asking questions, affirmative statements, see the situation, hear, think and review the problem.
vii. In the seventh stage, to convert a change-maker to a champion, people in some cases should employ three phrases that neutralize challenging behaviors: "I agree", "I respect" and "I wish".
viii. The final stage is creating satisfaction with the outcome. The negotiation must be seen as a process and not as an isolated event. It is always a better win-win relationship.

2.2 National and International Negotiation: Facilitating and Restrictive Factors

Under the focus of international negotiations, cultural differences influence the negotiations directly. Cultures are different, so are the methods and processes of decision making in several countries (Sebenius, 2002).

We live in an era where not only the products must be flexible and adaptable to changing demands of global consumers, as well as people involved in the international negotiating process should be flexible enough to adjust their behaviors to the various ways in which different countries negotiate.

To avoid misunderstanding, international negotiators need to discard the assumptions of the country of origin, which will negatively influence the decision process, both formally and informally. In addition to negotiating with people, it should seek to influence the outcome of an organizational process, which may require different strategies and tactics among the three models suggested by Sebenius (2002): from top to bottom (the negotiators seek to interact directly with the boss, who makes the decision), consensus (agreement among the members) and the coalition in steps (a group that takes the form of winning coalition or obstructive). Also according to Sebenius (2002), besides considering the national culture, it is important to understand the complexities of organization that internalizes the other part, as well as to learn about the power structure and decision-making processes, which can differ from country to country.

Considering the broad sense that takes negotiation, Harvard Business Review (2002, p. 49) highlights:

> *"Negotiation informs all aspects of business life. Every interaction – with customers, with supliers, and even with partners and investors – involves some kind of negotiation. In fact, in some languages the same terms are used for both 'business' and 'negotiation'. But the costs of failure can be high."*

As to the differences in rules, the negotiatior may be trading in a country where decisions are made by a board and not by an individual who holds the authority to do so. A rough expression may demonstrate lack of interest, however, his personal interest may not match the warmth. Differences in behaviors are considered peculiar aspects, when a "yes" in Japan can spell a "not" (Steele, 1991).

According to Minervini (1991), in countries of Latin America, it is common to delay the negotiations. There is concern with the more pronounced form than with content in a conversation and hugs as much physical contacts are allowed. The countries such as France and Germany, do not use the first name in the business contacts. In Russia, hugs and kisses occur only among friends. In India it is not recommended to use the left hand to pass plates, business card, and other objects.

The seller/exporter has to understand the delimitation of the environment and its consequences, the social system, the trading system, religion or beliefs, the political system, the legal system, financial system and tax system and infrastructure and logistics in the areas of their business operations (Steele, 1991). A successful international negotiation involves the analysis on the factors that may be incurred in restrictive elements. The cost of internalization of products sold to that market may mean non-competitive prices for that country. Thus, import duties, non-tariff barriers, such as import quotas, excessive documentation, inspections, and the excessive anti-dumping policies need to be carefully observed during the negotiation process. The emergence of joint-venture has been motivated by overcoming these limiting factors to international business.

In Santa Catarina, a Brazilian state, exporting firms have difficulty in getting finance for production, as well as difficulty in buying raw materials. The last factor is damaging the enterprises' production programs, as well as affecting the timeliness of delivery of agreed quantity of products. The lack of information on foreign markets was also highlighted in a survey conducted by FIESC

(Industry Federation) and this is an important element barrier to exportations from Santa Catarina, followed by lack of resources allocated to international marketing. Again, the question arises: How to allocate more resources to international marketers when their training and skills are still so tiny, compared to the reality that the world market shows us? Efforts in providing proper education and training are essential for Brazil to boost its sales and design internationally.

2.3 Exportation: Facilitating and Restrictive Factors

All international trade negotiation brings with values, such as confidence, seriousness, responsibility and ethics. Therefore, it is essential to take responsibility for everything that the involved persons undertake to do, even if it incurs losses. Brazilian exports can grow sharply when its image can bring these values.

Exported products are solutions of problems for target markets, so post-sales services, technical assistance, international guarantee and supply of spare parts have been very valuable to ensure reliability of products sold and the country of origin. In a survey made by FIESC, some factors were pointed out by the exporting enterprises in Santa Catarina, as inhibitors of growth of exportations. The first refers to the prices of the products, which are uncompetitive in Santa Catarina. These high prices are caused by excessive taxes that are charged by federal, state and municipal governments. Another reason for high prices is high cost of inland freight.

The important factor highlighted by the research concerns is the logistics of transportation, especially the port sector. It is needed to invest in Brazilian port sector so that it is possible to dispose of production to world markets, with greater efficiency and lower costs. Exportation financing programs were more effective and exportation credit systems were also more efficient in the country.

In relation to factors that facilitate negotiations for exportation, it was found that the collection of non-cumulative COFINS (Brazilian tax) was a great motivation to exporters of Santa Catarina, since it eliminated the incidence of Cascading Social Contributions.

2.4 Negotiatior and its Personal Skills

Based on the premise, in a negotiation both the parties, involved must be addressed. Minervini (1991) suggests that it is necessary that the trader seeks to know what are the factors that will bring satisfaction to the other party.

Negotiations are, and always will be, the interpersonal skills. In cases of agreements or complex sales, there is no substitute for personal interaction, which forms a relationship and a trusting environment, that is essential during the time of negotiation (Shell, 2002). In negotiations, the interests are more important than positions, and justice becomes crucial. Shell differentiates himself from other trading gurus like Roger Fisher, William Ury and Howard Raiffa, considering the personality as an important variable in negotiation.

If the trader has a mutual status, he will consider a different view on the conflict and motives of the other party which does not happen in competitive profile. The cooperative negotiator, by focusing on the problem not the person, faced with a dilemma: often people are part of the problem (ibid).

Shell also believes that there is no single way to negotiate. What can be done is to use a tool of interpersonal relationship, based on social psychology, to be used according to convenience.

The negotiator must follow rules in international negotiations under three facets that is as an

observer, as individual participant in the environment and as a negotiator. The observer sees things through the eyes of a tourist. It is recommended to adjust to local manners demonstrating courtesy, respect and adaptation. The negotiator will ask about the desires and satisfactions of the other party. Although based on the same principles, negotiations in different countries take a course that depends more on the method of trading and indenting preferred and key factors that bring satisfaction to trading. Negotiations always reach stagnation if the problems or protocols are not recognized by the other party (Steele, 1991).

2.4.1 Negotiatior´s Profile

The trader profile will tend to be agile in the new economy, building relationships and establishing new business, whether domestic or international environment. There is no single profile of a negotiator. Because different situations require different types of traders. In sales, a good negotiator should possess characteristics, such as listening carefully and knowledge on how to build relationships (Shell, 2002).

The trader profile can be improved when the negotiator can get to know himself and his qualification are underused. In addition, it is needed to find a way to be more effective and be who really is. The credibility is the basis of negotiation where the other party needs to feel it while negotiating with another person (Shell, 2002).

2.5 Culture and Negotiation

Cultural identity is one of the most sensitive aspects in a negotiation. As the personal identities of negotiators are surrounded by the cultures to which they belong. The other party has to understand and respect to the culture of the person to which he belongs. Understanding of culture facilitates the understanding between the negotiators, and reduces miscommunication where the language can be a limiting factor. English is widely used as the language in international business (Shell, 2002).

2.6 Negotiation in Pratice

Starting from the theory to the practice of negotiation, it is crucial to consider the way in which the other party tends to consider certain elements or procedures based on his culture. The North America and Europe, for example, work in transactions, while most of the world works on the basis of relationships (Shell, 2002).

No differently, Fortgang et al. (2003, p. 67) state that:

> *"Experienced negotiators are generally comfortable in working out the terms of an economic contract: they bargain for the best price, haggle over equity splits, and iron out detailed exit clauses. But these same seasoned professionals often spend so much time hammering out the letter of the deal that they pay little attention to the social contract, or the spirit of the deal. So while the parties agree to the same terms on paper, they may actually have very different expectations about how the agreement will work in practice. Without their arriving at a true meeting of the minds, the deal they're signed may sour."*

Further, Fortgang et al. (2003, p. 68), draw attention to the consideration of relationships, which is as follows:

> "[...] *in a negotiation context, we define the social contract in terms of the partie's' expectations. This contract has two levels: The underlying social contract answers the question, What? (For instance, are we working out a series of discrete transactions*

or a real partnership? What is the real nature, extent, and duration of our agreement?) The ongoing social contract answers the question, How? (In practice, how will we make decisions, handle unforeseen, events, communicate, and resolve disputes?).”

This reinforces the assertion of Shell, where, in American literature, there is an example of how negotiations are based with more restrictions to the operational issues, giving little attention to relationships.

In negotiations, it is needed to identify with whom you will interact and the role of each one in this negotiation. Therefore, we seek to influence the organization through the people with whom they will interact (Sebenius, 2002).

To make an image of the other party, it is necessary to recognize some clues to know what kind of expectations will be meted. This is possible by identifying characteristics and behaviors, which provide the differentiation between individuals from one country to another. To make this assessment, it is needed to consider the following steps: selecting a country, describing adjectives that characterize the people of the country, describing the structure design of staff in relation to trading methods, reporting the tactics that the other party is likely to lend and, finally, reflecting the upcoming negotiations with a foreign party (Steel, 1991).

2.6.1 Intelligence Maneuvers

Some forms of persuasion are described by Williams and Miller (2002), who claim there are five styles of making the decisions. Those are as below:

i. Charismatic executives: They are easily attracted and fascinated by new ideas, can absorb large amount of information quickly, and tend to process the events in a visual way.
ii. Thinkers executives: They are decision makers, most difficult to understand and harder to persuade.
iii. Skeptical executives: They are very skeptical of all data, especially information that challenges their world-view.
iv. Followers executives: They would be equivalent to the case of law, i.e., they make decisions as decisions similar to the previous situations or the way they saw it is resolved by executives of their trust.
v. Controllers executives: They abhor uncertainty and ambiguity. These executives focus on the specific facts and mathematical analysis of an argument, and are repressed and driven by their fears and uncertainties.

With this, the authors argue that executives tend to make important decisions in a predictable way. The fact of knowing the preferences of the executives could help in predicting the outcome of negotiations during the decision-making.

2.6.2 Counter-Intelligence Maneuvers

In tough negotiations, where the counterpart is inflexible, it should be understood as the actions of the other party who make sense to her, which the other party really wants to negotiate. A certain amount of threat, even if not acted upon, brings some power. These threats make the rigid counterpart know that cannot be abused without suffering consequences (Shell, 2002).

In any negotiation, what is needed is to reach an agreement and avoid deadlocks. Thus, when facing an opponent seemingly competitive, negotiators are retreated to secure agreement (Field, 2003).

It is perceived that competitiveness brings some advantages. However, if the dealer acts believing

that the other party is terrible for their achievements, the negotiator will be more prone to back and encourage their aggressive behavior (ibid).

There are five tactics of counter-attacks:

i. Know your opponent: If the opponent's style is known tough sometimes to go into the first and direct attack can make your opponent retreat.
ii. Shorten the individual conversations: It is needed to override the power of intimidation from the other by reducing the contact time, leading most part of the process to other means (telephone or e-mail, for example).
iii. To plan in advance the answers and strategic moves: Prepare responses that alter the perception of the opponent.
iv. Find alternatives: To equip the various proposals by presenting alternative turns out of the priorities of the opponent.
v. Identify the best alternative: The desperation to close a deal weakens the bargaining power.

3. Cases of Success and Failure in Negotiation

3.1 Sierra Ventures: Venture Capital Enterprise

In a negotiation between the American Sierra Ventures (venture capital enterprise) and the Institute of Protein Research of Russia, before the collapse of the Soviet Union, Sierra Ventures sought to acquire rights to a process of biotechnology that would be revolutionary. After several successful negotiations between executives of the company and the institute, the Sierra Ventures found that several Russians ministers (who had their own objectives and divergent views) adopted and formalized the negotiation. This generated a number of obstacles that ruined the deal. Sierra Ventures could have been successful in implementing the final phase of negotiations if it had learned about the process of decision-making in Russia, i.e., Sierra Ventures was unaware of the role that each of the participants actually played the negotiation (Sebenius, 2002).

3.2 Pirelli: Italian Manufacture of Tires

Pirelli, the Italian tire manufacturer, tried to negotiate the acquisition of German rival, Continental Gummiwerke, claiming to have most of the stocks, a fact which approved the endorsement of Deutshe Bank and had the support of Gerhard Schröder (Then Prime Minister of Lower Saxony). Pirelli started from the premise that U.S. ownership of the majority of the stocks warrants to the purchaser control of the acquiree, which did not happen in Germany. What happened was that approval, and went through the board responsible for the management, was to pass by the shareholders, board of directors and employees (unions). The influence of these three groups can be significant and even an obstacle to the stocks of the majority shareholders of a company. Add to the fact that the workers' union elects half the members of the board. The deal was not completed while Pirelli had claimed the stocks control and relied on powerful allies (Sebenius, 2002).

3.3 LVMH: French Conglomerate of Luxury Brands

The large conglomerates, which use the services of the highest and well prepared specialists in international business, are not free from errors. In the case of LVMH (Louis Vuitton, Moet, Hennessy), a large French conglomerate of about more than thirty internationally renowned brands in their segments and top international group, U.S. lawyers said the group doing business in New York Stock Exchange could not substantially increase its base of shares without shareholders' approval. Based on this premise, LVMH acquired 35 per cent of Gucci, in a public offering. The LVMH group

erred in disregarding the rules applicable to shares of companies based outside the U.S. and are different due to the Gucci deal in New York Stock Exchange but the charter was obtained in the Netherland and headquartered in Florence, Italy. Gucci's lawyers, knowing this peculiarity, stopped trading. Gucci gave 20 per cent of new shares to its employees in transactions similar to stock purchase plans for U.S. officials and offered 42 per cent of additional shares to a rival, the French group LVMH, leaving it in an uncomfortable position of minority shareholders (Sebenius, 2002).

4. Concluding Remarks

Negotiation can be a terms of trade or the communication between the involved persons. Cultural factors are taken into account during the decision making process. To conduct a good negotiation, understanding the culture of the opponent are very much necessary as the negotiators' personal identities are rooted through their cultures of origin.

Personal characteristics include the interpersonal skills of the negotiators, and the cooperative and competitive profile are the styles that can facilitate or hinder a negotiation. The traders' profile should consider agility, building relationships, adapting to different situations and credibility of each negotiation.

The successful businessman of the 21st century is globally aware of own objectivity, tolerance for cultural differences, knowledge of cultures, history and potential global market, and meet global trends, social and economic policies. A simple handshake can mean success or failure in a negotiation, whether national or international.

References

Barnes, G. P. (2002). Negociando com sucesso: deixando que outras pessoas o sigam. São Paulo: Amadio.

Cateora, Philip R. (1996). *International Marketing***.** 9th ed. Boston, Massachussets: Irwin/McGraw-Hill.

Cateora, Philip R., GRAHAM, John L. (2001). *Marketing International.* Rio de Janeiro: LTC.

FIELD, Anne. Sem medo do inimigo. Harvard Management Update. (Newsletter from Harvard Business School Publishing). HSM Management**.** São Paulo, mai/jun 2003, n. 6, circula com HSM Management n. 38.

Fortgang, Ron S., Lax, David A., Sebenius, James K. (2003). Negotiating the spirit of the deal. *Harvard Business Review*. Boston, p. 66-75.

Gomes, Paulo Miranda et all. (1977). *História Geral das Civilizações.* 10ª edição. Belo Horizonte, Livraria Lê.

Harvard Business Review (2002). Negotiating without a net. A conversation with the NYPD's Dominick Misino. *Harvard Business Review.* Boston, n. 10, vol. 80, p. 49-54.

Harvard University (1996). The only four-page guide to negotiating you'll ever need. *Harvard management update.* (A newsletter from Harvard Business School Publishing). New York.

Kotabe, Masaaki; Helsen, Kristiaan. Administração de marketing global**.** São Paulo: Atlas, 2000. Traduzido para o português de: *Global Marketing management;* Copyright 1998, John Wiley & Sons, Inc.

Minervini, Nicola. O Exportador: como iniciar e conduzir sua empresa a uma estratégia sólida e segura de exportação. 1a edição. S.P.:Makron Books do Brasil, 1991.

Revista Sem Fronteiras, n. 08, ano I, Janeiro 1999, pág. 7.

Sebenius, James K. Como negociar através das fronteiras. HSM Management, São Paulo, n. 34, p. 44-52, set./out. 2002.

Shell, Richard. Na hora de negociar, as pessoas são o problema e a solução. HSM Management, São Paulo, n. 31, p. 42-46, mar./abr. 2002.

Steele, Paul. et al. Negócio fechado! A arte da negociação. São Paulo: Makron Books, cap. 11, p. 139-158, 1991.

Vasquez, José Lopes. Dicionário de termos de comércio exterior. 1a edição São Paulo: Atlas, 2001.

Williams, Gary A., Miller, Robert B. Mude a forma de persuadir. HSM Management, São Paulo, n. 35, p. 120-130, nov./dez. 2002.

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Impact of Community Fish Refuge on the Economic Conditions of the Members in the South-Eastern Region of Cambodia

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ABSTRACT

Cambodia, with an estimated two million hectares of lowland rice fields, is potentially very productive in rice field fisheries through a system of Community-managed Fish Refuges (CFR). It is assumed by the Mekong River Commission (MRC) that the rice field fisheries produce naturally on an average 100 kg/ha/year of many indigenous fish species. This is very important for the fish consuming community where fish provides up to 81.5 per cent of the total animal protein intake of the people. The total fish production from rice field fisheries is estimated as 200,000 tons per year, which contributes very significantly to improving the livelihoods of the rural indigents and the poor. Managing the rice field fisheries in a sustainable manner through a system of CFRs is one possible and promising option for the future of Cambodian rice field fisheries.

Against this background, an attempt is made in this study to analyze Community Fish Refuge (CFR) system in the country in general and South-Eastern region in particular along with assessing the change in fish production in the areas where CFRs have been introduced and the impacts of CFRs on the economic conditions of the members. The study found out that Community Fish Refuges played a very important role in improving the livelihoods of the rural poor farmers at the community level in terms of increase in fish production, income generation, expenditure, saving and asset position. Those aspects when compared before and after the formation of CFRs, signify the positive contribution of CFRs on the livelihoods of the poor farmers in the study area.

1. Introduction

The Kingdom of Cambodia though is one of the Least Developed Countries (LDCs) in the South-East Asia, but is quite rich in its natural resources. Cambodia is a country of rice fields, forest and rivers with the Tonle Sap Great Lake that was formed some 5-6,000 years ago (Carbonel, 1963; Rainboth, 1996) as its heart and the fish cradle of the country. Cambodia is a fish consuming community where fish contributes up to 81.5 per cent of the total animal protein intake of the people, especially the rural indigents and the poor living in the areas far away from important water bodies (Ahmed et al., 1998; Hortle, 2007; Thuok, 2009).

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By consuming on an average 52.4 kg/capita/year, fish maintains second position, next to rice (143 kg/capita/year), in the food equation of the Cambodian people (Van Zalinge et al., 2000; Thuok, 2009), but in terms of monetary value, fish occupied the first position in the equation (Thuok, 2009).

Apart from the exceptionally productive capture fisheries and infant aquaculture production, Cambodia is estimated to endow with the rice field fisheries that produces naturally on an average 100 kg/ha/year of indigenous fish species (Hortle et al., 2008). By assuming that the total area of lowland rice fields of about two million hectares all over the country, the total fish production from this kind of fisheries may account easily for about 200,000 tons annually (Hortle et al., 2008). These fisheries contribute very significantly to the daily livelihood of the rural indigents and the poor living far away from major water bodies. The natural fisheries, notably those in the lowland agricultural cropping ecosystem, are gradually depleted as a result of environmental degradation and the loss of habitats and/or fragmentations that make fishes become scarce and life difficult, especially for the rural dwellers. In this context, improving the rice field fisheries production to the maximum extent possible at a very low cost is extremely crucial to increase fish supply in the lowland rain-fed agricultural ecosystem, thereby improving nutritional protein, vitamins and minerals, particularly calcium and vitamin A and improving livelihood of rural indigent and the poor.

One possible option in the improvement of fish production in the lowland agricultural cropping ecosystem is the introduction of refugia and conservation areas for stock rehabilitation that has been proven beneficial to the maintenance of fish stock diversity and yields (FAO, 1997). The concept of "Community Fish Refuge Husbandry" (CFRH) developed originally by the Aquaculture Division of the Fisheries Administration of the Kingdom of Cambodia in 1995 in collaboration with the Asian Institute of Technology, Bangkok through the Aquaculture and Aquatic Resources Management (AARM) Project. The CFRH system refers to a kind of village/community protected ponds established in seasonally inundated rice fields which is located far from natural permanent water bodies. The ponds are connected to rice fields through canals or fish pathway so that they can be able to reproduce, spawn and grow out naturally in the flooded rice fields during the rainy season (Doi and Viseth, 2005).

The Community Fish Refuges (CFR) system in Cambodia as a whole is now under different stages of development and as a concept it is still very new in the Cambodian context. Further, the establishment of CFR is following the understanding of each organization working on it during the transition period before the full set of legal framework is in place. All in all, each community is led by a CFR Committee with a set of regulation and by-law to be followed by the whole community. There are several sub-committees or groups responsible for some important tasks, such as patrolling, accounting, etc. The number of community members also varies from province to province according to the real situation of each location.

To be a CFR, the local people should organize themselves with assistance from the Community Fisheries Development Officers and NGO in the drafting of the CFR by-law, internal regulation and help them approved by the CFR General Assembly. After this, the CFR is required to draft the community fishing area management plan and sign a community fishing area agreement with the competent Fisheries Administration. Finally, the CFR shall register with the Ministry of Agriculture, Forestry and Fisheries which is the institution responsible for overseeing the CF. It is believed

that the Community-managed Fish Refuges (CFR) system can help to produce much more substantial amount of fish naturally in the lowland rice field ecosystem if appropriate management system is introduced and encouraged (Thuok, 2009).

In the Kingdom of Cambodia, a total of 52 Community Fish Refuges (CFRs) had been established spread among 13 provinces with a total of 6,986 members. Dividing the country geographically into various ecological regions, such as the Central Plain, the South-East, the South-West, the North-East and the North-West, it is found that the South-Eastern region which encompasses five provinces, namely, Svay Rieng, Prey Veng, Kandal, Takeo and Kompong Speu, has the presence of 40 CFRs, i.e., around 77 per cent of the total CFRs in the country. Moreover, in this region, while Kandal province has only one CFR, Svay Rieng province presents a maximum of 16 CFRs which is the highest in the region as well as in the country. However, though there are six CFRs in the Takeo province but they cover 1,610 members which is the highest. The South-Eastern region as a whole has 4,863 members covered under 40 CFRs, which is around 70 per cent of the total members under the 52 CFRs in the country.

As it is commonly believed that CFRs contribute to the improvement of the livelihoods of the rural communities, it is felt necessary to undertake a systematic study on the Fish Refuge Husbandry's contribution to fish production in the lowland rain-fed agricultural ecosystem and thereby its impact on the livelihoods of the rural communities.

2. Objectives

The main objectives of the study are as follows:

i. To discuss about the Community Fish Refuge (CFR) system in the country in general and South-Eastern region in particular.
ii. To assess the change in fish production in the areas where CFRs have been introduced and to examine the impacts of CFRs on the economic conditions of the members.

3. Hypotheses

The hypotheses of the present study are as follows:

i. There is no significant change in the fish production of the members after the formation of the CFRs.
ii. There is no significant change in the income position of the members after the formation of the CFRs.
iii. There is no significant change in the expenditure position of the members after the formation of the CFRs.
iv. There is no significant change in the saving position of the members after the formation of the CFRs.
v. There is no significant change in the asset position of the members after the formation of the CFRs.

4. Methodology

Cambodia is divided geographically into various ecological regions, namely, the Central Plain, the South-East, the South-West, the North-East and the North-west.The South-Eastern region encompasses five provinces, namely Svay Rieng, Prey Veng, Kandal, Takeo and Kompong Speu. This region is densely populated with scarce fisheries resources (except Kandal province) where 40 CFRs, i.e., 76.92 per cent of the total number of CFRs in the country (52) have already been organized.

Following the successful trials on CFRs in Svay Rieng province by the Aquaculture Division of the Fisheries Administration, Ministry of Agriculture, Forestry and Fisheries, Royal Government of Cambodia in collaboration with the Asian Institute of Technology, Bangkok through the AARM project, CFRs were introduced in the lowland rain-fed rice cropping ecosystem in Cambodia. These CFRs are proven to be very effective in enhancing

natural fish production in community-managed ponds. As of June 2006, a total of 52 CFRs had been established in 13 provinces of Cambodia. Table 1 shows province-wise CFRs in the country along with their position of members.

Table1: Province-Wise CFRs and Membership in Cambodia (June, 2006)

Sl. No.	Ecological Region	Province	Number of CFRs	Total No. of Members
1	South-East	1. Kandal	1	83
		2. Takeo	6	1,610
		3. Prey Veng	7	1,455
		4. Kompong Speu	10	867
		5. Svay Rieng	16	848
	Sub-total		40	4,863
2	South-West	1. Kampot	1	95
		2. Sihanouk	2	701
	Sub-total		3	796
3	North-East	1. Kratie	1	100
	Sub-total		1	100
4	North-West	1. Siem Reap	1	401
		2. Banteay MChey	1	170
		3. Battambang	3	155
	Sub-total		5	726
5	Central Plain	1. Kompong Thom	1	150
		2. Kompong Cham	2	351
	Sub-total		3	501
	Total		**52**	**6,986**

Source: DoF, 2007.

For the purpose of the study, after the selection of the South-Eastern region purposively, two-stage sampling was used to select the CFRs and the respondents. At first, one CFR from each province was selected randomly by lottery method, irrespective of the number of CFRs in the province. After the selection of CFRs, 30 per cent of the total members from each selected CFR were again randomly selected from a source list by lottery method. The name of the CFR of each province along with the total members and members selected are presented in Table 2.

Cambodia being an agricultural based country, about 2.4 million hectares of rice fields is cultivated every year. As per the rice growing practices, two types of rice cropping ecosystem are clearly identified, namely, the upland rain-fed rice cropping ecosystem, where slash and burn cultivation in the upland and mountainous region are practiced and the lowland rain-fed rice cropping ecosystem, where most of the dominant rice production activities are cultivated. Considering the presence of rich fisheries resources in the rice field, the present study selected the lowland rain-fed rice cropping ecosystem for its coverage. The study was confined to five provinces, i.e., Svay Rieng, Prey Veng, Kandal, Takeo and Kompong Speu. Five CFRs in total (one CFR from each province) were selected for the purpose of the study and 291

Table 2: Description of Sample Design

Sl. No.	Province	Total Number of CFR	Name of Selected CFRs	Total Members	Number of Members Selected
1	Svay Rieng	16	Phum Kandal	116	35
2	Prey Veng	7	Prey Kuy	163	49
3	Kandal	1	Prasat	83	25
4	Takeo	6	Prey Kduoch	510	153
5	Kompong Speu	10	Trapeang Piry	96	29
	Total	**40**	**5**	**968**	**291**

Note: While one CFR from each province was selected randomly by lottery method, in case of Kandal province, due to the existence of one CFR the same was taken for study purpose.

members were selected from those five CFRs for the purpose of interview.

The primary data for the purpose of the study were collected with the help of a structured questionnaire. Further, direct personal interview method was adopted in collecting relevant information from the target respondents. The questionnaire prepared for this purpose includes questions on several socio-economic characteristics of the respondents along with questions related to the fish production from the rice field fisheries, their income, expenditure, saving and asset positions before and after the formation of CFRs. The questionnaire was pre-tested before its finalization.

In order to measure the significance of the change on several aspects, such as production of fishes, income, expenditure, saving and asset positions of the members before and after the formation of the CFRs, the 't' test was carried out through the use of the following formula:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{S} \times \sqrt{\frac{n_1 n_2}{n_1 + n_2}}$$

Where,

$\bar{x}_1$ = **mean value of the members after the formation of CFR.**

$\bar{x}_2$ = **mean value of the members before the formation of CFR.**

n_1 **and** n_2 = **number of members after and before the CFR respectively.**

S = **combined Standard Deviation.**

The value of S is calculated as follows:

$$S = \sqrt{\frac{\sum (x_1 - \bar{x}_1)^2 + \sum (x_2 - \bar{x}_2)^2}{n_1 + n_2 - 2}}$$

Degrees of freedom (df) = n_1+n_2-2

The 't' test is used to test the null hypotheses set before the study.

5. Empirical Results

5.1 Annual Surplus of Fish Production

In the study area fish production from rice field fisheries had contributed to the supply of aquatic animals to the farmers. Moreover, the fish production from rice field fisheries had gradually increased after the formation of CFRs. As indicated in Table 3, before the formation of CFRs, around 39 per cent respondents had their average fish surplus of 38.47 Kg., whereas after the formation

of CFRs, around 42 per cent respondents had average fish surplus beyond their household consumption of 46.09 Kg. Similarly, around four per cent respondents had their average fish surplus of 164.09 Kg. before the formation of CFRs, which had marginally increased on an average to 164.17 Kg. for seven per cent respondents after the formation of CFRs. Further, less than one per cent (0.69 per cent) respondents had their average fish surplus of 245.00 Kg. before the formation of CFRs, while around three per cent had their average fish surplus of 264.17 Kg. after the formation of CFRs. Only one per cent respondents had their average fish surplus of 333.33 Kg. before the formation of CFRs, which had increased to 373.33 Kg. on an average for the same per cent respondents after the formation of CFRs. Finally, six per cent respondents had their fish production surplus of 577.78 kg. before the formation of CFRs which increased to 586 Kg. after the formation of CFRs with nine per cent respondents.

In general, the study revealed that the mean surplus of fish production before the formation of CFRs was 62 kg. per year, which had increased to 349 kg. after the formation of CFRs. It is important to see that the percentage of respondents having no surplus of fish production before the formation of CFRs had fallen from 49 to 38 after the formation of CFRs.

Table 3: Annual Average Surplus of Fish Production of Members before and after the Formation of CFRs

Fish Surplus (Kg)	Number of Respondents		Mean of Fish Surplus (Kg.)	
	Before CFR	After CFR	Before CFR	After CFR
Less than100	113 (38.83)	121 (41.58)	38.47	46.09
100 – 200	11 (3.78)	20 (6.87)	164.09	164.17
200 – 300	2 (0.69)	8 (2.75)	245.00	264.17
300 – 400	3 (1.03)	3 (1.03)	333.33	373.33
400 and above	18 (6.19)	27 (9.27)	577.78	586.00
Sub-Total	147 (50.52)	179 (61.51)	122.73	567.35
No Fish Surplus	144 (49.48)	112 (38.49)	-	-
Total	**291 (100.00)**	**291 (100.00)**	**62.00**	**348.99**

Note: Figures in parentheses indicate percentage to total.
Source: Computation from Primary Data.

5.2 Impact on Income Generation

The income of the members of CFRs was derived from a number of economic activities, such as surplus fish production, production of vegetables, animal raising, like chicken, duck, and pig and rice cropping. The results of the study reveal that the formation of CFRs had enabled the members to raise their income in the community. The mean income after the formation of CFRs had increased as compared to the mean income before CFRs for all member respondents of various categories of income groups. A significant increase in mean income after the establishment of CFRs was found as compared to before CFRs of the members in the income group of US$ 1,000 and above. In this income group, around eight per cent respondents

had an average income of USD 1,424.77 before the formation of CFRs, which had gone up to USD 2,024.36 after the CFRs was established by around 27 per cent respondents. In total, before the formation of CFRs, the respondents had the annual average income of US$ 442.10 which had increased to US$ 924.59 after the formation of CFRs as shown in Table 4.

Table 4: Annual Average Total Income of the Members before and after the Formation of CFRs

(in USD)

Income Group	Number of Respondents		Mean Income	
	Before CFR	After CFR	Before CFR	After CFR
Less than 200	85 (29.21)	27 (9.28)	102.02	113.35
200 – 400	74 (25.43)	50 (17.18)	293.62	317.12
400 – 600	60 (20.62)	57 (19.59)	493.83	495.87
600 – 800	36 (12.37)	45 (15.46)	691.01	720.69
800 – 1,000	14 (4.81)	33 (11.34)	885.80	894.49
1,000 and above	22 (7.56)	79 (27.15)	1,424.77	2,024.36
Total	**291 (100.00)**	**291 (100.00)**	**442.10**	**924.59**

Note: Figures in parentheses indicate percentage to total.
Source: Computation from Primary Data.

5.3 Impact on Expenditure

The expenditures of the members mostly comprised of food, clothing, education, family health and medical care, and fishing gears. It is revealed that the expenditure incurred by the members on all the above items had gone up after the formation of CFRs as compared to before the establishment of CFRs except members of expenditure categories of US$ 400-600 and US$ 800-1,000. Table 5 shows that mean expenditure per year which was US$ 445.12 had increased to US$ 611.46 after the formation of CFRs as compared to before the establishment of CFRs.

Table 5: Annual Average Total Expenditure of the Members before and after the Formation of CFRs

(in USD)

Expenditure	Number of Respondents		Mean of Expenditure	
	Before CFR	After CFR	Before CFR	After CFR
Less than 200	52 (17.87)	38 (13.06)	128.49	136.10
200 – 400	89 (30.58)	69 (23.71)	297.36	300.15
400 – 600	80 (27.49)	55 (18.90)	494.38	490.46
600 – 800	39 (13.40)	34 (11.68)	683.15	696.82
800 – 1,000	20 (6.87)	45 (15.46)	903.06	897.47
1,000 and above	11 (3.78)	50 (17.18)	1,102.74	1,220.02
Total	**291 (100.00)**	**291 (100.00)**	**445.12**	**611.46**

Note: Figures in parentheses indicate percentage to total.
Source: Computation from Primary Data.

5.4 Impact on Saving

So far as saving position of the members is concerned, it is revealed that before the formation of CFRs, only 36 per cent member respondents were able to save on an average USD 172.55 per year. However, after the formation of CFRs, the percentage of members having ability to save had increased to around 44 per cent. In all the saving categories, the percentage of members of saving had increased after the formation of CFRs as compared to before. The mean saving of members was USD 172.55 before the formation of CFRs, which had increased to USD 233.82 after the establishment of CFRs. Thus, as shown in Table 6, the annual average saving of the members was USD 62.26 which had increased to USD 102.05 after the formation of CFRs as compared to before the formation.

Table 6: Annual Average Total Saving of the Members before and after the Formation of CFRs

(in USD)

Saving Group	Number of Respondents		Mean of Saving	
	Before CFR	After CFR	Before CFR	After CFR
Less than 200	75 (25.77)	76 (26.12)	81.81	85.91
200 – 400	19 (6.53)	33 (11.34)	264.06	286.33
400 – 600	5 (1.72)	6 (2.06)	520.00	508.33
600 and above	6 (2.06)	12 (4.12)	727.50	888.96
Sub-Total	105 (36.08)	127 (43.64)	172.55	233.82
No saving	186 (63.92)	164 (56.36)	-	-
Total	**291 (100.00)**	**291 (100.00)**	**62.26**	**102.05**

Note: Figures in parentheses indicate percentage to total.
Source: Computation from Primary Data.

5.5 Impact on Family Asset

Surveyed member families had various types of assets, such as bicycles, motorbikes, radio sets, TV sets and CD/tape recorders, etc. Some families also owned more than one item compared to others. The percentages of the members having all the above types of assets after the establishment of CFRs were more than before the formation of CFRs. The total asset value before the formation of CFRs amounting to USD 70,810 had gone up to USD 169,370 after the formation of CFRs. The mean asset value of the members as shown in Table 7 had increased to USD 582.03 from USD 243.33, i.e., more than the double, after the formation of CFRs as compared to before the establishment of CFRs.

In the present study 't' test was used to test the significance of difference between the two population means of the selected variables before and after the formation of Community Fish Refuges. The hypothesis testing reveals the following results:

i. So far the change in the fish production of the members after the formation of CFRs is concerned, it is revealed that the calculated value of 't' is 4.21 at df 580 with p-value .000 (Table 8), which is more than the table value at one per cent level of significance. As explained, before the formation of CFRs the members had the annual average fish production of 62 Kg. which had increased to 349 Kg. after the formation of CFRs. This

Table 7: Family Assets of the Members before and after the Formation of CFRs

(in USD)

Family Assets	Number of Respondents		Value of Asset	
	Before CFR	After CFR	Before CFR	After CFR
Radio sets	74 (25.43)	115 (39.52)	740	1,150
CD/tape recorders	46 (15.81)	71 (24.40)	2,300	3,550
TV sets	94 (32.30)	191 (65.64)	14,100	28,650
Bicycles	161 (55.33)	206 (70.79)	11,270	14,420
Motorbikes	53 (18.21)	152 (52.23)	42,400	121,600
Total asset value			70,810	169,370
Mean asset value			243.33	582.03

Note: Figures in parentheses indicate percentage to total.
Source: Computation from Primary Data.

indicates that there was significant increase in the fish production of members from rice field fisheries after the formation of CFRs as compared to before the formation of CFRs. Thus the null hypothesis "There is no significant change in the fish production of members after the formation of CFRs" is hereby rejected.

ii. With regard to the change in income position of the members after the formation of CFRs, it is found that the calculated value of 't' is 4.95, which is more than the table value at one per cent level of significance with df 580 (Table 8). As mentioned, before the formation of CFRs the members had the annual average income of USD 442.10 which had increased to USD 924.59 after the formation of CFRs. This shows that there was significant increase in the income position of the members after the formation of CFRs as compared to before the formation of CFRs. Hence the null hypothesis "There is no significant change in the income position of the members after the formation of CFRs" is hereby rejected.

iii. So far the change in the expenditure position of the members after the formation of CFRs is concerned, it is revealed that the calculated value of 't' is 4.58 which is more than the table value at one per cent level of significance with df 580 (Table 8). Before the formation of CFRs, the members had the annual average expenditure amounting to USD 445.12 which had increased to USD 611.46 after the formation of CFRs. This implies that the expenditure position of the members after the formation of CFRs had increased significantly as compared to before the formation of CFRs. Therefore, the null hypothesis "There is no significant change in the expenditure position of the members after the formation of CFRs" is hereby rejected.

iv. Significant change in the saving position of the members after the formation of CFRs as compared to the same before the formation of CFRs was observed. This result is revealed from the't' value, i.e.,2.49 with df 580 at five per cent level of significance as shown in Table 8. As explained before, the

average saving of the members before and after the formation of CFRs in the study area were USD 62.62 and USD 102.05 respectively. This indicates that there was significant increase in the saving position of the members after the establishment of CFRs. Hence this leads to the rejection of the null hypothesis "There is no significant change in the expenditure position of the members after the formation of CFRs".

v. With regard to the change in the asset position of the members between before and after the formation of CFRs, the 't' value, i.e., 9.53 with df 580 at one per cent level of significance shows the significant change in the asset position of the members (Table 8). The average asset value of the members before the formation of CFRs was USD 243.33 which had increased to USD 582.03 after the formation of CFRs. This shows a significant increase in the asset position of the members after the formation of CFRs. Thus the null hypothesis "There is no significant change in the asset position of the members after the formation of CFRs" is hereby rejected.

Table 8: Results of Testing of Hypotheses

	Hypothesis	t-Value	df	p-Value
1:	There is no significant change in the fish production of the members after the formation of CFRs.	4.21	580	0.000**
2:	There is no significant change in the income position of the members after the formation of CFRs.	4.95	580	0.000**
3:	There is no significant change in the expenditure position of the members after the formation of CFRs.	4.58	580	0.000**
4:	There is no significant change in the saving position of the members after the formation of CFRs.	2.49	580	0.013*
5:	The is no significant change in the asset position of the members after the formation of CFRs.	9.53	580	0.000**

Note: ** Significant at one per cent level of significance.
* Significant at five per cent level of significance.

6. Conclusion

The result of the present study shows that the Community Fish Refuges played a very important role in improving the livelihoods of the rural poor farmers at the community level in terms of increase in fish production, income generation, expenditure, saving and asset position. As CFRs in general have been significantly providing economic benefits to the members, particularly the poorer section of the society, measures to extend and strengthen the system of CFRs should be initiated at all levels.

References

Ahmed, M., Navy, H., Vuthy, L. and Tiongo, M. (1998). *Socio-economic Assessment of Freshwater Capture Fisheries in Cambodia: Report on a Household Survey*. Mekong River Commission, Phnom Penh, Cambodia.

Doi, M. and Viseth, H. (2005). *Introduction to the Fish Refuge Pond Programme in Cambodia.* Cambodia Fisheries Magazine, Phnom Penh, Cambodia, Volume 6, Year 3, Second Semester, pp. 32-35.

Hortle, K.G., Troeung, R. and Lieng, S. (2008). *Yield and Value of the Wild Fisheries of Rice Fields in Battambang Province, Near Tonle Sap Lake, Cambodia.* MRC Technical Paper No. 18. Mekong River Commission, Vientiane, 62p. ISSN: 1683-1489.

Sarun, C. (2006). *Strategies for Increasing Sustainable Rice Productivities.* Ph. D. Thesis submitted to the Chamroeun University of Polytechnologies, Phnom Penh, Cambodia.

Thuok, N. (2009). *Community Fish Refuge Husbandry in Lowland Agricultural Cropping Ecosystem (An Alternative Option for Increasing Fish Supply and Improving Rural Livelihood in South-Eastern Region of Cambodia).* Ph.D. Thesis submitted to Build Bright University, Phnom Penh, Cambodia.

TWGF, (2006). *Impact Assessment on Policy Reform in Cambodia.* Technical Working Group on Fisheries, FiA, MAFF, Phnom Penh, Cambodia.

Van Zalinge, N.P., Thuok, N. and Lieng, S. (2000). *Management Aspect of Cambodia's Freshwater Capture Fisheries.* Eleven Presentations given at the Annual Meeting of the Department of Fisheries of the Ministry of Agriculture, Forestry and Fisheries, 27-28 January 2000. Mekong River Commission and Department of Fisheries, Phnom Penh, Cambodia.

Viseth, H. and Da, C. (2005). *Is the Fish Harvest in Farmer's Managed Water Bodies Important for Rural Community's livelihood?* Department of Fisheries, Phnom Penh, Cambodia and DFiD, UK.

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Economic and Financial Performance of Fishery Co-operatives – A Study of Fishery Co-operatives around Chilika Lake, Orissa

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Research Abstract

Title	Economic and Financial Performance of Fishery Co-operatives – A Study of Fishery Co-operatives around Chilika Lake, Orissa
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Co-operation is a world-wide movement. The role played by co-operatives in the socio-economic development of the people in general and poor in particular is well recognized all over the world. Millions of people around the globe have chosen the co-operative model of business enterprise to achieve their both personal and community development goals. In India, co-operatives have been assigned a very significant task of alleviating poverty, unemployment and improving the socio-economic standards of the weaker sections. To-day, co-operatives cover a large gamut of activities to serve the interest of the consumers, producers and other weaker sections of the society. Though co-operative has made notable presence in several sectors of the economy, but its relevance is significantly felt in the fishery sector as the co-operatives in this sector help in improving the economic conditions of the poor fishermen who have remained poverty stricken for centuries. Thus, to provide economic advantage to the poor fishermen and regenerate their socio-economic standards, fishery co-operatives are organized in the country. However, in spite of the support provided by the government in terms of technical, financial and infrastructure facilities, some of the co-operatives still have organizational, managerial, and operational weaknesses for which they remain unsuccessful to meet their objectives. In this context, examination of problems of fishery co-operatives assumes importance for formulating effective strategies to revitalize and strengthen these committed enterprises. Against this backdrop, the study was carried out to assess the economic and financial performance of the primary fishery co-operatives around the Chilika Lake, India.

The specific objectives of the study are as follows:

i. To assess the growth and performance of co-operatives in general and fishery co-operatives in particular in Orissa.
ii. To analyze the socio-economic profile of the study area.
iii. To assess the level of economic and financial performance of the selected primary fishery co-operative societies around Chilika Lake.
iv. To identify the problems of co-operatives and strategies for co-operative development in general and of primary fishery co-operatives under study in particular.
v. To provide suggestions for the improvement of the performance of primary fishery co-operative societies in the study area.

The type of analysis carried out in this study was both descriptive as well as quantitative in nature. The study was based both on primary and secondary data. However, to assess the performance of primary fishery co-operatives, the study extensively used secondary data collected from the selected co-operative societies. Information relating to the problems and prospects of the primary fishery co-operatives were collected with the help of a structured questionnaire. Direct personal interview method was adopted to gather information from the sample co-operative societies. Among the 92 primary fishery co-operatives in the Chilika Circle (2005), only 74 co-operative societies were considered as working societies, whereas, the rest 18 co-operative societies were found to be at moribund stage. For the purpose of the study, 60 per cent of the working co-operative societies, i.e., 44 societies were taken into account and the selection of the co-operative societies was done randomly with the help of lottery method. The 44 societies selected for the purpose of study were under eight blocks located around Chilika Lake covering three districts, namely, Puri, Ganjam and Khurda.

In order to assess the level of performance of selected primary fishery co-operatives around the Chilika Lake, Iyengar and Sudarshan method was used. For this purpose, the study selected certain financial and physical indicators. Further, with the help of regression analysis, the impact of sales

revenue, operating expenses, own fund, borrowed fund and working capital on the gross profit of the selected co-operatives were measured. Moreover, to assess the financial performance of the selected primary fishery co-operatives, several ratios, such as purchase sales ratio, gross profit ratio, net profit ratio, operating expenses ratio, working capital turnover ratio, fixed assets turnover ratio, return on investment and debt equity ratio were carried out in the study.

The literature on the growth of co-operatives revealed that, in India, the co-operatives had been successful in covering 100 per cent of the villages with a membership of 242 million in 583.6 thousand co-operatives of several types (2004-05). Similarly, in the State of Orissa with the functioning of 4,635 co-operatives having a membership of about 6.3 million, co-operatives had covered all most all sectors of the economy. In case of fishery co-operatives, in 2005-06, a total number of 644 co-operative societies were in operation with a membership of 124,000 in the State of Orissa to enhance the socio-economic standard of the poor fishermen. Over the period 2001-02 to 2005-06, it was revealed that the members per society in fishery co-operatives had been in an increasing trend. The reviews of some studies carried out in different parts of the country as well as in the State of Orissa in general and fishery co-operatives in particular strongly favoured the existence of co-operatives for the cause of poor people.

The State of Orissa has abundant water resources and is one of the major maritime States of India, offering vast scope for the development of inland, brackish water and marine fisheries. The Chilika Lake is the main source of brackish water fish resources of the State and is considered as the life support system of more than 100,000 people whose main livelihood is fishery. The lake is surrounded by Brahmagiri, Kanas and Krushnaprasad blocks of Puri district, Tangi and Chilika blocks of Khurda district, and Khalikote and Ganjam blocks of Ganjam district.

With the help of Iyengar and Sudarshan method, the composite indices of performance of primary fishery co-operatives had been calculated and accordingly ranks had been assigned to the societies to know their relative position in each year and further to compare their position over the period of time. The analysis on the performance of the co-operative societies revealed that the relative performance of seven societies, such as Mangala PFCS, Maa Bhaibari PFCS, Sabulia PFCS, Kuhudi PFCS, Gopinathpur PFCS, Gangadevi PFCS and Keshpur PFCS had not been changed over the period of time. All the top five primary fishery co-operative societies had maintained their relative performance, i.e., their ranking positions remained the same over the period of study. Among them, Mangala PFCS ranked first in all the years under study followed by Maa Bhairabi PFCS, Sabulia PFCS, Kuhudi PFCS and Gopinathpur PFCS. The relative performance of six societies had improved continuously over the study period 2001-02 to 2005-06. These societies were Uttarayani PFCS, Bhusandapur PFCS, Gundicharani PFCS, Bhagabata PFCS, Kalimata PFCS and Nairi PFCS. Further, the performance of four societies, i.e., Refugee PFCS, Rashakudi PFCS, Jageswari PFCS and Chilika Jagannathpur PFCS over the period of study had fallen continuously.

In order to know the factors influencing the gross profit of the selected primary fishery co-operative societies, regression analysis had been done. The regression results show that all the independent variables, i.e., sales revenue, operating expenses, own fund, borrowed fund and working capital had significant impact on the gross profit of the societies. The impacts of own fund and working capital on gross profit of the societies were found to be negative, which clearly indicated that though

the co-operative societies had their own fund and working capital but the level of gross profit was less for most of them.

The financial performance of the primary fishery co-operative societies was assessed through the ratio analysis. The main purpose of carrying out the ratio analysis was to identify the strengths/weaknesses of the societies for further analysis and to suggest strategies for improving the financial conditions of the societies. In view of the above, three years average (2002-03 to 2004-05) as regards to purchase, sales, operating expenses, gross profit, net profit, own fund, borrowed fund, working capital, accumulated net loss and accumulated net profit of the selected primary fishery co-operatives had been worked out, and the required ratios were calculated. The ratio analysis revealed the following:

i. So far as purchase sales ratio is concerned, both in the years 2003-04 and 2004-05, the highest percentages of performing societies, i.e., 50 per cent and 43 per cent respectively, remained within the ratio of 96 to 100 per cent, and were considered as inefficient and substandard. A small percentage of societies in all the years, such as around 23 per cent in 2002-03 and 17 per cent each in both 2003-04 and 2004-05 performed well in maintaining their purchase sales ratios below 90 per cent.
ii. In all the years under study, more than 80 per cent of the active co-operative societies had achieved gross profit margin below 10 per cent. Due to low gross profit margin and high operational expenses along with low selling price, a small percentage of active co-operatives had enjoyed a thin percentage of net profit margin. As revealed, around 47 per cent, 50 per cent and 60 per cent of the active co-operative societies were in the net loss margin ratio for the years 2002-2003, 2003-04 and 2004-05 respectively.
iii. From the operating expenses ratio it was found that, in the year 2002-03, only 10 per cent societies were within the operating expenses ratio margin below 95 per cent, which further reduced to 3.3 per cent in the years 2003-04 and 2004-05. On the other side, around 60 per cent societies were within the operating expenses ratio varying from 100 per cent and above, which further increased to 70 per cent and 73 per cent in the year 2003-04 and 2004-05 respectively.
iv. The results of the working capital turnover ratio and fixed assets turnover ratio indicated inefficient use of assets by the co-operative societies. As revealed, around 23 per cent active societies were under negative working capital turnover ratio crossing even 20 times consecutively for all the three years under study. The indication of negative working capital amounts to technically insolvency and many fishery co-operatives having negative working capital found much difficulties in obtaining short-term credit from banks and other financial institutions.
v. As regards to fixed assets turnover ratio, it revealed that around 33 per cent, 27 per cent and 30 per cent of the active societies under the fixed assets rotation time were less than one in the years 2002-03, 2003-04 and 2004-05 respectively. However, around seven per cent to 10 per cent of the societies had efficiently used their fixed assets causing the rotation times more than 10 but less than 80 in all the years under study.
vi. In case of return on investment, around 70 per cent, 80 per cent and 82 per cent of the active co-operative societies experienced either negative or no positive ROI in the years 2002-03, 2003-04 and 2004-05 respectively. In case of societies having negative ROI, the capital was not profitably employed in the business activities.
vii. The debt equity ratio indicated that around

23 per cent co-operative societies were under highly risk capital structure as the debt capital mix ranged from 151 per cent to even above 300 per cent. Because of the higher amount of debt capital in the capital structure, all most all societies failed to pay dividend to their members for a long period.

The co-operatives in general and fishery co-operatives in particular have been facing a number of problems throughout the country. As revealed, the advent of globalization and liberalization had forced co-operatives to face multiple challenges of the market-oriented economy. The selected primary fishery co-operative societies in the study areas had faced several constraints in carrying out their activities smoothly. Among others, lack of government support, non-participation of government representative in board meeting, untrained and incompetent staff, lack of committed members, unawareness of the members about their role and responsibilities, lack of adequate policies and regulations to conduct the business of the society, stringent financial condition, lack of cold-storage facility, etc. were found to be significant. For the removal of the constraints and better functioning of the societies, the study had suggested several measures, such as a need of more positive and constructive role by the government in formulating policies, provision of functional based training to both official and non-official, member-education programme, provision of procurement of entire catches of the members, payment of the minimum guaranteed price on delivery of the catches, proper preservations of stocks, prompt marketing of catches, etc.

On the basis of the findings of the study, several policy measures and suggestions were provided to improve the performance of selected primary fishery co-operatives in the study areas as below:

i. Improvement in sales of the societies along with the reduction of expenses and involvement of the members actively in the business of the societies should be made at any cost without further delay. The members of the co-operative societies should be motivated to supply their catch to the societies and societies should make necessary initiatives to increase their sales revenue to make a greater amount of profit.
ii. The members of the societies should be trained on the use of modern technology to catch fish. The societies need to be actively involved in business to raise their level of profit and to build the confidence among the members so that the members will supply their catch to the societies instead of supplying to the middlemen engaged by the private traders.
iii. To enhance the sales revenue, the fishery co-operatives instead of selling raw fish should do some processing activities to further add value to their products.
iv. In order to reduce the cost of operation, owning and sharing transport carrier among the fishery co-operatives, and adopting common carrier system should be considered by the societies to reduce the transit loss.
v. Introduction of improved methods of fish catch and low cost of acquiring the catch should be taken as a priority by the co-operative societies. Further, the fishery co-operatives should expand their sales network both domestically and internationally and in this regard, Fishery Federation (FISHFED) as an apex organization should act as a negotiator with other organizations in promoting the products.
vi. To strengthen the working capital positions, the primary fishery co-operative societies should enhance their membership positions or discard some non-performing fixed assets or give their assets, such as boats, machines,

etc. on rent to others. Further, for the utilization of fixed assets efficiently, the fishery co-operatives should make proper utilization of the assets and adopt proper monitoring system as regards to the use of the fishing equipment.

vii. To improve the ROI positions, the fishery co-operatives should exercise measures relating to cost control and improvement of sales revenue. Further, to keep the debt equity ratio within the control limit, the societies should expand their sales volume and create new membership.

viii. In order to meet the pressing need of the fishermen and to make them away from the clutches of the middlemen and private money lenders, the fishery co-operatives should provide consumption credit to the needy fishermen. However, the societies should ensure prompt recovery of such loans from the sale proceeds of the fish catches done by the members.

ix. The financial institutions including the co-operative banks should simplify their norms with regard to lending to the fishery co-operatives, particularly, for meeting infrastructure development. Government should play a more positive and constructive role in terms of formulating suitable policies to improve the condition of the co-operative societies.

x. Adequate support services, such as auditing, education and training, management, advisory, etc. should be provided by government agencies/ institutions to the fishery co-operatives for their overall development. The functional government officials should provide proper guidance and direction to the co-operatives by their periodic visit and through proper inspection of records and reports.

xi. The primary fishery co-operatives should provide functional based training to raise the level of competency of their staff. For the successful implementation of the various development schemes as well as to manage the societies professionally, training should be considered as an important component and be provided to both official and non-official including paid staff of the societies. Further, program on member-education should be planned and carried out by the primary fishery co-operatives to raise the level of awareness among the members on their role and responsibilities.

xii. To eliminate the middlemen and merchants who have been exploiting the poor fishermen for a long-period, the primary fishery co-operatives should ensure procurement of the entire catches of the members, payment of minimum guaranteed price to the members on delivery of the catches, proper preservation of stocks and their marketing at identified centres both domestically and internationally. These measures would help in building confidence among the members on their primary fishery co-operatives.

xiii. The primary fishery co-operatives should strengthen their infrastructure facilities to support the members in the business. Necessary transport facilities should be provided to the members for bringing their catches to the co-operative without much delay. Similarly, adequate transport facilities should be ensured by the societies to reach the catches to the markets. Besides, for the proper stock of the products, adequate provision of storing facilities and other related infrastructure should be ensured by the co-operatives.

xvi. To encourage the members to become actively involved in the business of the society, election should be done timely and proper representation of the members in the board must be ensured. Further, the members

of the co-operatives should be encouraged to attend meetings and to contribute and support to the development of the co-operatives.

Thus, to strengthen the primary fishery co-operative societies, appropriate measures and interventions should be initiated at different levels. In this context, besides government and the co-operative societies, the members of the co-operative bodies have to play a definite role. In the light of the growing competition, to-day, the operations of the fishery co-operatives call for radical change. Therefore, the committed co-operatives should be revamped to manage themselves in a way so as to justify their existence in the society. To conclude, a modest attempt was made in the study to assess the economic and financial performance of the selected primary fishery co-operative societies around Chilika Lake, India for formulating effective strategies to revitalize and strengthen the committed organizations.

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A Study on Foreign Direct Investment in Cambodia

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Research Abstact

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Foreign direct investment (FDI) is investment of foreign assets into domestic structures, equipment, and organizations. It has positive effects on a host country's development effort. As Cambodia is one of the poorest countries in the world, FDI in the country is very much necessary for its economic development. The study on FDI has been undertaken in Cambodia with the following objectives:

i. To examine the role of FDI in contributing economic growth in different countries.
ii. To examine the existing FDI provisions of Royal Government of Cambodia.
iii. To assess the growth of FDI and its different dimensions in the country over the period of time.
iv. To examine the effects of active foreign investment projects of four major sectors,

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i.e., agriculture and agro-industry, industry and manufacture, tourism, and infrastructure and others, on GDP.

v. To examine the opportunities available to foreign direct investors, problems faced by them and prospects of FDI in Cambodia.

The analysis of the reviews of literatures shows that FDI can promote economic growth in the host country through a variety of channels like technology transfer, spillovers, source of external finance and improvement in technical and allocative efficiency in the host country. It helps in increasing capital formation and economic growth by introducing new technologies such as new production techniques, managerial skills, ideas, and variety of new capital goods. The economies with well-developed financial markets are able to benefit more from FDI in promoting their economic growth. Foreign investment gives advantage in terms of export market access arising from economies of scale in marketing of foreign firms or from the ability to gain market access abroad. It can also aid in bridging a host country's foreign exchange gap. Therefore, countries like Vietnam, India, Pakistan, China, Thailand, South Korea, Malaysia, South Africa, Mozambique, Singapore, Indonesia, Bangladesh and Cambodia have adopted proactive policies to attract FDI in order to develop their economies.

Both descriptive and quantitative approaches were used to analyze the data. Secondary data were collected from Council for the Development of Cambodia, Ministry of Commerce, Ministry of Economy and Finance, and Ministry of Planning of Government of Cambodia, International Monetary Fund and Web. Primary data were gathered from 83 foreign investors doing business on garment industry, food and beverage, real estate, electricity, construction and others. These 83 foreign investors were selected on the basis of proportional stratified random sampling method. The study had used two econometric models to assess the average annual growth rates of FDI and its different dimensions over the period of time and the impact of total project costs of active foreign investment projects of four major sectors, i.e., agriculture and agro-industry, industry and manufacture, tourism, and infrastructure and other sectors, on Gross Domestic Product (GDP) in Cambodia.

The Royal Government of Cambodia has policies to attract FDI. In the country, both foreign and domestic investors enjoy the same rights of national treatment. All foreign investors can invest in all sectors of the Cambodian economy. Although, the ownership of land is reserved to natural and legal Cambodians, but natural and legal foreign persons have the possibility to use land through lease contracts for a period of up to 99 years. Further, investors can set up 100 per cent foreign-owned investment projects and employ skilled workers from overseas, in the cases where these workers cannot be found in the domestic labour force. Investors in the special economic zones get the benefits like tax exemption on the import of materials, equipment and construction materials, tax on profit exemption for a maximum period of nine years, and incentive of zero per cent Value Added Tax. Import duty rates of zero per cent, seven per cent, 15 per cent, 35 per cent and 50 per cent are levied on primary products and raw materials, machinery and equipment, finished products, government protected goods, and luxurious goods respectively by the government.

The overall growth of total project cost of all types of investment flows in Cambodia during 1994-2004 was -18.38 per cent per annum with -7.81 per cent growth rate for foreign investment flows, 14.18 per cent for domestic investment flows and -30.02 per cent for joint countries investment flows. Further, the study found that the average annual growth rates of total fixed assets and equity of FDI during 1994-2004 were -6.31 per cent and -17.13

per cent respectively. The percentages of project costs of foreign investment projects in tourism, industry and manufacture, infrastructure and others, and agriculture and agro-industry sectors to total project cost of foreign investment projects during 1994-2004 were 46.38, 33.02, 15.80 and 4.80 respectively. The amount of fixed assets of FDI flow fluctuated with greater flow in late 1990s then fell down considerably in early 2000s and bounced back in 2005 with amount of USD 1,162 million. During 1996-2005, the total approved fixed asset of FDI was 14 per cent of GDP. During this period, industry sector absorbed the largest share of FDI, i.e., 55 per cent followed by 41 per cent in service sector, 21 per cent in tourism sector and seven per cent in infrastructure sector.

More than 48 per cent foreign direct investment in terms of fixed assets in Cambodia had come from ASEAN countries out of which the share of Malaysia was 36.89 per cent, which was the highest. If province/city-wise comparison is made, only 12 provinces/cities in the country were succeeded in attracting FDI in the industries like textiles, apparels, furniture, hotel and restaurants, and transports, and Phnom Penh had been most attractive to foreign investors, representing 77 per cent in fixed assets of the national total FDI during 1994-2004. The percentage shares of project cost of active foreign investment projects in industry and manufacture, tourism, infrastructure and others, and agriculture and agro-industry sectors were 51.92, 26.47, 13.91 and 7.71 respectively. The study result shows that the project costs of active foreign investment projects in industry and manufacture sector had significant positive impact on GDP in Cambodia.

The surveyed foreign investors opined that they invested money in Cambodia because of the expectation of growth of Cambodia market, prospect of development of industries, low production cost, provision of overcoming tariffs and other barriers, and provision of making use of patents, technology, brands, know-how or expertise. But, the major problems faced by them were cultural and language communication problems, delay in administrative procedure, and ineffective corporate governance. In the on-site management of FDI, they observed the problems like lack of transparency and consistency in regulations, prevalence of cronyism and corruption, excessive discretionary power of bureaucrats, complex tax systems, difficulties in getting machine parts and materials, and difficulties in recruiting and retaining efficient local workers. Moreover, the Cambodian workers lacked loyalty to companies and supervisors, lacked high collaborative team spirit, and had low English language skill, highly unionized and militant in character, and character of frequent change of jobs. However, the change factors like better corporate governance, transparency in operation, efficient operation and getting business partner in the country were some of the prospects found to attract more number of foreign investors in future.

On the basis of findings of the study, the following recommendations are suggested to attract more inward FDI in Cambodia: (1) the Government of Cambodia should improve its administrative procedures, create effective corporate governance, and make transparent operations, so that, proper and timely decisions can be taken; (2) the Royal Government of Cambodia should reform the education and training system, which is highly required to build such labour force. The education should focus on both professional and language skills with more focus on English language skill; (3) as agriculture and agro-industry sector was the most neglected sector in terms of FDI, and it had no significant positive impact on the growth of FDI, the government should give much emphasis to this sector to attract FDI; (4) the RGC should focus on the rehabilitation of key physical infrastructures to attract FDI. It should give high

considerations to build infrastructures and provide high quality services in the growth areas such as Phnom Penh, Siem Reap, Sihanouk Ville, Kampot, Koh Kong, Banteay Meanchey and Mondulkiri; and (5) the Ministry of Foreign Affairs and International Cooperation, Government of Cambodia in collaboration with the Ministry of Commerce, Government of Cambodia should spread the information on the business environment and potentialities of FDI in Cambodia among the prospective foreign investors in different countries of the world through international workshop, conference, advertisements in the website, newspapers, radios and televisions.

The overall discussion shows that FDI in Cambodia had not been much effective in promoting economic development of the country except the FDI in the industry and manufacture sector, which had significant positive impact on the growth of GDP. As FDI has contributed a lot for the economic development of many countries in the world, the Government of Cambodia should take all efforts to attract more FDI.

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