

Competitive Intelligence System in SMEs of Bangladesh: A Sense Making Approach

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Abstract:

SMEs in Bangladesh are playing a pivotal role in its economic development. Competitive intelligence in Bangladesh is at an infancy stage as SMEs do not follow any formal structure and often use the system on ad hoc basis rather than a regular practice. This research reports an interesting finding that instead of management's attitude, lack of adequate insight about the system along with cost inhibits Competitive Intelligence System (CIS) implementation. In addition, policy support from the government, skilled manpower, awareness level, and management's vision, firm's infrastructure and resource base (tangible and intangible), along with managerial & technical efficiency act as the impediments in CIS implementation.

Key Words: Competitive intelligence, sense making, SMEs

1. Introduction

SMEs are recognized as an engine of economic growth and employment

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generation that accounted for 90 percent of the total number of enterprises (SME Foundation, 2010) and 60 percent of all the companies in emerging economies (Tung and Aycan, 2008). SMEs in Bangladesh contribute more than 87 percent of the total industrial employment and add over 33 percent of value to the industrial goods (DCCI, 2003). Despite its contribution towards the economy there is scarcity of academic research on SMEs other than some policy research of the Centre for Policy Dialogue and the SME Foundation. Those studies, however, do not view the issue from theoretical lens to critique problems accompanied with their competitiveness and weaknesses of strategic decision making. This study has attempted to cover up the gap focusing on two promising SME sectors: pharmaceuticals and ceramic industry of the country.

Although readymade Garments (RMG) is the highest export earning sector contributing more than 77 percent (BKMEA, 2011), pharmaceuticals is considered as the highest contributor to the national exchequer. The Drug Control Ordinance 1982 has restricted the scope of selling imported drugs in the local market that helped in developing a strong manufacturing base in the pharmaceuticals sector. As a consequence 97 percent of the domestic demand is met by 245 registered companies. Prior to the promulgation of the ordinance the market was dominated by the multinational companies. Pharmaceuticals market for the last few years has witnessed a sharp increase in demand because of the favourable government policies, socio-economic development, growth of GDP, increased literacy rate and incremental awareness of health issues among citizens. The global market size of the pharmaceutical sector was US\$ 28.10 billion in 2007 which leapfrogged to US\$ 52.35 billion in 2010 and the country earned US\$ 3.40 billion and US\$ 3.82 billion respectively by exporting pharmaceuticals (Muktadir, 2011).

Ceramic as a labour intensive industry started in 1962 and is another promising sector in terms of export potential and employment. The global ceramic market is of US\$ 20 billion while Bangladesh has only 0.17 percent share. Sharp increase in the growth of local housing industry along with

growing order from international markets has propelled the industry growth rate. Bangladesh earned only US\$ 1million in 1991 before recording phenomenal growth of US\$30.78 million from exports in 2009-2010 and accommodated around 0.1 million workers (Board of Investment, 2012). The total annual capacity of 40 companies is 24,000 tonnes of which 52 percent fed into the local market and 48 percent exported. Because of high export priority of the local companies a gap has been created between demand and supply. Thus in 2008-2009 Bangladesh had to import US\$ 75 million to meet the local demand while it exported ceramics worth US\$ 31.70 million only. Meanwhile, the government has increased import tax from 20 percent to 45 percent in order to make the local companies competitive and by discourage imports (Jahan, 2010).

Competitive intelligence system as a strategic business tool (Porter and Kramer, 2002) provides insight about the competitors, their marketing strategies, R&D costs, core business processes, future business expansion plan and their strengths and weaknesses to carry out the plan in a given time (Dishman and Calof, 2008). Nasri (2011) suggest that to understand the nature and degree of uncertainties stemming from competition, competitive intelligence system is a right choice especially when innovation and competitiveness are the key factors to manoeuvre competition.

Thus, competitive intelligence can be envisioned as a supportive tool for both strategic and tactical decisions. Firms' competitiveness, however, depend on their ability to monitor the business environment and thereby develop strategies according to the time and context (Groom and David, 2001; Nasri, 2011). Competitive intelligence requires supportive organizational systems and processes for gathering adequate and reliable information about competitors and markets for informed decision making (Cobb, 2003; Nasri, 2011).

A growing number of empirical studies (e.g. Dishman and Calof, 2008; Hershey, 1980; Tarraf and Molz, 2006) have analyzed the impact of CIS in enhancing market share, growth, performance and competitiveness of firms.

But these studies do not provide any insight about the cognitive state of the people inside an organization and how they perceive intelligence and the use of an intelligence system. Jaworski, Macinnis and Kholi (2004) examined the impact of analysts' level of understanding on analysis and interpretation of data taking sense making perspective. The study was conducted on large companies in USA so did not purview that managers or entrepreneurs' level of understanding may even be more crucial than analysts as it could jeopardize the chance of using CIS in SMEs in developing countries.

The following section provides an overview of the theoretical concepts that explain the development of a conceptual framework. The third section provides a dyadic model of CIS and fourth section presents the research methodology. In section five empirical findings are presented and discussed in section six. Section seven concludes the study while section eight presents limitations and future research directions of the study.

2. Literature Review

Since the central focus of this research is to investigate whether 'cost or management's attitude acts as a prime barrier to implementation of competitive intelligence system in SMEs in Bangladesh, therefore literature review preceded with the discussion of 'concept of a small business' as consensus on the topic has hardly appeared. This discussion is followed by 'sense making perspective' to elicit how entrepreneurs and/or managers attitude or perception within the organization was developed and could influence the use of CIS. This section therefore focuses on the meaning of 'competitive intelligence' and its likely contribution to the SMEs.

2.1 Concept of Small Business

SMEs in Bangladesh are playing a significant role in the economic development and employment generation. More than 60 percent of the enterprises are either small or medium sized but their contribution to the GDP and employment creation is substantial. However, there is a growing debate in the existing literature about a universal definition of a small

business as the size of GDP, industrial policy, level of industrialization and stock of resources vary from country to country. According to the new definition of SMEs, which includes industries with investments up to Taka 500 million (US\$ 7.1 million), approximately 95 percent of the existing industries can be classified as SMEs (Al-Hussainy, 2003).

Considering the uniqueness and size of economy, the study adopts the definition of the Ministry of Industries of Bangladesh (2005) which describes the small industries as those employing less than 25 persons with a fixed capital investment of US \$ 1.66 million (Sector-wise Report of SME Foundation, 2010). SMEs in Bangladesh mostly wrestle with the shortage of capital, skilled workers and government support. With these limitations inappropriate insight about competition worsens the situation that calls for identifying and developing suitable strategies to outperform in competition.

Table 1
Sector-wise Categorization of SMEs in Bangladesh

| Enterprise | Sector | Asset Involvement | Number of Employees |
|------------|---------------|--|---------------------|
| Small | Trade | Unidentified | Less than 25 |
| | Manufacturing | Total fixed assets excluding land and building BDT 15 million (US\$ 1.66 million) | Unidentified |
| Medium | Trade | Unidentified | More than 25 |
| | Manufacturing | Total fixed assets excluding land and building between BDT 10 million - 15 million (US\$1.5-1.66 million) | Unidentified |

Source: Developed and based on sector wise study report-2010 of SME foundation of Bangladesh

2.2 Sense Making View

Ring and Rands (1989) describe sense making as “a process by which individuals develop cognitive maps of their environment”. Sense making literature emphasizes on identification of patterns of meaning that depend on

salient cues of the environment. The underlying assumption is that organizational functions like competitive intelligence do not always arise directly from external demand rather it largely originates from internally driven cognitive and linguistic processes. That is how managers are looking at a situation and the sense they are able to construct out of it (Basu and Palazzo, 2008; Weick, 1999).

From a sense making perspective, organizations are envisioned as a framework that consist of mental sculpts and social processes where things and events determine meanings. The mental models or frames then influence the perception of people which is an inside out approach viewing the world within the organization as well as critical decision making intertwined with perceived internal and external demands (Thompson, Strickland and Gamble, 2008). Thus, the 'sense making perspective' takes the social, psychological and epistemological processes into account to minimize the knowledge gap that decision makers possess in many cases (Basu and Palazzo, 2008; Ericson, 2001; Morgan, Frost and Pondy, 1983; Weick, 1995; 1999).

The tripartite sense making view assumes that the information/intelligence need of an organization is primarily influenced by three intrinsic factors (Fig. 1); the cognitive, linguistic and conative state. *Cognitive* state refers to how managers think of the world and justify engagement in certain activities that are likely to influence their firm's performance. *Linguistic* state is an objective assessment of the activities in which managers are engaged and the extent to which they would benefit from those activities. Whereas, *Conative* state determines the behavioral posture of managers in terms of their commitment and consistency in performing certain activities (Basu and palazzo, 2008).

Organizations are, therefore, seen as constantly evolving with people from diverse backgrounds. Pfeffer (2005) states that "what we do comes from what and how we think". So the central focus in sense making literature is on the human factor that involve the decision making process. Thus by incorporating insights from the sense making literature in the theoretical framework both internal institutional determinants and sense making

processes of an organization can be analyzed with competitive intelligence there in (Basu and Palazzo, 2008; Hoffman and Bazerman, 2006; Fiss and Hirsch, 2005).

2.3 Linking Sense Making to Competitive Intelligence

An intelligence system is a useful lens to track changes in both external and internal environments and anticipate their likely impact on an organization's performance. It helps in gathering, analyzing and interpreting information objectively to meet the objective of decision-making (Klandermans 1992; Snow, Bruke, Steven and Robert, 1986; Snow and Benford 1988, 1992). But analysis and interpretation of information received from different sources require not only objective rather subjective assessment as well. As equity of an organization, is determined by both financial performance and social acceptance, the former is the consequence of objective view while the latter is an outcome of subjective view. Dou, Dou Jr., and Manullang (2005) suggests that competitive intelligence deals with strategic information that makes SMEs more reactive and helps them in better decision making regarding relationships with all the business partners, competitors, customers, legislation and socio-cultural behavior that they interact with in the surrounding environment.

Once there was a myth that the competitive intelligence system would only be appropriate for large corporations because of the amount of resources involved. But competition spurred by liberalization of markets and globalization also affects SMEs that are more vulnerable to the intensive competitive edge. So, they have to understand on one hand the dominant player's strengths, weaknesses and market commitment that makes the environment volatile and on the other hand their own capacity for insulating them from competitive aggression. Koehler (1989) argued that in order to enhance competitiveness, adoption of competitive intelligence system for all sizes and types of organizations is essential. Groom and David (2001) explains that the advent of internet and modern communication technologies offer diverse types and sources of information about competitors quite

cheaply and conveniently, which has made the use of competitive intelligence easier and less tedious than in the past.

Firms need to innovate and differentiate products in order to address challenges stemming from globalization of markets, changing customer preferences, shifting market conditions, technological breakthrough and demand for better quality with variety and price war etc. Therefore demand for competitive intelligence for over two decades is growing worldwide as managerial focus has diverted from industrial age to information and knowledge-based competition. But, ‘effectiveness’ of an intelligence system warrants careful attention in gathering, selecting and analyzing information needed for strategic planning so that it can reflect present, past and future market conditions and the external environment (Fleicher, 2004; Montgomery, 1987; Porter, 1985; Sawers, 1983).

Many equate information to the competitive intelligence system which is a misconception, as information itself is a raw data and context free but shape into competitive intelligence when it is analyzed and has implications for strategic planning and decision-making. In addition, competitive intelligence sometimes is referred to as business espionage or spying which is another misconception about the system. ‘Competitive intelligence’, however, can be of several kinds, from simply observing market trends, surveying competitors, customers or scanning a company’s internal environment to more complex forms using modern digital technologies for multicontinent and multiplayer warfare (Fuld, 2006; Groom and David, 2001; Shaker & Gembicki, 1999).

Many scholars define competitive intelligence by focusing on several aspects of competitive activities of firms but any altruistic definition is hardly found. Brody (2008) has defined competitive intelligence system in a comprehensive manner covering both internal and external environment that a firm must encounter, “.... a process set in situations that are dynamic and in which the players are moving forward in a constantly changing business environment”. Calof and Skinner (1999) define competitive intelligence in a

simple manner as “...actionable recommendations arising from a systematic process involving planning, gathering, analyzing and disseminating information on the external environment for opportunities or developments that have the potential to affect a company’s or country’s competitive situation”. Both views underscore an active internal environment fit into the time and context for successful implementation of a CIS.

The Society of Competitive Intelligence Professionals to expunge the stigma of ‘espionage’ calls CIS ethical behavior of managers for scanning environment and probing information about competitors. According to them competitive intelligence is “...a systematic and ethical program for gathering, analyzing and managing external information that can affect a company’s plans, decisions and operations”, (SCIP, 2008). To sum up, competitive intelligence may seek information in both formal and informal ways to develop insight about competitors, customers, suppliers, environments (e.g. external and internal) and institutions in a legally and ethically acceptable manner with an aim of improving organizational performance.

Competitive intelligence manages and reduces risks avoiding information overload and making knowledge profitable but calls for privacy and security of information in order to use it strategically in corporate decision making. In principle, competitive intelligence helps decision makers understand the changing nature of market dynamics and forces that have substantial influence on the business environment, and more importantly, to develop suitable plans to deal successfully with intensive competition (McGonagle and Vella, 2002; Myburgh, 2004).

Competitive intelligence can help enterprises in several ways: identifying major competitors, new markets, concepts, products or opportunities; supporting, relaunching or repositioning the existing brand; generating ideas for new products, tracking market trends and formulating strategic plans. Thus the goal of competitive intelligence is to provide *actionable intelligence* on the information that has been analyzed, evaluated, synthesized, and

contextualized (Nasri, 2011 cited Donna and Barson, 2002; Fahey, 1999; Fuld, 1995).

Priporac, Gastoris and Zacharis (2005) metaphorically used competitive intelligence as both a product and a process while Gilad and Gilad (1988) referred to competitive intelligence as a multiplex of a process, a function, a product or combination of all the three. Westney and Ghoshal (1994) condensing empirical findings identified four steps to develop competitive intelligence i.e. data management, analysis, implications and actions that correspond to the Taylor's value adding view of organizing, analyzing and judgmental decision making process (Taylor, 1986).

3. A Dyadic Model of Competitive Intelligence System

Decomposing several scholarly views of competitive intelligence molded with sense making insights, the authors propose a conceptual framework that links up both intrinsic (e.g. management vision, entrepreneurial dynamism, corporate culture etc) and extrinsic (e.g. competition, market share, profitability etc) factors. The framework indicates a systematic approach and follows a cyclical order in developing a competitive intelligence system. It can help managers in providing an insight about the scope of both opportunities and challenges associated with CIS. In addition the framework shall also be useful to the researchers who desire to diversify their research dimensions into this exciting area as well as to those who have already investigated this topic, but in isolation or with limited scope.

As shown in Figure 1, competitive intelligence system begins with collaboration among decision makers in order to ascertain their intelligence needs and interprets them into specific intelligence requirements. However, requirement of information for the system is determined by the corporate sensing (e.g. management visionary, entrepreneurial dynamism, leadership style etc) which in turn is influenced by managers cognitive, linguistic and conative states (Basu and Plazzo, 2008; Bose, 2008). In addition

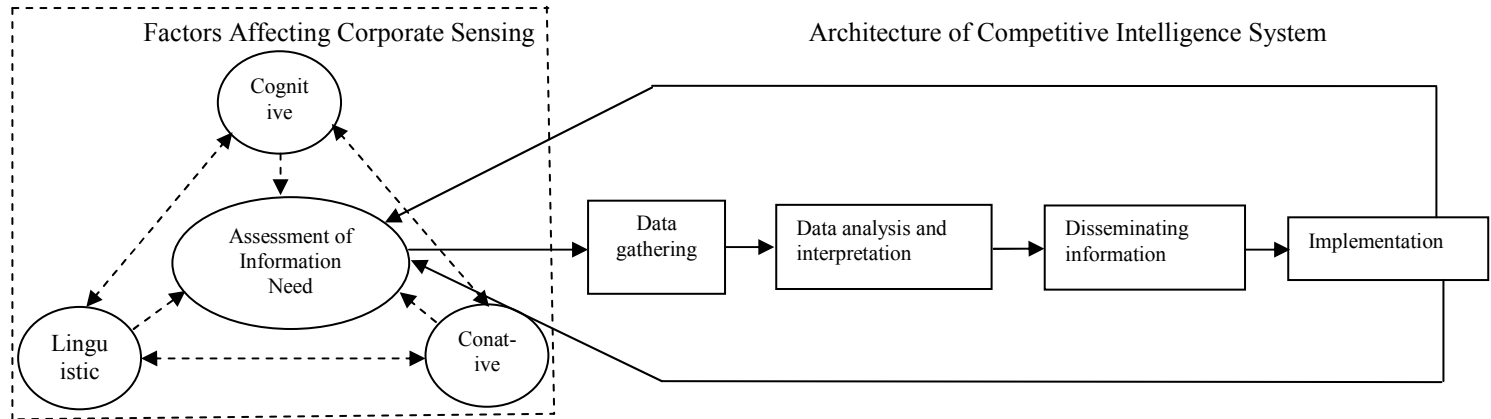


Fig. 1 A Dyadic Model of Competitive Intelligence System
Source: Developed by the authors based on survey results

organizational structure (e.g. formal and informal), procedures, policies and appropriate institutional support are essential components for competitive intelligence to ensure contribution of all employees to the system and getting benefit from it. As in the absence of support from the top management, competitive intelligence appears only as a management resource in a reactive way. Thus the management's attitude, insight and commitment to the intelligence system determine the importance and essence of such a system in the organization (Basu and Palazzo, 2008; Kahaner, 1997).

The second phase of generating competitive intelligence is the search for information referred to as the active exploration of information pertaining to competition or identification of all possible sources (e.g. external and internal) and types (e.g. personal and impersonal) of information and data gathering legally and ethically to meet the searching need (Aguilar, 1967) Managers gradually move from impersonal external sources to personal sources both inside and outside the company (Culnan, 1983; Jain, 1984; Keegan, 1974) also corresponds to the view of respondents that 'for the sake of verifying reliability of the information' they rely upon multiple sources instead of single source for gathering intelligence.

The following section of the paper analyses and interprets the activities that involve transformation of information into *actionable intelligence* on the basis of which both strategic and tactical decisions are made (Kahaner, 1997). This step follows dissemination of information that requires remitting information to the decision makers in an easily understandable format. This information later is used as input to conduct more complex analyses of events like; demand forecasting, trend analysis, developing competitors profile, strategic planning, and situation analysis (Dishman and Calof, 2008). If any deviation appears between the expected and actual performance at the implementation stage, then feedback is given and the process restarts (Gilad and Gilad, 1985; Herring, 1998).

4. Methodology

Entrepreneurs of SMEs in developing countries in most cases lack

appropriate insight about market dynamics and mechanisms fit for them (Dou et al. 2005). So to address the research questions, ‘sense making approach’ was an adequate choice in exploring gaps between the interface and in providing an appropriate direction to the decision makers in developing and implementing competitive intelligence systems.

Taking *positivistic* research philosophy a survey was conducted on the entrepreneurs (25) and managers (90) of pharmaceutical and ceramic industries of Bangladesh. It was known to be an appropriate method of collecting data for descriptive or exploratory studies and suitable when individuals are the unit of analysis for measuring attitude, perception and personal qualitative skills etc (Rossie & Freeman, 1993, Kerlinger, 1986).

Out of one hundred and fifteen surveys, hundred were used in the analysis (87 percent response rate) and fifteen were excluded due to incomplete information. Personal interviews were conducted by visiting the organizations located in the Dhaka city between January and April 2010 in the first phase. In the second phase, authors collected data between January and February 2012 including entrepreneurs in the sample with an aim of improving the work further. These organizations were randomly selected from the list of companies of the Securities and Exchange Commission’s website.

Using a semi-structured questionnaire, data was obtained through interview technique instead of a mail-out survey primarily for two reasons. First, the subject of competitive intelligence was not well studied in Bangladesh, and the variables that influence competitive intelligence activity were not well defined in a developing country’s context. So, interviews could provide rich information and create an opportunity to interpret management’s attitude and behavior towards the system (Miles and Huberman, 1994). Second, as many aspects of strategic decision making were involved, the respondents might conceive the topic as a sensitive issue and be reluctant to cooperate in providing information. Therefore, it required the development of a level of trust for respondents to share information which by meeting the

respondents in person could be established.

To investigate the effect of entrepreneurs and managers knowledge of CIS on its implementation a 10-item questionnaire was developed in line with the three broad factors identified from sensemaking literature: cognitive, linguistic and conative state. Of 10 questions, first six were for cognitive state, following three for linguistic state and the last question was for investigating conative state of the respondents. But all questions were asked both to the entrepreneurs and the managers so that a comparison could be made between views. Pearson's Chi-square statistics was used for checking the validity of the survey results. While rank order statistics was used to determine the degree of importance of measures, recommended by the respondents, which might improve SMEs capability for implementation of CIS.

5. Empirical Findings

5.1 Cognitive State of Managers

To explore the cognitive state of managers, the following question was posed; how much entrepreneurs and managers knew about the degree of competition and how well they conceive its importance in their decision making. The survey result show that in most cases (95 percent), entrepreneurs and/or managers were acquainted with their competitors. But the percentage of managers who exactly knew their competitors was not so high (39 percent). Other 31 percent approximately and 25 percent partially knew about their competitors (Table-1A, appendix).

Analyzing competitors' activities was as important as gathering competitive intelligence for determining the future game plan. Managers in analyzing competitors' actions in most cases (89percent) were as spontaneous as gathering competitive intelligence; this indicates their strong commitment to the system. To identify competitors' status (e.g. close vs. distant), classification of competitors was essential. In 91 percent cases, entrepreneurs of SMEs were found to classify their competitors and the

remaining 9 percent did not feel that classification of competitors was essential. They were of the view that similarity of their product-markets and size of businesses meant there was no justification for classification of competitors (Table-2A, appendix).

Regardless of the criteria used in determining their competitive position, maximum number of entrepreneurs (93 percent) acknowledged (strongly to simply agree) the necessity of competitors analysis for the long term competitiveness of firms. The percentage of those in agreement was very high compared with the percentage of those who remained silent (4 percent) or disagreed (3 percent), (Table-3A, appendix). Majority of the entrepreneurs (95 percent) recognized (66 percent strongly and 29 percent simply agreed on) the importance of access to the right information in time enhances the ability and effectiveness of decision making, (Table-4A and 5A appendix). A few (5 percent) informants, however, had no opinion about the rationality of the right information for decision making.

5.2 Linguistic State of Managers

SMEs were found to be primarily dependent on external sources to gain competitive intelligence (67 percent) than internal sources (15 percent). While, 18 percent reported that they were using other sources (Table-6A, appendix). Exploiting the benefits of competitive intelligence, however, required monitoring competitive movements constantly so that managers were aware of the market trend. But 69 percent (monthly and quarterly) reported that they were analyzing on continuous basis and 27 percent were problem-specific (e.g. semi annually and annually) while 9 percent never did (Table-7A, appendix).

The survey also revealed that in most cases the managers relied upon primary sources (72 percent, observation and survey) to gather data while 26 percent of the cases were dependent on secondary sources (commercial reports and computer sources) and the remaining 2 percent did not use any specific source. Also 47 percent of the managers used surveys while 25 percent of the managers used observation techniques for collecting the required data (Table-8A, appendix). Only 2 percent managers of SMEs

preferred other techniques for data collection.

After data gathering follows the analysis and interpretation. In Bangladesh, managers prefer manual process more than computer techniques for data analysis and interpretation. About 32 percent of the managers relied on manual processes which do not generate quick results or maintain accuracy and may not be statistically appreciated. Observation, the most traditional but still significant method is practiced as the second (30 percent) most preferred technique for data analysis. Whilst, only in 23 percent cases several statistical softwares were used for data analysis and ranked as third preferred technique despite being more scientific than any other technique. However the remaining 17 percent entrepreneurs did not use any specify technique (Table-8A, appendix).

5.3 Conative State of Managers

The survey found that, time and cost constraints formed 54 percent of the major impediments in implementing CIS followed by structural problems (20 percent) of the organizations. Nineteen percent of the respondents responded that financial strength of a firm play a significant role in CIS implementation. It was also suggested by some that competent resource persons were a requisite to implementing any system in an organization. Seven percent cases replied this as a constraint for CIS. Apart from these, lack of credit facilities, better technologies, limited use of computer, limited government support etc. were reported by 4 percent of the respondents as the main barriers to implementation of CIS (Table 10A, appendix).

As part of the survey, recommendations were sought from both managers and entrepreneurs for overcoming the problems they indicated, restrained them from using CIS. Their recommendations as summarized in Table-2 show that shortage of capital, entrepreneurial leadership, policy support from the government, training and top management attitude were identified as the major challenges for implementation of CIS. Of the total respondents, 33 percent strongly believed that financial strength of firms and government support in policy making could guarantee successful implementation of CIS.

Whilst, 21 percent of the managers emphasized that on and off the job training would build up employees' confidence and efficiency in CIS implementation. But recruitment of competent people was a prerequisite for getting benefits of training, which was identified as the second most important measure.

Further, the survey revealed that to some extent both managers and entrepreneurs were not aware of the CIS and its benefits that made them think more about the costs involved with it. In many instances it was entrepreneurs' personal whim that, as they have a long standing experience in the industry, they do not need any system to analyze competition and track market trends. Thus, 17 percent managers believed that awareness building programs could be effective in developing positive perception towards CIS.

Table 2
Measures that Can Improve Implementation of CIS

| Recommendations | Percentage (%) | Ranks |
|--|----------------|--------------------|
| i) Use of better technology | 6 | 8 th |
| ii) Market information collection through survey | 6 | 8 th |
| iii) Use of statistical tools for data analysis | 4 | 11.5 th |
| iv) Appropriate market analysis | 2 | 14 th |
| v) Right decision making at the right time | 8 | 6 th |
| vi) Developing organizational structure and management's efficiency | 4 | 11.5 th |
| vii) Reduce expenses in less important areas to implement the CIS | 10 | 4 th |
| viii) Govt. support in policy making and financial soundness | 33 | 1 st |
| ix) Recruit skilled manpower and train them | 21 | 2 nd |
| x) Awareness building program to attract more investment for overcoming financial constraint | 17 | 3 rd |
| xi) Management's attitude change | 10 | 4 th |
| xii) Technical support to build-up CIS | 6 | 8 th |
| xiii) Long-term policy making | 4 | 11.5 th |
| xiv) Ensure credit facilities by commercial banks with low interest rate | 4 | 11.5 th |

Source: Developed by the authors based on survey

To some extent, short sightedness of both entrepreneurs and managers persuaded them to invest into less important sectors but were reluctant about CIS which 10 percent managers believed should be improved. In addition, the right decision at the right time (8 percent), use of modern technologies, survey and technical support (6 percent), use of statistical techniques for data analysis and interpretation, organizational structure, long-term policy making and credit facilities (4 percent), market analysis (2 percent) etc were mentioned as important measures for CIS implementation (Table 2).

6. Discussion and Analysis

Competitive intelligence is a critical input for decision making that determines future game plan through scanning business environment (e.g. external and internal). Despite its pivotal role, there is little knowledge about factors within the organization that affect its implementation. At the general level, a unique contribution of this research is the development of a literature based framework underpinned by empirical findings that comprise sense making view – determine management orientation – and the architecture of developing a competitive intelligence system.

Know-how about the CIS at entrepreneurs and managers level of has substantial impact on the use of the system as indicated by the result of χ^2 test. This result is related with the cognitive state of managers, has been accepted at 0.01 percent to 4.1 percent level of significance. How much managers know about the system basically determines their level of motivation and purpose of using CIS which is related with the linguistic state. This has been supported by the result of χ^2 test as accepted at 0.01 percent level of significance. The most interesting finding this is that in Bangladesh use of CIS is primarily hindered by resource constraints (e.g. financial and infrastructural) of SMEs. So firms cannot afford the costs for constant monitoring and evaluation of the external environment, invest for developing supportive organizational infrastructure with technologies like; Enterprises Resources Planning (ERP), Electronic Data Interchange (EDI),

Vendor Managed Software (VMS) in order to access the real time data for the use of CIS. This is related with the conative state as it has strong influence on controlling managers and entrepreneurs' behavioral posture.

The finding is supported by the result of χ^2 test at 0.01 percent level of significance (Table-3).

Thus, the myth (discussed in the literature section) about the use of CIS comes true for Bangladeshi SMEs. Management of SMEs believes that the government support can be helpful to overcome cost constraint lightly that reflected inadequate commitment for achieving competitiveness. As a consequence, advantages of protective market, government incentives, reduced income tax facilities, supportive government policies and availability of cheap labor have appeared as discouraging rather than encouraging for achieving sustainable competitiveness.

The framework indicates that developing a CIS starts with assessing the need for information which is influenced by corporate culture of an organization. Corporate culture however is determined by management's vision, leadership style, organizational infrastructure and national culture. So overlooking management's attitude, which is distinct to every enterprise can be deadly for successful implementation of the system as the entire process of competitive intelligence is driven by the human effort (Toit, 2007 cited Oddendal, 2004).

Interestingly, little effort was made by prior research to address this aspect. Our findings indicate that SMEs in Bangladesh often lack appropriate structure for competitive intelligence. Factors related to managers and/or entrepreneurs awareness level such as; identification and classification of competitors, importance of information on regular basis for decision making revealed high response rate of (93-95 percent, Table 1A & 3A). It indicates that in most cases managers recognized the importance of competitive intelligence system for appropriate decision making which is supported by the results of χ^2 test.

Seemingly very high response rate (93-95 percent) towards the system

might be appealing as positive attitude of management would be complementary to the implementation of CIS. But inadequate insight about the system was revealed, as a large number of respondents downplayed the importance of the system. Majority of the managers (61 percent) were using problem-focused search technique that could result in ignoring information that might ultimately prove valuable (Jaworski et al. 2004). A negative view of competition by this perception seems to undermine the significance of competitive intelligence system. As companies with negative views of competition also tend to understate activities related with competitive intelligence, it implies organizations functional movement is influenced by their thought process (Peffer, 2005; Tarraf and Molz, 2006).

From theoretical critiques let us turn to the industry specific arguments for managerial implications of the findings. Pharmaceuticals as its very nature fall in high tech industry classification but interestingly in Bangladesh this industry has been climbing up the market growth ladder based on cost competitiveness. Firms are growing based on government protection (e.g. drug act 1982), escaping royalty as a least developed country under Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement) up to 2016 and availability of cheap labor. But after 2016 postponement of TRIPS agreement will definitely pinch on firms' competitiveness both in domestic and international markets as they have to pay royalty for using the process-technology of developed countries. Though because of government protection firms can avoid competition against multinational companies in the local market but in international market they must lose competitive ground.

On the other hand, in the ceramic industry after the recession many companies in the developed countries have shut down production. In addition Chinese, Indian and Sri Lankan firms, as strong competitors for Bangladeshi firms have lost attractiveness in international markets because of their increasing labor costs. Thus order receiving rate from international markets for ceramic products has increased. But local firms by their existing capacity can meet only 52 percent of the local demand and the remaining is met mostly by imported low priced Chinese products. Moreover, majority of the

raw materials for local firms are also imported from China. As Chinese products are cheaper over local products and occupy a substantial market share in Bangladesh so how can local firms protect them from the influx both at home and abroad is a big question before the managers. Meanwhile to protect local firms' government has increased the import tariff from 20 percent to 45 percent.

Thus evidence suggests that firms in both pharmaceuticals and ceramic industries are competitive not because of their competitiveness rather by comparative advantages endowed with availability of factors. But factor based competitiveness is always risky and can be eroded in the long run by innovation, technological changes and economic developments. Therefore to foresee challenges stemming from globalization effect that encroaches on long term sustainability of firms, CIS can be an effective weapon. As CIS provides information about the nature of competition and track market trends to enhance competitiveness of firms to maneuver competition rather than being handicapped by mere factor based comparative advantages.

7. Conclusion

Competitive intelligence can enhance marketplace competitiveness of SMEs through greater understanding of their competitors and the competitive environment. Competitive intelligence system diligently provides insight into competitors market share winning, their competitive strategies, developing right products for changing markets and customer preferences, building brand image and promoting a competitive culture that can enhance innovation and competitiveness of a firm (SCIP, 2008). Thus, competitive intelligence acts as a *sense giving* instrument to the top management to determine the relative competitiveness of their firms and support the strategic process in enterprises (Havenga & Botha, 2010).

But entrepreneurs and managers of SMEs in Bangladesh despite having positive attitude towards the system due to the lack of appropriate insight are too much fixated on costs rather than the benefits of it. The development and

implementation of CIS in SMEs of Bangladesh, therefore, has become largely dependent on the management's level of understanding of the system. While exploitation of the benefits of CIS is determined by firm specific resources, core competences and management's vision. Thus by developing core competences, management's vision, creating a cost conscious culture for pruning marginal costs, enhancing use of technologies, improving skills of the staffs through training sfirms can enhance their ability to use CIS.

8. Limitations and Future Research Direction

Only two industries in paper as sample with positivistic research approach are not suitable for a deeper understanding of SMEs in Bangladesh. In addition, pharmaceuticals and ceramic industries are relatively more competitive and follow structured operational policies that may not exist in many SME sectors in Bangladesh. Thus care must be taken to generalize the findings of this research beyond the sample industries. But considering the present study as bedrock, future research can be made with more samples from different areas and clusters by using case study method at a deeper level. Opportunity for future research also includes strategic uncertainty and demand for a competitive intelligence system.

References

- Aguilar, F. J. (1967). *Scanning the Business Environment*. New York: Macmillan.
- Al-Hussainy, S. M. (2003). *Policy Towards Investment and Industrialization*. Washington D.C., USA: Dhaka Chamber of Commerce & Industries (DCCI) - The Center for International Private Enterprise (CIPE).
- Basu, K., & Palazzo, G. (2008). Corporate Social Responsibility: A Process Model of Sense Making. *Academy of Management Review*, 33, 122-136.
- BKMEA (2011). History of Development of Knitwear of Bangladesh, Retrieved from: http://www.bkmea.com/history_of_development.php,

Accessed on: 20.07.2011.

- Bose, R. (2008). Competitive Intelligence Process and Tools for Intelligence Analysis. *Industrial Management & Data Systems*, 108(4), 510-28.
- Brody, R. (2008). Issues in Defining Competitive Intelligence: An Exploration. *Journal of Competitive Intelligence and Management*, 4 (3), 3-16.
- Cobb, P. (2003). Competitive Intelligence through Data Mining. *Journal of Competitive Intelligence and Management*, 1 (3) 80-9.
- Calof, J.L., & Skinner, B. (1999). Government's Role in Competitive Intelligence: What's Happening in Canada? *Competitive Intelligence Magazine*, 2 (2) 20-3.
- Culnan, M. J. (1983). Environmental Scanning: The Effects of Task Complexity and Source Credibility on Information Gathering Behaviour. *Decision Sciences*, 14, 194-206.
- DCCI. (2003). *Economic Policy Paper on Access to Finance for SMEs: Problems and Remedies*. Washington D.C., USA: Dhaka Chamber of Commerce & Industries (DCCI) - The Center for International Private Enterprise (CIPE).
- Dishman, P.L., & Calof, J.L. (2007). Competitive Intelligence: A Multiphase Precedent to Marketing Strategy, *European Journal of Marketing*, 42 (7/8), 766-785.
- Dou, H. Dou, Jr. J. M., & Manullang, S. D. (2005). The Magic Triangle-How to Develop and Apply Competitive Intelligence in Developing Countries. *Technovation*, 24, 995-999. Retrieve 15/03/2012 from: <http://crrm.u-3mrs.fr/sfba/ile-rousse/2005/articles/dou.pdf>.
- Ericson, T. (2001). Sense Making in Organizations: Towards a Conceptual Framework for Understanding Strategic Change. *Scandinavian Journal*

of Management, 17 (1), 109-131.

- Fahey, L. (1999). *Competitors: Outwitting, Outmanoeuvring, Outperforming*. New York: Wiley.
- Festervand, T.A. (1988). The Sales Force as a Marketing Competitive Intelligence System. *Journal of Business and Industrial Marketing*, 3 (1) 53-59.
- Fiss, P. C., & Hirsch, P. M. (2005). The Discourse of Globalization: Framing and Sense Making of an Emerging Concept. *American Sociological Review*, 70, 29-52.
- Fleicher, C.S. (2004). Competitive intelligence education: competencies, sources, and trends. *Information Management Journal*, 32(2), 56-62.
- Fuld, L.M. (1995). *The New Competitor Intelligence: The Complete Resource for Finding, Analyzing and Using Information about Your Competitors*. New York: Wiley.
- Fuld, L.M. (2006). *The Secret Language of Competitive Intelligence*. New York: Crown Business.
- Gilad, B., & Gilad, T. (1985). *The Business Intelligence System: A New Tool for Competitive Advantage*. New York: Amacom.
- Gilad, B., & Gliad, T. (1988). *The Business Intelligence System: A New Tool for Competitive Advantage*. New York, Amacom.
- Groom, J. R., & David, F. R. (2001). Competitive Intelligence Activity Among Small Firms. *SAM Advanced Management Journal*, 66 (1), 12-20.
- Havenga, J. & Botha, D. (2010). Developing Competitive Intelligence in the Knowledge-Based Organization. Retrieved from:

<http://www.saoug.org.za/archive/2003/0312a.pdf> on: 03.09.2011.

- Hershey, R. (1980). Commercial Intelligence on a Shoestring. *Harvard Business Review*, 58, 22-24, 30.
- Herring, J. P. (1998). What is intelligence analysis? *Competitive Intelligence Magazine*, 1(2), 13-16.
- Hoffman, A., & Bazerman M. (2006). Changing Practice on Sustainability: Understanding and Overcoming the Organizational and Psychological Barriers. Forthcoming in *Organizations and the Sustainability Mosaic: Crafting Long - Term Ecological and Societal Solutions*. B. Hus ted (ed.) Cheltenham (Edward Elgar).
- Jahan, N. (2010), Ceramic industry of Bangladesh: A perspective from Porter's Five Forces Model, *Journal of Business and Technology*, Vol. V, Issue-02, pp 104-121.
- Jain, S. C. (1985). *Marketing planning and strategy* (2nd ed.). Ohio, Cincinnati: South-Western Publishing Company.
- Jaworski, B.J., Macinnis, D.J., & Kohli, A.K. (2004). Generating Competitive Intelligence in Organizations. *Journal of Market-Focused Management*, 5, 279-307.
- Kahaner, L. (1997). *Competitive Intelligence*. New York: Touchstone.
- Keegan, W. J. (1974). Multinational Scanning: A Study of the Information Sources Utilized by Headquarter Executives In Multinational Companies. *Administrative Science Quarterly*, 19, 411 –21.
- Kerlinger, F.N. (1986). *Foundation of behavioral research* (3rd ed.). New York, NY: CBS College.
- Klandermans, B. (1992). The Social Construction of Protest and

- Multioorganizational Fields, 77–103 in *Frontiers in Social Movement Theory, Analysis of News Coverage of Contentious Issues. Social Science Computer Review*, 15, 367–78.
- Koehler, K. G. (1989). Turn strategic vision into reality. *Small Business Reports*, 15-17.
- McGonagle, J. J., & Vella, Q. M. (2002). A Case for Competitive Intelligence. *Information Management Journal*, 36 (4), 35-40.
- Miles, M., & Huberman, M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook* (2nd ed.). CA, Thousand Oaks: Sage Publications.
- Montgomery, David B., & Charles B. W. (1987). Toward Strategic Intelligence Systems. *Journal of Marketing*, 2 (2), 41-52.
- Morgan, G. Frost, P. J., & Pondy, L.R. (1983). Organizational Symbolism. In L. R. Pondy, P. J. Frost, G. Morgan, and T. C. Dandridge (Eds.), *Organizational Symbolism*. Greenwich, CT: JAI.
- Muktadir, A. (2011), Current progress and future challenges of pharmaceutical industry, *The Financial Express*, available at: http://www.thefinancialexpressbd.com/more.php?news_id=143650&date=2011-12-20, accessed on: 01.07.2012
- Myburgh, S. (2004). Competitive Intelligence: Bridging Organizational Boundaries. *The Information Management Journal*, 38 (2), 46-55.
- Nasri, W. (2011). Competitive Intelligence in Tunisian Companies. *Journal of Enterprise Information Management*, 24 (1), 53-67.
- Pfeffer, J. (2005). Changing Mental Models: HR's Most Important Task. *Human Resource Management*, 44 (2), 123 – 128.
- Porter, Michael E. (1985). *Competitive Advantage*. New York: The Free

Press.

- Porter, M.E., & Kramer, M.R. (2002, Decmeber). The Competitive Advantage of Corporate Philanthropy. *Harvard Business Review*, 57-68.
- Priporac, C.V., Gastoris, L., & Zacharis, V. (2005). Competitive Intelligence Activity: Evidence from Greece. *Marketing Intelligence & Planning*, 23 (7), 659-69.
- Ring, P. S., & Rands, G. P. (1989). Sense Making, Understanding and Committing: Emergent Interpersonal Transaction Processes in the Evolution of 3M's Microgravity Research Program. In A. H. Van den Ven, H. L. Angle, & M. S. Poole (Eds.), *Research on the Management of Innovation: The Minnesota Studies*. New York, Ballinger: 337 -366.
- Rossie, P. H., & Freeman, H. E. (1993). *Evaluation: A systematic approach* (5th ed.). CA, Newbury Park: Sage Publications.
- Sawers, P. R. (1983). How to Apply Competitive Analysis to Strategic Planning. *Marketing NEWS*, 18, 11.
- Shaker, S. M. & Gembicki, M. P. (1999). *The warroom guide to competitive intelligenc.*, New York: McGraw-Hill.
- SME Foundation. (2010). *Synthesis Report-Sector-Wise Development*. Retrieved 15/19/2011 from: www.smef.org.bd/.../fact_sheet/fact.
- Snow, D., Burke, A. E., Steven, R. K., & Robert, B. (1986). Frame Alignment Processes, Micromobilization and Movement Participation. *American Sociological Review*, 51, 464 81.
- Snow, D., & Robert, B. (1988). Ideology, Frame Resonance and Participant Mobilization. *International Social Movement Research*, 1, 197–217.
- Snow, D., & Robert, B. (1992). Master Frames and Cycles of Protest. In A.

- Morris and C. McClurg Mueller (Eds.), *Frontiers in Social Movement Theory* (pp.133–55). New Haven, CT: Yale University Press.
- SCIP. (2008). *Society of Competitive Intelligence Professionals*. Retrieved from: www.scip.org/content.cfm?itemnumber¼2226&navItemNumber¼222, accessed on: 10. 09.2011.
- Tarraf, P., & Molz, R. (2006). Competitive Intelligence at Small Enterprises. *SAM Advanced Management Journal*, 71 (4), 24-35.
- Taylor, R. S. (1986). *Value-Added Processes in Information Systems*. Norwood, NJ: Ablex.
- Thomson, J. A. A., Strickland, A. J., & Gamble, J. E. (2008). *Crafting and Executing Strategy: The Quest for Competitive Advantages* (16th ed). NY: McGraw-Hill, Inc.
- Toit, D., & Muller, A. (2007), Competitive Intelligence as a Means to Enhance Competitiveness in Africa. *Management Insights*, 2, 34-52.
- Tung, R. L., & Aycan, Z. (2008). Key Success Factors and Indigenous Management Practices in SMEs in Emerging Economies. *Journal of World Business*, 43, 381-384.
- Weick, K. E. (1995). *Sense Making in Organizations*. Thousand Oaks, CA: Sage.
- Weick, K. E. (1999). Sense Making as an Organizational Dimension of Global Change. In Cooperrider, D. L. and Dutton, J. E (Eds.) *Organizational Dimensions of Global Change* (pp. 39–56). Thousand Oaks, CA: Sage.
- Westney, E., & Ghoshal, S. (1994). Building a Competitor Intelligence Organization: Adding Value in an Information Function. In T. J. Allen & M. S. Scott Morton (Eds.), *Information technology and the corporation*

of the 1990s: *Research studies* (pp. 430-453). New York: Oxford University Press.

Appendix:

Result of the Survey

Analysis by using χ^2 test

Result 1: Cognitive state of Managers in using CIS

The results of the following tables (Table 1-5) encompass the cognitive state of entrepreneurs and managers of Bangladeshi SMEs in using Competitive Intelligence Systems.

Table 1A
Knowledge About Competitors

| | Know competitors | | | | | Total |
|--|------------------|----------------|-------------------|-----------------------|-----------------|--------|
| | Do not bother | Do not know | Partially know | Approximately know | Exactly know | |
| Count | 2 | 3 | 25 | 31 | 39 | 100 |
| % within Analyze Competitors Activities | 2.0% | 3.0% | 25.0% | 31.0% | 39.0% | 100.0% |
| % within Know competitors | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| % of Total | 2.0% | 3.0% | 25.0% | 31.0% | 39.0% | 100.0% |

Table 1B
Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|--------|----|--------------------------|
| Pearson Chi-Square | 19.332 | 4 | .001 |

Table 2A
Necessity of Classifying the Competitors

| | Classification of Competitors | Total |
|--|----------------------------------|-------|
|--|----------------------------------|-------|

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| | No | Yes | |
|---|--------|--------|--------|
| Count | 9 | 91 | 100 |
| % within Analyze Competitors Activities | 9.0% | 91.0% | 100.0% |
| % within Classification of Competitors | 100.0% | 100.0% | 100.0% |
| % of Total | 9.0% | 91.0% | 100.0% |

Table 2B
Chi-Square Test

| | Value | df | Asymp. Sig (2-sided) |
|--------------------|--------|----|----------------------|
| Pearson Chi square | 80.020 | 1 | .000 |

Table 3A
Essentials of Competitors Analysis

| | Essentials of Competitors Analysis | | | | Total |
|---|------------------------------------|---------|--------|----------------|--------|
| | Strongly disagree | Neutral | Agree | Strongly Agree | |
| Count | 3 | 4 | 41 | 52 | 100 |
| % within Analyze Competitors Activities | 3.0% | 4.0% | 41.0% | 52.0% | 100.0% |
| % within Essentials of Competitors Analysis | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| % of Total | 3.0% | 4.0% | 41.0% | 52.0% | 100.0% |

Table 3B
Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|--------|----|-----------------------|
| Pearson Chi-Square | 11.409 | 3 | .010 |

Table 4A
Right Information to Take Decision at Right Time

| | Right information is essential to take decisions in right time | | | Total |
|---|--|-------|----------------|-------|
| | Neutral | Agree | Strongly Agree | |
| Count | | | | |
| % within Right Information to Take Decision at Right Time | | | | |
| % within Right information is essential to take decisions in right time | | | | |
| % of Total | | | | |

| | | | | |
|---|--------|--------|--------|--------|
| Count | 5 | 29 | 66 | 100 |
| % within Analyze Competitors Activities | 5.0% | 29.0% | 66.0% | 100.0% |
| % within Right information is essential to take decisions in right time | 100.0% | 100.0% | 100.0% | 100.0% |
| % of Total | 5.0% | 29.0% | 66.0% | 100.0% |

Table 4B
Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|-------|----|-----------------------|
| Pearson Chi-Square | 6.367 | 2 | .041 |

Table 5A
Right Information at Hand Achieving Organizational Goal

| | Right information Achieving Organizational Goal | | | Total |
|--|---|--------|----------------|--------|
| | Neutral | Agree | Strongly Agree | |
| Count | 5 | 35 | 60 | 100 |
| % within Analyze Competitors Activities | 5.0% | 35.0% | 60.0% | 100.0% |
| % within Right information Achieving Organizational Goal | 100.0% | 100.0% | 100.0% | 100.0% |
| % of Total | 5.0% | 35.0% | 60.0% | 100.0% |

Table 5B
Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|-------|----|-----------------------|
| Pearson Chi-Square | 8.240 | 2 | .016 |

Result 2: Linguistic state of Managers in using CIS

The results of the following tables (Table 6-9) encompass the linguistic state of entrepreneurs and managers of Bangladeshi SMEs in using Competitive Intelligence Systems.

Table 6A
How to Collect Information of Competitors

| | Sources of information of competitors | | | | | Total |
|--|---------------------------------------|----------------------|-----------|-----------|--------|--------|
| | Sales People | Published Sources | Customers | Suppliers | Others | |
| Count | 15 | 14 | 31 | 22 | 18 | 100 |
| % within Analyze Competitors Activities | 15.0% | 14.0% | 31.0% | 22.0% | 18.0% | 100.0% |
| % within Sources of information of competitors | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| % of Total | 15.0% | 14.0% | 31.0% | 22.0% | 18.0% | 100.0% |

Table 6B
Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|--------|----|--------------------------|
| Pearson Chi-Square | 56.305 | 4 | .000 |

Table 7A
How Often Analyze Competitors

| | How often Analyze competitors | | | | | Total |
|---|-------------------------------|----------|--------------|-----------|---------|--------|
| | Never | Annually | Semiannually | Quarterly | Monthly | |
| Count | 5 | 13 | 13 | 34 | 35 | 100 |
| % within Analyze Competitors Activities | 5.0% | 13.0% | 13.0% | 34.0% | 35.0% | 100.0% |
| % within How often Analyze competitors | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| % of Total | 5.0% | 13.0% | 13.0% | 34.0% | 35.0% | 100.0% |

Table 7B
Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|--------|----|--------------------------|
| Pearson Chi-Square | 22.953 | 4 | .000 |

Table 8A
Data Collection Techniques

| | Techniques to collect data | | | | | Total |
|---|----------------------------|--------------------|-----------------|----------------------------|--------|--------|
| | Observation | Commercial Reports | Market research | Computer assisted services | Others | |
| Count | 25 | 10 | 47 | 16 | 2 | 100 |
| % within Analyze Competitors Activities | 25.0% | 10.0% | 47.0% | 16.0% | 2.0% | 100.0% |
| % within Technique to collect data | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| % of Total | 25.0% | 10.0% | 47.0% | 16.0% | 2.0% | 100.0% |

Table 8B
Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|--------|----|-----------------------|
| Pearson Chi-Square | 59.780 | 4 | .000 |

Table 9A
Data Analysis tools

| | How do you Analyze Data | | | | Total |
|---|-------------------------|------------------------------|--------|--------|--------|
| | Observation | Statistical software package | Manual | Others | |
| Count | 30 | 23 | 32 | 15 | 100 |
| % within Analyze Competitors Activities | 30.0% | 23.0% | 32.0% | 15.0% | 100.0% |
| % within How to Analyze Data | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| % of Total | 30.0% | 23.0% | 32.0% | 15.0% | 100.0% |

Table 9B
Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|--------|----|-----------------------|
| Pearson Chi-Square | 70.037 | 3 | .000 |

Result 3: Conative state of Managers in using CIS

The results of the following table encompass the conative state of entrepreneurs and managers of Bangladeshi SMEs in using Competitive Intelligence Systems.

Table 10A
Problems to Implement CIS

| | Problems to Implement CIS | | | | | Total |
|---|---------------------------|-----------------------------------|-------------------------|---|--------|--------|
| | Lack of Skilled Personnel | Organization's structural problem | Time and Cost Constrain | Organizations overall Financial problem | Others | |
| Count | 7 | 20 | 54 | 15 | 4 | 100 |
| % within Analyze Competitors Activities | 7.0% | 20.0% | 54.0% | 15.0% | 4.0% | 100.0% |
| % within Problems to Implement CIS | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| % of Total | 7.0% | 20.0% | 54.0% | 15.0% | 4.0% | 100.0% |

Table 10B
Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|--------|----|-----------------------|
| Pearson Chi-Square | 61.866 | 4 | .000 |