

Chapter III

Research Methodology

3.0 Introduction

In the earlier chapter we presented the literature on Organizational Intelligence (OI), Organizational Performance (OP) and Organizational Learning (OL) and various organizational variables that construct them as discovered by researchers. The literature survey revealed a few interesting observations. OI, OL, and OP are affected by several variables (Appendix - 4). OL is the trigger for OI and OP. The literature captures nineteen different models of OI. The literature also provides a wide opportunity of studying the relationship between these key constructs of OI.

We decided to cover the research design and process, population and sample selection, Instrumentation planning (i.e., questionnaire preparation, scaling techniques, data collection methods), and Instrument design (i.e., model variables, model design, data analysis methods and model description)

We start this chapter with Introduction as given in Section 3.0 above. Section 3.1 explains the research design of the study. Section 3.1.1 explains how the research problems had been identified and research objectives are set. Section 3.1.2 explains the focus group discussions conducted to arrive at decisions on research methods. Section 3.1.3 explains the research objectives that evolved through focus group discussions. Section 3.2 explains research processes followed in the form of a flow chart. Section 3.3 explains the experimental design and

observational methods used for this research study. Section 3.4 explains sampling techniques. Section 3.4.1 explains sampling techniques and describes the sample population, 3.4.2 sample frame, 3.4.3 sampling procedures respectively. Section 3.4.5 explains scale selection and section 3.4.6 explains the reasoning behind sample size. Section 3.5 explains data collection methods followed for this research study. Section 3.5.1 explains respondent's profile. Section 3.5.2 explains the reasoning behind why a specific method of data collection is used and why other methods failed in this particular study. Section 3.5.3 explains the how the data was finally collected successfully. Section 3.6 explains questionnaire design and Section 3.7 discusses the relevance of the questionnaire. It also discusses the reasoning and the literature evidences. Lastly, section 3.8 draws a conclusion by summing up the chapter.

The research design and the process are common for both the parts of the objective. However, entire research methodology is about deciding on variables and capturing them through questionnaire. As we are interested in capturing the variables that construct organizational intelligence initial sections contribute to the first part of the objective. This logic is brought out in the Figure 3.1 – a block diagram that explains the research process flow.

3.1 Research Design

The research design explains various processes and activities that go into doing the entire research, such as problem definition, setting research goals, research process development, choice of research methods, experimental design, questionnaire design, sampling methods, data collection and analysis methods and the issues and how they had been solved to achieve the research objectives.

3.1.1 Research Problem

The origin of the research problem is through observation and experience. It started with identification of the problem from my 18 years of work experience as a techno-manager. We had been observing some organizations perform high where in some under-perform irrespective of supportive as well non conducive business environments. Organizations learn cognitively from the past experiences to strategize and better perform in the future. Organizations that learn must be having intelligence same as that of human beings. They learn to adapt, decide and get dynamic to grow like that of any bio organism. This intriguing feeling made me read literature to know about cognitive learning abilities of human beings, organizational intelligence, learning organizations and organizational performance continuously and recording observations from literature. The result of these readings is a set of questions. They are; (i) Do organizations have intelligence? (ii) If they have intelligence, can it be fine tuned by some parameters for better performance? (iii) If they do not have intelligence, then what is that which triggers high performing organizations? (iv) What are the variables that contribute to Intelligence, if it exists? (v) Can an organization achieve an edge over its competitors by fine-tuning these variables? If these questions can be answered by an exploratory research, we can fine tune some of the key parameters to enhance their competitive advantage of organizations as well improve performance levels. There definitely was a need to discuss about this interest with my colleagues who are professors of management education and research scholars of business management domain to understand the extent of the feasibility of this study.

3.1.2 Focus Group Discussions

Soon after, we conducted a Focus Group Discussion with twenty research scholars of Management who had an average experience of 20 years along with Professors of Management Education on the research problem thus identified. The following are key aspects taken for discussion. I presented the problem and

my interest for about 20 minutes which is followed by a group discussion and inputs from the members of the group. The key points were, Feasibility of exploring this problem, identifying the exploratory research Methods, Research objectives and sample selection possibilities.

The outcomes of the discussions indicated clearly that this could be an interesting and possible study to explore the intelligence of organizations; large multinational corporations with systems and processes well matured could be taken as samples, as most of these samples are perceived to be smart organizations in the group; research objectives could be defined to explore the presence of organizational intelligence in growing organizations; the research methods could be survey based observations from the top executives of the samples followed by factor analysis and multiple regression to explore the relationship between the variables that construct organizational Intelligence; the focus group agreed that this study can benefit organizations if I could measure the quotient levels of intelligence; the group discussed that by fine tuning some specific factors/variables an organization can identify and build an edge over its competitors - a competitive advantage in the market place.

These outcomes helped us immensely to define our research objectives and draw research road map with better clarity.

3.1.3 Research Objectives

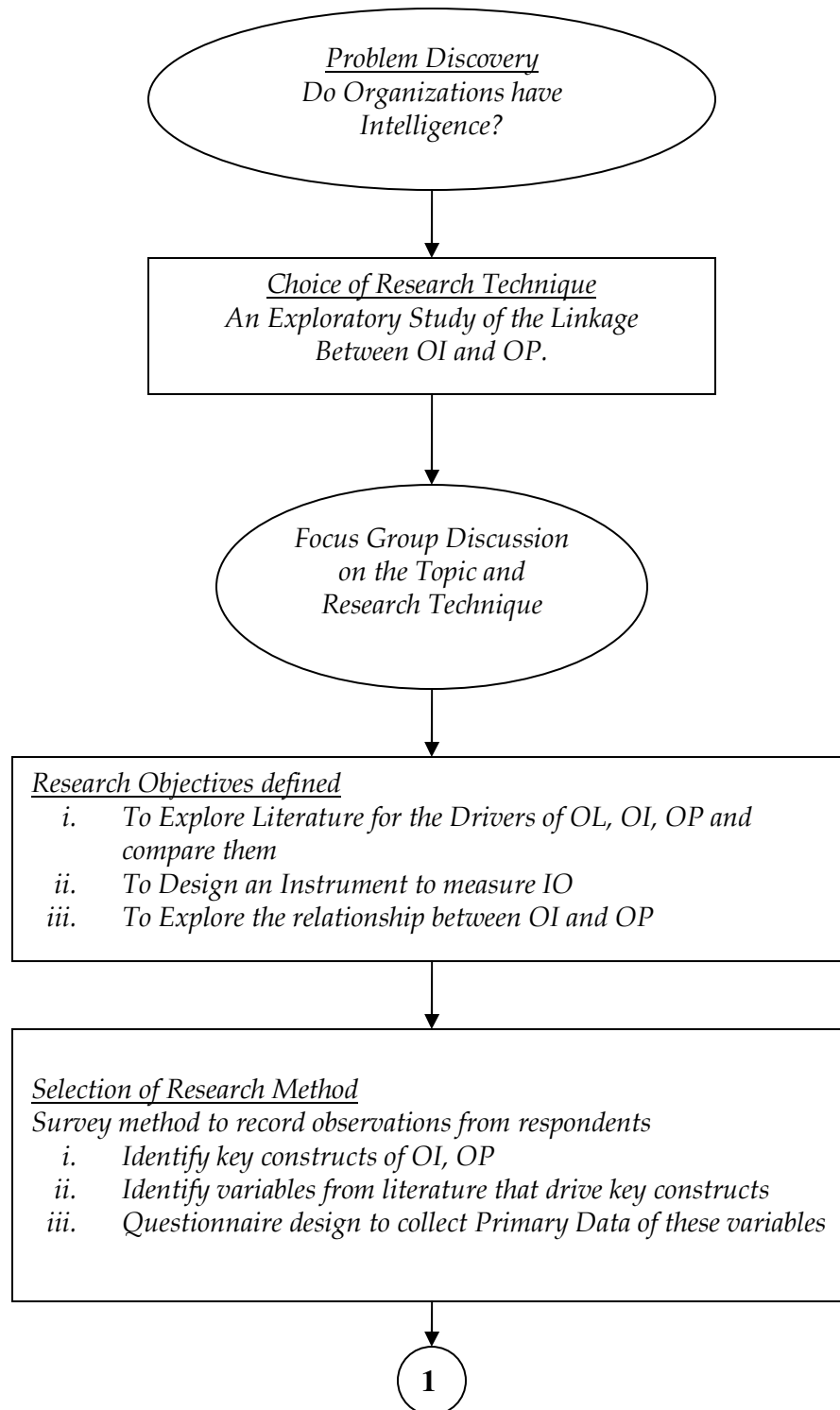
Interestingly, Literature study reveals that there are sufficient amount of research done on Knowledge Management (KM) and OP, and on the parameters that drive OP. However, there are very limited attempts are made to measure OI. Literature says OI aims at creating a learning organization, a market driven organization, and an innovative organization. However, the relationship between the drivers of OI and OP are not explored. Literature survey, gave us more than seventy variables that represent OI with a specific context and background. However considering the suggestions of leaders of leading corporate entities, we can choose the variables that can be used for measuring OI

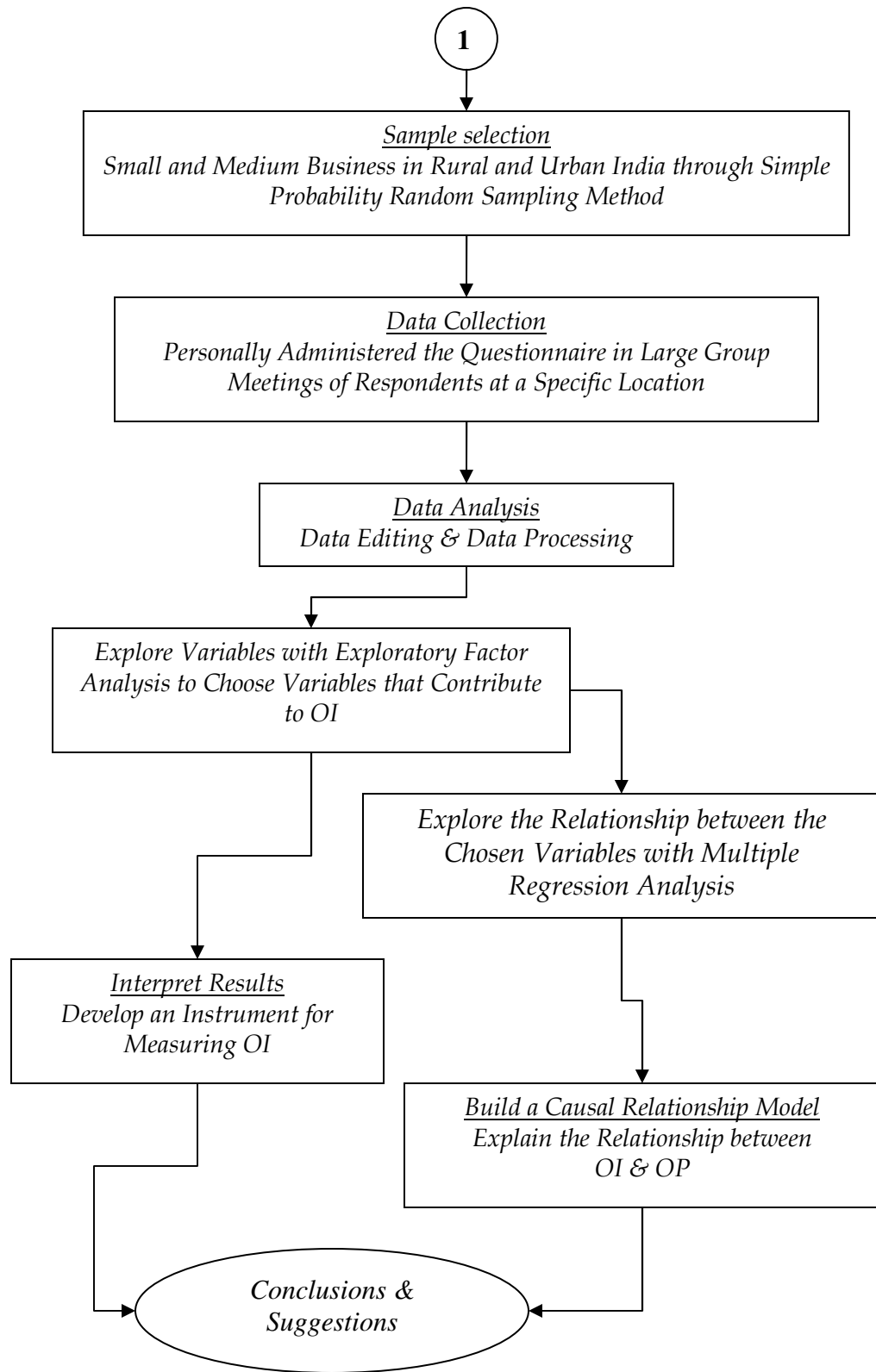
in our research work. And, identifying the parameters that drive OI and OP under any given business conditions and environment will enable us understand the linkage between OI and OP better. Thus, we decided to explore the variables to construct an instrument for measuring OI; to explore whether OI triggers OP; and to study the relationship between OI and OP. Thus the research problem is an exploratory study and the Research Objectives are defined to be; (i) To identify key variables that construct OI from the Literature; (ii) To develop an instrument to measure OI; (iii) To explore the linkage between OI and OP and design a relationship model

3.2 Research Process

The entire planning process of this research work is explained with the Flowchart (Figure 3.1) given ahead.

Figure 3.1 - Flow Diagram of Research Process





Part I

3.3 Experimental Design and Observations

This exploratory study is a survey based experimental research. The experiment here is to observe the behavior of organizations through 40 variables that reflect 8 different key aspects of organizations as seen from literature. These aspects are, Leadership and Culture, Rigor in Strategic Process Planning and Deployment, Health of Stakeholder Relationships, Knowledge and Information Management Capabilities, Financial performance, Systems efficiency, Business Process Efficiency and Product and Service Quality Imperatives. The relevance of the choice of the variables and the questionnaire design are discussed in section 3.7

Primary data of all the 40 variables were collected from the respondents who are business owners of businesses having head quarters located in cities as well in rural India. A questionnaire for primary data collection was designed. This questionnaire (Appendix-3) was administered to the respondents when assembled for a business training program at SP Jain Institute of Management and Research, Mumbai. A brief introduction on the research was given and the questions were explained along with the objectives to a batch of 115 respondents. A list of variables, their meanings derived from literature (Appendix - 4) was given to respondents along with the questionnaire for reference. This survey took 20 minutes to complete for each respondent. I was physically present in the room where respondents assembled till the data collection process got completed.

It is important to mention a key issue in the data collection process from the beginning. It would be ideal to collect the financial data from the officially published financial statements of the businesses chosen as samples. Practically it was difficult to collect authentic financial data from small and medium family owned businesses located at rural and urban parts of the country. Many a small and medium sized businesses did not like to reveal financial statements for confidentiality reasons. However they did not mind discussing the perceptions and understanding of financial status of their businesses orally. So we decided to collect the perceptual data on financial performances through the same questionnaire. The five questions on dependent variables such as, Financial

Returns, Market share growth, Business Valuation, Profit Growth, Rate of Business Expansion are collected from business owners along with other variables. These variables indicate the financial performance of organizations and a mandatory data to judge organizational performance. In this research study, we are considering only organizational performance is studied through financial performance assuming no variability in non financial performance parameters.

3.4 Sampling Techniques

We decided to study OI and OP of small and medium business in India located in and around Mumbai and Pune cities. A few large enterprises in India have created and applied their own business capability models such as Tata Business Excellence Model and Malcolm Baldrige Model for total quality Management and manufacturing and business excellence. Large enterprises manage business processes and systems efficiently. While sorting the data collected from such 24 multinational enterprises, we observed that these organizations have responded similarly for 80% of the questions. While discussing with the statistical experts, we understood that similarity of data points can affect the distribution of the data due to the reduction in the variations of data. On one hand, there is a statistical need to exclude influencing data points; on the other hand, there is an issue of more than 95% of samples of a population responding similarly. Thus we decided to consider only small and medium business with varied business processes and systems with different styles of leaderships and culture. Thus, we decided to choose SME (Small and Medium Enterprises) in and around Mumbai and Pune as samples of study. 115 samples managed by Indian families were chosen and the questionnaire (Appendix-3) was administered.

3.4.1 Sampling Techniques and Sample Population

We chose the samples from SME that are managed by family members, known as Family managed Businesses. These young respondents are the business owners

who assembled for a training program at S.P.Jain Institute of Management and Research (SPJIMR) located at Mumbai. These respondents aspire to understand their businesses better and take them ahead and interested in identifying the key parameters of their organizations that drive high performances and fine tune them to better positions with respect to the competitors and be competitively advantageous in the market place. They were keen on understanding the objectives of the research and the questions. The objectives of this research work and the interests of the respondents matched. Responses for the questionnaire designed demands complete understanding and macro overview of various business aspects from the respondents, who would preferably be responsible for business expansion, investments and business strategy formulation largely. They are either chief executive officers or managing directors of medium sized business organizations or business owners in the case of small and medium businesses.

3.4.2 Sample Frame

The sampling frame is identified to be the Small and Medium Business enterprises with business value ranging from 0.5 Crores to 5000 Crores of Rupees in India. Consultancy Firms owned by a person, smaller firms without proper business processes and work systems and entrepreneurial start up firms are excluded from the population of SME for this specific research work as the results would not apply to such businesses. These business owners were practically unable to respond to the questions in the questionnaire finding the variables and the concepts not applying to their businesses in the pilot study of the questionnaire to a set of 60 respondents. This enabled us to define the sample frame.

3.4.3 Sampling Procedure

Sampling procedure involved probability sampling. And samples were selected at random. The reason for selecting samples at random is the large size of the

population of SME in Indian Rural and urban areas. The reason is, S.P.Jain Institute of Management and Research considers the profile and aptitude of small and medium sized business owners from Rural and Urban sector as the participant for its training programs. This criterion of selection of participant gives us a set of respondents who are randomly selected from the pool of business owners. The selection of the participant (respondents & business owners) of Family Managed Business Program is not influenced by the size of the business, performance of the business owned by the learner. The selection is purely based on the merit of the participant in the learner selection process. Thus 'Simple Random Sampling' happens to be the sample selection method. Personal Businesses such as consultancy firms and entrepreneurial organizations are excluded from the sample as key aspects of established businesses such as standardized processes and work systems, and information and knowledge asset management planning do not exist. For the similar reasons, businesses with turnover less than 50 Lakhs of Rupees are also not considered. The respondents from these types of businesses could not fill in the questionnaire completely as they did not see relevance of the questions with their businesses. Entrepreneurial firms, consultancy firms and very small businesses without proper business processes and work systems are not part of the population. Thus the results of this research study are not applicable to such firms. Benefit of this research work will only enable established and systematically functioning businesses that may have an answer to the questions asked to their owners – the respondents of the questionnaire. Very small business owners could not answer most of the questions as they currently are not intended to strategize the business processes and systems and equip the organization with competitive edge over competitors. Innovators and entrepreneurs having start up firms tend to focus on profits and business expansion having high market opportunities. Their businesses are not fully established. Senior executives and Managers of medium businesses are also respondents of the questionnaire. The data is a collection of data from small and medium businesses. In Pilot study of data collection, from large corporations such as top 24 revenue making firms answered the questionnaire very similarly proving to be similar. Thus we chose medium and small sized organizations with varied background and random.

We can thus conclude, for a population of SME in India which has established businesses and business processes, simple random sampling procedure is employed for sampling. Thus every sample is given an equal opportunity of selection.

3.4.4 Scale Selection

Since the perception of respondents is studied, we decided to use the attitudinal scale - Likert scale. Each question is made as a closed ended question with options given ranging from 1 to 3 or 1 to 5 depending on the data to be collected. We felt it will be helpful to fetch exact attitudes and perceptions of the respondents towards various aspects of their enterprise. So that item analysis would evoke a wide response. It may also reveal the discrimination between positive and negative responses. Items with mixed response patterns and fuzzy from the final statement list are eliminated by this scaling method. A Likert item is simply a statement which the respondent is asked to evaluate according to any kind of subjective or objective criteria; generally the level of agreement or disagreement is measured. Often five ordered response levels are used, although many psychometricians advocate using seven or nine levels; a recent empirical study by John, (2008) found that data from 5-level, 7-level and 10-level items showed very similar characteristics in terms of mean, variance, skewness and kurtosis after a simple transformation was applied (John Dewas, 2008)¹⁹¹. Any grey answering is eliminated by Likert scale giving a bounded definition of each level of positive and negative attitudes towards the proposed question. This enables the respondent to answer in black and white leaving the fuzzy logic behind. The A standard Likert item is designed to be with "Strongly Disagree, Disagree, Neither Agree or Disagree, Agree, Strongly Agree" options. However the same is modified to suit the questions and the variable to be captured through that question. Hence there are 3 point scales, 5 point scales and 2 point

¹⁹¹ Dawes, John., (2008), "Do Data Characteristics Change According to the Number of Scale Points Used? An Experiment Using 5-Point, 7-Point and 10-Point Scales," *International Journal of Market Research*, Vol.50(1), p61-77

scales which act as dummy variables. There are biases in this scale such as, Respondents may avoid using extreme response options; agree with statements as presented; or try to portray themselves or their organization in a more favorable light. Designing a scale with balanced keying (an equal number of positive and negative statements) can obviate the problem of acquiescence bias, since acquiescence on positively keyed items will balance acquiescence on negatively keyed items, but central tendency and social desirability are somewhat more problematic. Given the distortions in this scale, it is chosen to be the optimum choice for data capturing and analysis as it is proven scale for a fairly accurate measurement model for an effective capturing of perceptions and attitudes.

3.4.5 Sample Size

We decided to collect data from the population of SME located in Rural and Urban India. There were finally 40 variables. For an exploratory study, to understand the relationship between OI and OP, it is necessary to do exploratory factor analysis amongst these variables and a regression analysis on those factors. For a satisfactory data analysis it is required to have data points that are at least 5 times the total number of variables. However, we could collect only 115 data points. Fortunately after doing factor analysis, we found from the factor loadings and the grouping of variables reduced the total number of variables from 40 to 12. We then required a minimum of only 60 data points for further analysis. However we had 115 data points which is sufficient for analysis. Hence we decided to continue analysis with the existing number of data points without collecting data anymore. Hair et al, (1995) says that if a researcher plans to use factor analysis in a study, factor analysis should not be done with less than 100 observations. Also, an increase in sample size will decrease the level at which an item loading on a factor is significant. For example, assuming an alpha level of 0.05, a factor would have to load at a level of 0.75 or higher to be significant in a sample size of 50, while a factor would only have to load at a level of 0.30 to be

significant in a sample size of 350 (Hair et al., 1995)¹⁹², which triggers a decision on a sample size that is justifiable balancing the trade off in the statistical analysis. This justifies the sample size of 115 for this research work.

3.5 Data Collection

Respondents' profile and data collection method in this research study is explained in this section.

3.5.1 Profile of Respondents

The respondents are owners of those businesses who have enrolled for family managed business management training program at SPJIMR, Mumbai. Profiles of respondents have age ranging from 20 to 30 and graduates and in businesses at least 6 months to 12 years. Age and the total experience are chosen to be 2 more variables added to the 40 variables while doing analysis. We expected that parameters such as "age and total experience" might affect the way the response was given as the questionnaire studies the perception of business owners on their businesses. We felt, it will be appropriate to include these variables in analysis.

3.5.2 Data Collection Methods

We tried many modes of data collection methods. The percentage of success was very low.

- i) **Email survey:** The questionnaire sent as an email attachment reached spam folders of most of the respondents. This method did not fetch any response from the respondents as they could not look at the questionnaire. From those who went through the

¹⁹² Hair, J., Anderson, R., Tatham, R., & Black, W., *Multivariate Data Analysis* (4th ed.). Upper Saddle River, NJ, Prentice Hall; 1995.

questionnaire, there were many doubts and queries regarding variable definitions. The discussion through email and chat took place without yielding results. This was also very expensive in terms of time. We found that most rural business owners do not use email regularly.

- ii) **Telephonic Survey:** In this method, it was very difficult to get the appointment of business owners personally on telephone and explain and record the responses. Telephonic conversations got disconnected often. Getting them again on telephone was tough. This method was very expensive in terms of time and money.
- iii) **Personal interviews:** This method too demanded lot of time and energy. Traveling across to different industries taking appointments did not work out successfully as business owners moved out on emergency. Many an appointments did not fetch the data we planned to get. This method consumed a lot of time in spite of having all the materials ready and me being present physically to administer the questionnaire. Work schedules could not permit me to travel and collect data personally.
- iv) **Internet survey:** Using an internet portal for surveying was not effective for this questionnaire, unless I design a website myself for the same which demanded skills and time. We explored the outsourcing options of web designing and collecting data. Also we found, business owners were not comfortable in revealing anything about their businesses through such websites and emails. Earning their trust for getting true data became essential aspect of data collection.
- v) Response rates were poor at the cost of time by all of these methods. So, the learning from the above experiences, made us decide to meet all business owners in a specific location at the same time, explain about the research and questionnaire and collect data. We decided this method will help me earn the trust of the respondents to reveal about their business realities. We planned to meet them and collect the data. Administering the

questionnaire personally to the respondent group at a specified location seemed feasible.

3.5.3 Self Administration of the Questionnaire

Questionnaire was personally administered and I was physically present to explain and clarify doubts if any. About the research work and the variables that are being captured from the respondents are explained briefly to avoid ambiguity and create interest amongst the respondents to fill the questionnaire. Total time taken by the respondents was 30 minutes including the prelude discussion and the doubts the respondents had about the names of the variables and definitions. A copy of Appendix -4 is given as a reference to the respondents while responding.

Part II

3.6 Questionnaire Design

Continuous search of literature on various performance measurement and business excellence models reveal various parameters that construct the questionnaire. It is then decided to explore various parameters that affect organization and performance. The queries raised and discussed in those focus group discussions at different stages of this research work are listed in Table 3.1. Literature Survey reveals that there are a few key aspects that drive the performance and growth of organizations. It is worthwhile to explore the drivers of these aspects in detail. There are many large multinational corporate houses explore themselves often to accelerate their growth and performance. The Literature study of research articles and business excellence models of successful enterprises of India explore various factors that drive performance and growth. Discussion by focus group on the literature study on OP, OI and OL lead to discussions on 'How organizations achieve performance and growth? What are the broad factors that drive performance and growth? The key points are listed below, under 11 different categories for better understanding for questionnaire

design. The exploratory questions against each of these aspects of organization are listed below.

(I) **Leadership Capability:** How do leaders set and deploy organizational values, short-and longer-term directions, and performance expectations? How do leaders communicate organizational values, directions, and expectations through your leadership system, to all employees, and to key suppliers and partners? How do leaders ensure two-way communication on these topics? How do leaders create an environment for empowerment, innovation and organizational agility? How do they create an environment for organizational and employee learning? How do they create an environment that fosters and requires legal and ethical behavior?

(II) **Growth of organizational Performance:** How do leaders review organizational performance and capabilities? How do they use these reviews to assess organizational needs? Are Competitive performance and progress related to short-and longer-term goals? How do leaders use these reviews to assess organizational ability to address changing organizational needs? What are the key performance measures regularly reviews by your senior Leaders? How do leaders translate organizational performance review findings into priorities for continuous and breakthrough improvement of key business results and into opportunities for innovation? How are these priorities and opportunities deployed throughout the organization? How does an organization evaluate the performance of senior leaders and board members? How are these performance review findings used to improve leadership effectiveness?

(III) **Development of Strategy:** What are the key steps and people in strategic planning process in any organization? What are short- and longer-term planning time lines in strategic planning process of the organization? How does strategic planning address the key factors listed below? How does the organization collect and analyze relevant data and information to address these factors; customer and market needs, expectations, and opportunities competitive environment, capabilities relative to competitors, Technological and other key innovations or

changes that might affect products and services and operations, strengths and weaknesses, including human and other resources, opportunities to redirect resources to higher priority products, services, financial, societal and ethical, regulatory, and other potential risks, Changes in the national or global economy, partner and supply chain needs. What are the key strategic objectives and timetable for accomplishing them? What are the most important goals for these strategic objectives? How do strategic objectives address the challenges identified in response to this parameter in your organizational profile? Do strategic objectives balance short- and longer-term challenges and opportunities and the needs of stakeholders?

(IV) *Deployment of Strategy*: How does an organization develop and deploy action plans to achieve key strategic objectives? How does it allocate resources to ensure accomplishment of action plans? How does it ensure that the key changes resulting from action plans can be sustained? How to determine the changes in products and services, customers and markets, and operations, short and long term strategic plans for human resources planning? What are the key performance measures or indicators for tracking progress on action plans? How does the organization get aligned with the planning? How does an organization ensure the coverage of all deployment areas and stakeholders with a specific measurement system? How do organizations determine key performance projections for both short and longer-term planning time horizons? How does it compare projected performance with competitors' projected performance? How does it compare key benchmarks, goals, and past performance across competitors?

(V) *Customer Oriented Market Analysis*: How does an organization determine customers, customer groups, and market segments? How does it include customers of competitors and other potential customers and markets in this determination? How does it determine key customer requirements and expectations and their relative importance to customers' purchasing decisions? How does it use relevant information from current and former customers, including marketing and sales information, customer loyalty and retention data,

win/loss analysis, and complaints? How does it use this information for purposes of product and service planning, marketing, process improvements, and other business development? How do managers keep up learning in tandem with business needs and directions? How do organizations build relationships to acquire customers, to meet and exceed their expectations, to increase loyalty and repeat business, and to gain positive referrals? What are the key access mechanisms for customers to seek information, conduct business, and make complaints? How do they determine key customer contact requirements for each mode of customer access? How do they ensure that these contact requirements are deployed to all people and processes involved in the customer response chain? What is the complaint management process? How do organizations ensure that complaints are resolved effectively and promptly? How are complaints aggregated and analyzed for use in improvement throughout organization, vendors and by business partners? How does an organization determine indicators and design its scale for studying trends of customer satisfaction levels? How does it compare such analyses with competitors' customer orientation levels? How an organization decides on the indicators of customer-perceived value, customer loyalty & retention and positive referral, product and service performance that are important to customers? How does an organization compare these results with that of competitors? How do organizations determine customer satisfaction and dissatisfaction? How do these determination methods differ among customer groups? How does it ensure that measurements capture actionable information for use in exceeding customers' expectations, securing its future business and gaining positive referrals? How do organizations use customer satisfaction and dissatisfaction information for improvement? How do organizations follow up with customers on products, services, and transaction quality to receive prompt and actionable feedback? How do organizations obtain and use information on customers' satisfaction with respect to that of competitors and industry benchmarks? How do they develop approaches to determine customer satisfaction of business needs and directions?

(VI) *Information and Knowledge Management:* How do organizations collect information and make them accessible to stakeholders? How do they decide on Information Infrastructure reliable, secure, and user friendly? How do organizations orient information systems towards business needs and goals? How do organizations accomplish the process of information collection, transfer of employee knowledge, Customer, Partner and supplier knowledge? How do organizations identify and share best practices? How do organizations manage integrity, timeliness, reliability, security, accuracy and confidentiality of data?

(VII) *Systems planning and Efficiency:* How do organizations manage work and jobs to enhance cooperation, Initiative, empowerment, innovation and organizational culture? How do they achieve agility to keep pace with changing business needs? How do work systems capture and capitalize on the diverse ideas, cultures, and thinking employees and the communities such as customer communities and employee clubs? How do organizations achieve effective communication and skill sharing across work units, jobs, and locations? How do employees' performance management systems and feedback mechanisms support high performance, customer and business focus? How does an organization systematize compensation, recognition and reward and other incentive practices to reinforce high-performance work with a customer and business focus? How do Human resource systems identify characteristics and skills needed by potential employees? How do they recruit and retain new employees? How do organizations accomplish effective succession planning for leadership and key management positions? How do they plan and manage effective career progression for all employees throughout the organization? How do employee education and training contribute directly to the achievement action plans? How do organizations find out the relationship between employee education, training and development address the needs of organizational performance improvement and technological change? How do organizations balance between short and long term goals through employee training and development, learning and career progression? How do employee education, training, and development address the needs of employee orientation across

diversity, ethical business practices, and knowledge management practices? How do organizations seek and use inputs from workers, managers and on employee skill betterment needs? How does the organization go about employee education and training? How do the delivery mechanisms get designed? What parameters of an organization decide the delivery modalities of training? How do you reinforce the use of new knowledge and skills on the job? How does an organization evaluate the effectiveness of employee training? Does it take into account the performances of individual and the organization as a whole? How does an organization motivate employees to develop and utilize their full potential? What are the mechanisms of an organization to help employees develop careers in their organization?

(VIII) *Human Resource Planning, Management and Maintenance:* How does an organization deploy the plans for employee wellness and care policies? How does it improve workplace health, safety, security, and ergonomics? How do employees take part in improving them? What are the key indicators of these employee care aspects in an organization? What are the significant differences in workplace factors and performance measures or targets if different employee groups and work units have different work environments? How does the workplace prepared for managing emergencies and disasters? What is the level of preparedness to ensure business continuity? How does an organization determine key factors that affect employee well-being, satisfaction, and motivation? How are these factors segmented for a diverse workforce and for different categories and types of employees? How does an organization plan for employee benefits? How does it plan for catering diverse workforce and different types of employees? How does factors such as employee retention, absenteeism, grievances, safety, and productivity, to assess and improve employee well-being, satisfaction, and motivation used for planning employee motivational? How does an organization relate assessment of the observations of these factors for better business results, better work environment and employee support climate?

(IX) *Process Planning Efficiency:* How does an organization determine its key value creation processes? How do these processes create value for the

organization, customers, and key stakeholders? How do these value creating processes contribute to profitability and business success? What are the key requirements from customers, suppliers, and partners to create value? How does an organization design these processes to meet all the key requirements? How does an organization decide on incorporating new technology and organizational knowledge into the design of these processes? Does an organization incorporate cycle time, productivity, cost control and other efficiency and effectiveness factors into the design of these processes? How do they implement these processes to ensure meeting process design requirements? What are the key performance indicators used for the control and improvement of these value creating processes? How do organizations manage between the day to day operations and meeting process requirements for value creations? How is in-process measures used in managing these processes? How do organizations effectively minimize overall costs associated with inspections, tests, and process or performance audits? How does an organization prevent defects, rework and warranty costs effectively? How does an organization improve value creation processes to achieve better operational performance, reduce variability and improve products and services? How effectively the process improvements are shared with other organizational units and processes? How does an organization determine its key support processes to value creating processes? How do organizations select, collect, align, and integrate data and information for tracking daily operations and for tracking overall organizational performance? How do they use this information to support organizational decision-making and innovation? How do they effectively use comparative information to support operational and strategic decision-making and innovation? How do they use sensitive performance measurement systems to manage unexpected changes in organizations? What kinds of analyses they perform to support performance reviews and strategic planning? How do the results get communicated to work group and functional level operations to enable effective decision making?

(X) **Business Results:** What kinds of indicators of financial performance of an organization? Are there measures of financial returns and economic value of an

organization, market share or position, business growth and new market entries? How does an organization measure performance of work systems and effectiveness of employee learning and skill development, satisfaction and well being and operational performance, organizational strategy and action plans?

(XI) *Organizational Governance and Social Sensitivity*: How does an organization determine on the indicators of ethical behavior of stakeholders and decide on scales for measuring fiscal accountability, compliance of regulatory policies effectively? How does an organization accounts for the actions of Management? How does an organization protect the interests of stakeholders and stockholders? How does an organization address the impacts on society from its products, services, and operations? What are the key compliance processes, measures, and goals for achieving and surpassing regulatory and legal requirements? What are the key processes, measures, and goals for addressing risks associated with products, services, and operations? How does an organization anticipate public concerns with current and future products, services, and operations? How does it get prepared for these concerns in a proactive manner? How does an organization ensure ethical behavior in all stakeholder transactions and interactions? What are the key processes and measures of indicators for monitoring ethical behavior throughout the organization, with key partners, and in governance structure? How does an organization actively support and strengthen communities? How do a senior leader and employees contribute to improving these communities?

Evolution of the Questionnaire: The questionnaire with 165 questions picked and chosen from the above reflected from literature were sent across to senior management executives of 12 different large corporate houses chosen from the list of top 50 large enterprises of India. This questionnaire is given as Appendix-1. Only 6 people responded with the comments that the questionnaire had similar and redundant queries. Then we decided to prioritize the questions and removed those redundant questions that lead to similar answers from respondents. Another 24 corporate houses were chosen from the population and the second list was administered. This questionnaire having 153 questions

(Appendix-2). Only 12 organizations responded this time. Respondents said, they could not respond at one stretch as it was time consuming. It was then decided to reduce the number of questions drastically to something around 50. We called for focus group discussions once again, with the experts from the domain of organizational theory and research methodology on the '*priority of questions*'. After ranking all the questions, first 40 questions were chosen. All these 165 questions emanate from various research articles of different journals of Social Science, Psychology, Economics, Information technology and Management Science. The rationale behind those final 40 questions (Appendix-3) thus chosen have a relevance from the Literature which is discussed in detail in the next section. These forty variables form the basis for the instrument design. These 40 variables are also supported by the literature as discussed in the next section.

The questionnaire thus designed is structured and undisguised. The questions are designed to test various aspects of business management such as - attitudes towards quality, intentions towards employees, awareness about competitors and consumers, characteristics of socioeconomic conditions of the market and behavior of leaders. They are designed to fetch direct responses; they are closed ended questions.

3.7 Relevance of the Questionnaire

Variable selection and exact question design evolved from the literature which is being discussed as relevance of questions. In the previous chapter it is mentioned, "There are common constructs of OL, OI and OP; they are, Leadership and Culture, Rigor in Strategic process Planning and deployment, Health of Stakeholder Relationships, Knowledge and Information Management capabilities, financial performance, Systems efficiency, Business Process Efficiency, Product and service Quality". Literature study reveals that there are 8 key constructs being common and repeatedly discussed by most researchers and from the table that compare constructs of OL, OI and OP (Table 2.1).

Initially a questionnaire (Appendix-1) containing 165 questions were designed and further reduced to 153 questions (Appendix-2) by eliminating similar questions. From this question set, 40 questions were selected. The paragraphs below list all these 40 variables and their relevance from the literature. Final version of the questionnaire thus formulated is given in Appendix-3.

1) A multinational company can develop and sustain ethical capability through the related processes of transformational leadership, organizational learning, and human resource management (Buller et al, 1999)¹⁹³. This clearly indicates how interest of leaders in encouraging accountability and responsibility for organizational learning as a whole and incorporate values in business processes. This aspect is studied through the question "How many times in the last 6 months you have taken decisions to change critical business processes, considering the learning from the past in the organization?"

2) Effectively balancing the needs of various stakeholders can lead to enhanced corporate reputation, increased solidarity, commitment, loyalty, and productivity of employees, and lower costs in maintaining complex networks of suppliers, customers, agents and geographically dispersed employees, particularly in globalization strategies along with an organization's ability to engage in ongoing, and constructive dialogue with its various stakeholders can be an important source of competitive advantage (Buller et al, 1999)¹⁹⁴. This indicates highly performing organizations have capable leaders who assess stakeholder needs of business units periodically. This can be studied through the question "How often you calculate the needs of stakeholders and business markets in your business unit?"

3) Assessing performance with key structural elements of a typical performance measurement system enables higher performance of customer

¹⁹³ Buller et al, (1999), " Creating and Sustaining Ethical Capability in the Multi-National Corporation", Journal of World Business, Vol.34(4), p326-343

¹⁹⁴ Buller et al, (1999), " Creating and Sustaining Ethical Capability in the Multi-National Corporation", Journal of World Business, Vol.34(4), p326-343

centered business processes (Hatten et al, 2001)¹⁹⁵. This indicates it is worthwhile studying whether learning leaders are interested in incorporating the findings of the employee performance into practice? This can be studied through the question “Have you taken decisions of changing roles of employees and business processes based on their performance to improve business performance?”

4) Best firms possess a product innovation strategy that consists of the business' goals for product innovation and how the new product effort ties into its overall business goals. They have a portfolio management system that helps leadership teams allocate resources to the right areas and right projects. It is stated that there is a positive climate and culture for innovations in top-performing business (R.G.C et al, 2007)¹⁹⁶. It is relevant to explore if business units can create & deploy opportunities for innovations in business Practices to meet business goals. This is studied through the question “How many instances were there in last 3 months, where you had encouraged your employees to innovate business practices and activities to meet business goals?”

5) Emotional Intelligence affects leadership behavior of the project leaders in the organization. Emotional Intelligence of leaders generates delegating, open communication, and proactive behavior, which can bring positive outcomes to the organization (Sunindijo et al, 2007)¹⁹⁷. This Article indicates clearly it is worth exploring the good leaders stay proactive in sensing the opinions and concerns of employees and society about the products and services through open communication. This is studied through the question “How early and quickly you are able to sense the concerns of employees and society about your products and services? (Select one) within 2 months? Within 1 month? Within 15 days? Within 1 week?”

¹⁹⁵ Hatten et al, (2001), “Why and How to Determine Performance Measurement”, Journal of Organizational Excellence, 2001, Vol.20(4), p59-73

¹⁹⁶ R.G.C et al, (2007), "Winning Businesses in Product Development: The Critical Success Factors", Research Technology Management, Vol.50(3), p60-61

¹⁹⁷ Sunindijo et al, (2007), “Emotional Intelligence and Leadership Styles in Construction Project Management”, Journal of Management in Engineering 2007, Vol.23(4), p166-170

6) The aim of an organization is to go beyond the satisfaction of stakeholders by meeting their needs and expectations-as this goal is limited to specific transactions or time periods. The challenge for organizations is to reach a new frontier of trust among its stakeholders, which makes it possible to endure the hard times, and continually to explore, with success, emerging opportunities (Dervitsiotis et al, 2003)¹⁹⁸. This article indicates studying - the Presence of processes and scales in an organization to measure and determine the satisfaction and dissatisfaction of customers and employees and the cordial relationship between them - may yield clues on performing organizations. This is studied through the question “How frequently you measure the stakeholder relationship satisfaction in your business unit?”

7) Rapid technical progress and frequently changing market conditions force employers to manage labor force flexibly “Flexicurity”, the combination of labour market flexibility and security for employees has become a much praised policy in Europe. Employee security is encouraged in manpower management and welfare (Bekker et al, 2008)¹⁹⁹. This indicates its worthwhile studying Interest of organization to protect health, safety and security of its employees (such as, health schemes, checkups, safety measure trainings and good ergonomic arrangements for work) that may lead to OP. Thus us studied through the question, “Where will you rank your organization for its interest to protect health, safety and security of its employees (such as, health schemes, checkups, safety measure trainings and good ergonomic arrangements for work). (Rank between 1 to 7. Lowest rank is 7. Highest 1)”

8) Design of dashboard for business continuity management system (BCMS) can be constructed using resiliency capability levels. This customer centric dashboard ensures the ability to track and baseline the present capability level and focus on the activities that would help leapfrog into the higher capability

¹⁹⁸ Dervitsiotis et al, (2003), “Beyond Stakeholder Satisfaction: Aiming for a New Frontier of Sustainable Stakeholder Trust”, Total Quality Management & Business Excellence, Vol.14(5), p515-529

¹⁹⁹ Bekker et al, (2008), “Flexicurity – a European Approach to Labour Market Policy”, Intereconomics, Vol.43(2), p68-111.

levels; it also provides guidance for governance (Sheth et al, 2008)²⁰⁰. This paper motivates the interest to explore organizations that are customer centric and keen on business continuity in dire circumstances. This can be studied with the question, “How many times in last three months your business unit met crisis and managed it effectively to continue business?”

9) A study (Huang et al, 1997)²⁰¹ investigates the impact of participative management on the behavior of employees and the financial effectiveness of the enterprise. Analysis reveals that the quality control circles (QCC) and profit sharing amongst employees have a positive impact on organizational effectiveness, which is seen in profit and revenue growth rates. Where in, employee stock-ownership plans and grievance-handling systems have negative effects on both performance indicators - employee behavior and organizational effectiveness. It is worthwhile studying the performance of such profit sharing organizations for this research to explore Capability and interest of organization to support and share profits with employees via services, benefits and policies. The question that is designed to explore this aspect is, “How many different types of profit sharing modalities are in operation for employee benefits”

10) A research study (Oxenfeldt et al, 1981)²⁰² presents a model of competitor analysis that provides operating executives with an action-oriented framework for preparing long-term plans and developing business strategies with competitor orientation contrasted with customer orientation background and current competitive analysis practices. This study triggers the interest to explore Capacity of organization to compare itself with competitors’ levels of customer and stakeholder satisfaction; their best practices and incorporate them in strategy formulation. This is studied with the question “How often Competitor comparison & analysis is done, for the aspects of products, customer satisfaction and best practices?”

²⁰⁰ Sheth et al, (2008),” A Dashboard for Measuring Capability When Designing, Implementing and Validating Business Continuity and Disaster Recovery Projects”, Journal of Business Continuity & Emergency Planning, Vol.2(3), p221-239

²⁰¹ Huang et al, (1997), “The Effect of Participative Management on Organizational Performance: The Case of Taiwan”, International Journal of Human Resource Management, Vol.8(5), p677-689

²⁰² Oxenfeldt et al, (1981), “Competitor Analysis: A Prize-Centered Approach”, Management Review, Vol.70(5), p23-30

11) This research study (Issam et al, 2006)²⁰³ discusses quality function deployment (QFD) technique is used in the formulation process to provide the basis for selection between options in each of the formulation stages. The model proposed consists of six stages starting from the business strategy formulation, functional strategy formulation, manufacturing priorities formulation, the generation of action plans and the suggestions of the detailed tasks of each action plan, and ending up with the evaluation of the developed strategy. QFD capture software is used to form the matrices needed for the proposed model. This study indicates that it is worth exploring the interests of an organization to formulate methodical strategic formulation and deployment for business results. At a micro level, it is worth studying the Ability of leaders to decide key roles and responsibilities for the execution of action plans along with resource, which will indicate the ability to plan the minute details for strategic planning in an organization. The question that explores this aspect can be, “What are the key factors you consider while making action plans for your SBU (Strategic Business Unit)?” With answers such as, Roles and responsibilities definitions, resource allocation planning, action plan execution duration, crisis anticipation ability, disaster management planning. Respondents can be asked to select all of those, which are considered.

12) A study on customer valuation in marketing and strategy formulation (Wyner, Gordon, 1996)²⁰⁴ offers guidelines on how to use the concept of customer valuation in formulating marketing strategies. The author defines customer valuation as a definite economic component of lifetime value and reveals the worth of integrating these components into planning. This study indicates it might be beneficial to study the Ability of an organization to collect complete details on customers, market, competitors and use them to deploy opportunities, as there can be a valuation done on these aspects and the results will yield insights for business decisions. The question designed to explore this aspect can

²⁰³ Issam et al, (2006), “Improvement of Organizational Efficiency and Effectiveness by Developing a Manufacturing Strategy Decision Support System”, Business Process Management Journal, Vol.12(5), p588-607

²⁰⁴ Wyner Gordon, (1996), “Customer valuation: Linking Behavior and Economics”, Marketing Research, Vol.8(2), p36-38

be, “How frequently you collect data about markets and customers to use them in strategic planning processes?”

13) This study (Lee et al, 2007)²⁰⁵ explores the factors to be considered by customers while choosing telecommunication services, identifies strategic dimensions in formulating telecommunication service selection strategy, and classifies companies that provide services into strategic groups. Finally, the characteristics of telecommunication service strategy of each strategic group are examined. . The purpose of this study is to analyze organizational strategy in the viewpoint of technology selection for strategy formulation and deployment. This study indicates it is worth exploring Capability of organization to incorporate technological changes and innovations in planning process. The question exploring this aspect can be, “when last your team included technological changes and innovations in planning process?”

14) A brief case study (Partridge, Amy Bock, 2006)²⁰⁶ on tracking the progress of action plans yielding better business results. Besides the intended outcome, there are by-product benefits to the clients in addition to better business performance for the firm that tracks progress of action plans periodically. It is worth studying the Competency of organization to track the progress of action plans. The question that explores this aspect can be, “How often you find the success or failure of the action plans, while the plan is getting executed?”

15) This study (Wu Zhong et al, 2008)²⁰⁷ says that pursuing the maximization of enterprise's value is the same as pursuing the maximization of stakeholders' benefits under the balanced circumstance. The maximization of enterprise's value and the maximization of stakeholders' benefits are consistent. They comprehend financial object from two aspects of financial essence. It is worth studying Ability of organization to strike a balance the trade off between the goals of organization

²⁰⁵ Lee et al, (2007), “Factors Affecting Companies’ Telecommunication Service Selection Strategy”, *Omega*, Vol.35 (5), p486-493

²⁰⁶ Partridge, Amy Bock, (2006), “Developing Performance Metrics and Detecting Outliers for Management Control”, *Journal of Revenue & Pricing Management*, Vol.5(2), p102-108

²⁰⁷ Wu Zhong et al, (2008), “Enterprise's Value and Stakeholders' Benefits: The Financial Objects, Which Lead to the Same Goal”, *China-USA Business Review*, Vol.7(2), p44-48

and stakeholder benefits at any stage. This can be explored with the direct question, “What is the level of clash between the organizational goals and stakeholder benefits? Rank between 1- 7. (Most clash -7, least clash -1) ”

16) This article (Turner, Paul et al, 1991)²⁰⁸ focuses on how the different types of information from Environmental analysis, Market analysis, Competitive advantage and Strategic options, are managed when linked together. The quest for a winning business strategy will force a firm to match its internal capabilities to external market opportunities. Strategic decision making will involve firms moving from a broad span of options to a narrower scenario through a process based on iteration, specialist functional inputs and the relationship between corporate and business unit goals. The subsequent ability of the firm to compete will depend on, identification of competitive forces and competency of the firm to mobilize resources in any given span of time. Information analysis skills and knowledge deployment are the keys to grow competitive. Such a perspective induces interest in studying the competency of organization to communicate and incorporate results of organizational level information /data analyses to work group and functional level daily operations. This can be studied with the question, “How frequently you collect data about your organization for planning business functions and activities?”

17) Effective Information usage depends on how effectively stakeholders use the information from a stable information and communication infrastructure. Information and communication technology research on the tools available for data collection, processing for accurate and correct information for decision making affect stakeholders’ decisions at various times (Barbour, R. H, 2006)²⁰⁹. This study indicates, it may be interesting to study the Competency of organization to ensure the quality, availability and accessibility of information for stakeholders. This can be explored with the question, “How quickly, continuously and accurately information can be accessed in your department for

²⁰⁸ Turner, Paul, (1991), “Using Information to Enhance Competitive Advantage--The Marketing Options”, *European Journal of Marketing*, Vol.25(6), p55-65

²⁰⁹ Barbour, R. H, (2006), “Stakeholders’ Safety in Information Systems Research”, *Australasian Journal of Information Systems*, Vol.14(1), p43-54

decision-making?” This question was specifically tested by designing and implementing digitization of library in symbiosis university, Pune. Information systems architecture was designed and implemented. The implementation of this information system implementation for digitizing the library was not tested to find out whether there had been any significant change in the performance of the organization could not be tested as there was only one sample was being tested. However the feedbacks from library on the efficiency of locating articles and books improved incrementally. (Anuradha et al, 2009)²¹⁰.

18) The article (Jackson, Patrice, 2007)²¹¹ suggests a model for knowledge asset management (KAM). In the knowledge economy people are the most valuable asset of an organization, however, a methodology that correlates their value to organizational performance is lacking. Knowledge from experience can be stored and managed which can link to organizational performance. This indicates, it is worth studying the Competency of organization to build and manage its knowledge assets. The question to study this quality of an organization can be, “Does your organization have knowledge management forum/methods for employees to refer?”

19) This study (Shi-ming Huang et al, 2006)²¹² uses balanced scorecard framework to set up performance index for information security management in organizations. This study combines the information security researches and organizational performance studies. The result helps organizations to assess values of information infrastructure management and link performance to business strategies. This study obviously indicates that it will be worthwhile if someone studies the competency of organization to ensure the knowledge and information infrastructure secured, stable and user friendly to the users. The question representing this motive is designed to be “How will you rank your

²¹⁰ Anuradha et al, (2009), “Design and Development of Information Architecture for Digital Library ” Journal of Cooperation among University, Research and Industrial Enterprises, BITS Pilani Pb. (Accepted)

²¹¹ Jackson, Patrice, (2007), “Knowledge Asset Management: A Systems Approach for Human Capital Management”, VINE: The Journal of Information & Knowledge Management Systems, Vol.37(4), p399-403

²¹² Shi-ming Huang et al, (2006), “Balancing Performance Measures for Information Security Management”, Industrial Management & Data Systems, Vol.106(2), p242-255

organizations IT and knowledge network infrastructure for security and stability between 1 to 7? (Best -1 worst -7)”

20) Good and Great companies align their business around customers value because it' is a good indicator of profitable market share. They collect customer information regularly and change organizations based on the information obtained. These organizations integrate information from cross-functional and cross-organizational level to act on customer's perceptions of products and services. The resultant closed-loop model enables organizations deliver superior customer, shareholder, and employee loyalty (Goodwin et al, 1999)²¹³. This indicates the interest of organizations to collect analyze and use the information for well-defined business results. The question designed to investigate this quality is, “Does your organization understand customer relationships and buying decisions through any systematic study?”

21) Over a decade, empirical studies on the organizational performance of IT investment are not conclusive and not completely competent in measuring values of investments in Information Technology. Traditional measures have primarily been financial: return on investment and return on sales. This study shows that time tag has positive impact on the performance measures of corporate strategies, which are significantly correlated with operational activities (Wu et al, 2006)²¹⁴. This indicates it is important to look at *Financial Returns* while studying organizational Performance. Capacity of organization to identify specific indicators of trends of its financial performance, financial return and economic value can indicate its intelligence in market place. Thus, the question is designed this way to explore the same aspect in this research study too. It is, “How will you rate your organization between 1 and 7 for its capacity to identify the financial growth trends? 1 - Excellent ability; 7 - totally ignorant of sensing financial growth” It is proposed to collect data on financial returns which will be *one of the dependent variables* for the experiment.

²¹³ Goodwin et al, (1999), “Closing the Loop on Loyalty”, Marketing Management, Vol.8(1), p24-34

²¹⁴ Wu et al, (2006), “A Hybrid Performance Measure System for e-Business Investments in High-Tech Manufacturing: An Empirical Study”, Information & Management, Vol.43(3), p364-377

22) The objective of this study (Carlos et al, 2006)²¹⁵ is to investigate the differences between high and low-performing manufacturing organizations in relation to critical organizational performance dimensions. This study reveals that high-performing manufacturing organizations, relative to their low-performing counterparts, tend to emphasize more the performance aspects related to employees, customers and *market share*. As such, these organizations appear to consider employees and costumers related performance aspects as critical elements of the overall organizational performance. This study indicates performance of organizations impact market share. It will be worth studying market share portfolio along with other aspects for analysis. The direct open-end question that captures this crucial variable is, "Growth of Market share prices in the last 2 years -----" Market share is another *dependent variable* of the experiment designed.

23) Economic Value Added - has immense potential for capturing social and economic contributions of performing organizations, instead of merely going by financial returns. EVA is applied in private enterprises to correct accounting distortions; in public enterprises it can be applied to correct earnings distortions. This study (Ramesh et al, 2007)²¹⁶ captures the opportunity cost of key factors, which make significant difference to their performance. EVA variable gives a valuable framework for inter and intra-organizational performance evaluation across the chosen organization for study. This indicates it is worth studying EVA of the samples as EVA reveals more clarity on organizations. EVA calculates the *business value*. EVA can also be considered as a *dependent variable* for the experiment designed. The question that is designed to capture this data is direct; "Economic Value Analysis indicators show positive signs of growth in the last 2 years -----"

²¹⁵ Carlos et al, (2006), "Key Performance Factors of Manufacturing Effective Performance: The Impact of Customers and Employees", TQM Magazine, Vol.18(4), p323-340

²¹⁶ Ramesh et al, (2007), "Economic Contribution of Public passenger Transport Organizations – An application of EVA Methodology", Vision (09722629), Vol.11(3), p25-34

24) This study (De Smet et al, 2007)²¹⁷ finds out a relationship identified between organizational performance and profitability. Strong organizational performance reaps financial dividends weaker performance leads to dip in financial dividends. It is worth studying the bottom line for this research undertaken through a direct question, “*Profit growth* in the last 2 years ----”. Profit Growth again can be considered as a *dependent variable* in the experimental design.

25) The article (Rakshit, Arup, 2008)²¹⁸ discusses the initiatives of the Indian government to boost the competitiveness of its textile sector. It put up a scheme for Job Assurances and training of workers; the strategy for market expansion, product diversification, greater value realization for products and better market access is designed in this study. This study indicates Market expansion and business diversification indicates growth and performance. This variable “*Business expansion*” is also considered as a *dependent variable* for the experimental design. This direct question materializes the intention behind the experiment; “How many New Business verticals had been started in the organization in the last 2 years ----- ”

26) This study (Dean Jr et al, 1992)²¹⁹ concludes that managers should use new technologies to empower the workforce, leads to predictions that AMT will be associated with less differentiation, decentralized decision making, and limited formalization. This indicates employee empowerment through decentralized decision-making leads to better performance of organizations. It is worth studying this aspect for the research undertaken. The data for this variable ‘Interest of organization to promote decentralized decision making through cooperation, initiative and empowerment for efficient work systems amongst employees’ can be obtained from the question, “Are employees at a lower level, located at different places empowered to decide apart from corporate offices?”

²¹⁷ De Smet et al, (2007), “The Link Between Profits and Organizational Performance ”, McKinsey Quarterly Issue 3, p6-9,

²¹⁸ Rakshit, Arup, (2008), “Recent Government Initiatives for Textile Industry”, Man-Made Textiles in India, Vol.51(1), p3-3

²¹⁹ Dean Jr et al, (1992), “Advanced Manufacturing Technology and organization structure empowerment or subordination?”, Organization Science, Vol.3(2), p203-229

27) The article (McClernon, Timothy et al, 2006)²²⁰ discusses 3 levels of operations; individual, workflow and organization. System approach to training includes evaluating approaches before, during and after training to ensure employees truly benefited from the training in terms of enhanced result to the organization. In short, it indicates that studying the Capacity of organization to maintain and manage sustainable workflow systems will be worth it. The question designed to capture this variable is, “How often you change the workflow systems that are being followed?”

28) This study (Yuk et al, 2003)²²¹ discusses collective capabilities, such as - gaining the trust of customers - arriving at tailored solutions through cross-functional collaboration - display core competencies on the non-task performance providing sustained competitive advantage. This study says that, to achieve advantage, employee performance management systems should not focus on task performance alone; it should emphasize employee development. This study clearly indicates it would be fruitful to research on the Capacity of organization to maintain and manage an effective workable employee performance management system. The question that captures this aspect is, “How effectively your organization manages employee performance management system? (Rank between 1 and 7)(Very well managed -1 poor management -7)”

29) This study (Hassan et al, 2007)²²² reveals that there is a strong relationship between human resource development (HRD) practices and organizational values. HRD practices like potential appraisal and promotion, learning, training, performance guidance and development were positively related to organizational values of collaboration, creativity, quality, delegation, and humane treatment. However, performance appraisal system, career planning,

²²⁰ McClernon, Timothy et al, (2006), “Rivals to Systematic Training”, *Advances in Developing Human Resources*, Vol.8(4), p442-459

²²¹ Yuk et al, (2003), “Employee Workplace Effectiveness: Implications for Performance Management Practices and Research.”, *Journal of General Management*, Vol.29(2), p53-69

²²² Hassan et al, (2007), “Human Resource Development and Organizational Values”, *Journal of European Industrial Training*, Vol.31(6), p435-448

and contextual analysis variables were negatively associated with values such as trust and creativity. This exploratory study induced the motivation to know the Interest of organization having a career path planning for employees. The question that is designed to capture this variable is, “Do all your employees have a career path in your organization?”

30) This study (Ittner et al, 1999)²²³ constructs a simple conceptual model linking product development cycle time to organizational performance. This indicates the importance of studying the Competency of organization to identify productivity, cycle time, supplier, and partner performance for measuring organizational effectiveness. The question that can study this variable is, “Rate the level of competency (between 1 and 7) of your organization to identify productivity, cycle time, supplier, and partner performance for measuring organizational effectiveness (Highest 1; lowest 7)”

31) The article (Akiyama, M, 2007)²²⁴ discusses on risk management and measuring productivity with Point of Act System (POAS) in hospitals. The POAS targets common issues in hospital management by synchronizing each department and allowing information exchange that enables the management of the business process, medical materials and medicine, expenditure of purchase and receipt, and medical records. This Study reveals the linkage between business process efficiency and productivity with Point Of act Systems. This clearly puts forth the need for exploring the Capability of organization to locate value creating processes and improve business process efficiency that contribute to productivity. This is achieved by asking a question such as, “How many value creating business processes you have in your SBU (Strategic Business Unit) /Department that impact productivity and profitability directly?”

²²³ Ittner et al, (1999), “Product Development Cycle Time and Organizational Performance”, Journal of Marketing Research (JMR), Vol.34(1), p13-23

²²⁴ Akiyama, M, (2007), “Risk Management and Measuring Productivity with POAS — Point of Act System.”, Methods of Information in Medicine, Vol.46(6), p686-683

32) This study (Radha Krishnan et al, 2008)²²⁵ examines the relationship between Information technology and business value from a process-oriented perspective, and also helps to identify the underlying links between Information technology and its differential business value to firms. It develops a process framework to assess the intermediate organizational process capabilities and overall performance of firms that effectively deploy and use Information Technology. This indicates it is interesting to study the Ability of organizations to incorporate new technology and tools with organizational knowledge into the design of these processes. The question that explores it can be, “how many new technologies and tools you had used to design such value creating business processes in your organization?”

33) This study (Drakšaitė et al, 2008)²²⁶ discusses that the prime factor, which drives towards supply costs saved, is the notion and imperative to achieve sustainability into every aspect of defining and modifying certain supply chain of company. Innovative supply chain strategies that couple physical goods movement with financial information sharing and financial underwriting can open the door to greater end-to-end supply chain cost savings, better balance sheet, lower total costs, higher margins, and a more stable supply chain with everyone sharing the savings. This paper triggers the interest to study the Capacity of an organization to minimize overall costs associated with inspections, tests and process performance audits. This can be studied with the question “How many different ways with which you had reduced the costs of audits, inspections and process performance tests in your department?”

34) This paper (Alegre et al, 2008)²²⁷ examines how organizational learning capability affects product innovation performance. This study defines organizational learning capability through five dimensions or mechanisms: experimentation, risk taking, interaction with the external environment, dialogue

²²⁵ Radha Krishnan et al, (2008), “A Process-oriented Perspective on Differential Business Value Creation by Information Technology: An Empirical Investigation”, *Omega*, Vol.36(6), p1105-1125

²²⁶ Drakšaitė et al, (2008), “Advanced Cost Saving Strategies of Supply Chain Management in Global Market”, *Economics & Management*, p113-113

²²⁷ Alegre et al, (2008), “Assessing the Impact of Organizational Learning Capability on Product Innovation Performance: An Empirical Test”, *Technovation*, Vol.28(6), p315-326

and participative decision-making. The impact of these mechanisms on product innovation performance is also analyzed. This indicates the benefits of exploring the Competency of organization to improve value creation processes periodically resulting in better performance, variability reduction, and product & service improvements. This can be studied with the question, “Do you measure product and service improvements that happen through these value-creating processes? “

35) This study (Lee et al, 2008)²²⁸ assesses process improvement from organizational change in the areas of resource utilization and allocation and cycle time and cost reduction. A case study method was followed to indicate that the assessment method was a promising approach for identifying alternative processes that leads to better organizational performance. This study motivates the interest to explore the Capacity of organization to prevent defects and rework process performances. The question design is, “How many procedures and methodologies are used in your organization to prevent defects and rework process performances”

36) This study (Lenka, Usha, et al, 2008)²²⁹ identifies several quality management practices or core concepts of TQM that can help organizations to achieve business excellence. These core concepts are; (a) transformational leadership, (b) customer orientation, (c) human resource management, (d) organizational culture, (e) continuous improvement, and (f) quality measurement. In order to sustain in a competitive environment, companies need to adopt the core concepts of TQM. This triggers the interest to study the Capacity of organization to identify accurate indicators of product and service performance that are important to customer. The question that can capture the suitable data is, “Do you have scales to identify and measure product and service quality in your organization?”

²²⁸ Lee et al, (2008), “Assessment of Process Improvement from Organizational Change”, Information & Management, Vol.45(5), p270-280

²²⁹ Lenka, Usha et al, (2008), “A Holistic Model of Total Quality Management in Services”, ICFAI Journal of Management Research, Vol.7(3), p56-72

37) This research study (Yeung, Andy, 2008)²³⁰ reveals that Strategic Supply Management improves on-time shipments, reduces operational costs, and leads to customer satisfaction and improved business performance. Developed based on contemporary premises in supply chain and Quality Management, this research refines our understanding of the relationships among quality initiatives, Strategic Supply Management and organizational performance. It is worth studying the Capacity of organization effectively managing quality improvement programs in business processes leading to services. The question that can study this aspect can be, "How often do you upgrade procedures for quality business processes in your organization?"

38) This paper (Richard et al, 2006)²³¹ reviews and examines the key concepts of Business Process Management and its effects on organizational performance. Process Alignment and People Involvement are two key concepts for successful implementation of Business Process Management. The findings provide in-depth interpretation of previous studies regarding the relationship between the effects of alignment on organizational effectiveness. The results present evidence that Process Alignment and People Involvement are positively associated with organizational performance. This obviously inspires the study of the Capacity of organization to upgrade the quality improvement processes and implement them in various business processes periodically. This is studied with the query, "How many different procedures are used for quality improvement of the business processes in your organization?"

39) This study (Nadvi, Khalid, 2008)²³² reveals that Developing country firms and farms are confronted by an array of distinct product and process standards that they must meet. This has heightened the competitive challenges they face. Non-compliance can result in exclusion from profitable markets and secondly, considers how global standards affect the governance of value chain ties. There is

²³⁰ Yeung, Andy, (2008), "Strategic Supply Management, Quality Initiatives, and Organizational Performance", *Journal of Operations Management*, Vol.26(4), p490-502

²³¹ Richard et al, (2006), "Business Process Management as Competitive Advantage: A Review and Empirical Study", *Total Quality Management & Business Excellence*, Vol.17(1), p21-40

²³² Nadvi, Khalid, (2008), "Global Standards, Global Governance and the Organization of Global Value Chains", *Journal of Economic Geography*, Vol.8(3), p323-343

an obvious trigger from this article, to study the capacity of an organization to have scales for measuring product/service quality at every stage of the value chain. This is studied with the question, “Do you measure value additions at every stage of the value chain?”

40) In this study (Hong Qin et al, 2008)²³³, the authors develop an instrument to examine the relationships among service quality, food quality, price/value, customer satisfaction, and behavioral intentions. The findings are employee behaviors, reliability, responsiveness, and empathy--positively influence the perception of service quality. The results also support the contention that service quality and customer satisfaction are two important antecedents of customer intention. The indirect effect of service quality on behavioral intentions is not supported by this study because the authors did not find a significant relationship between service quality and customer satisfaction. This interesting study instigate that the Capacity of organizations having procedures to monitor quality continuously will help this research immensely. This variable can be captured with the question “Do you have scales to monitor continuously the quality of processes?”

Out of these 40 variables, 5 variables are chosen as dependent variables. They are; Financial Returns, Market share growth, Business Value, Profit Growth, Rate of Business Expansion. These are the key measures of financial performance of businesses (Jeffrey et al, 1997)²³⁴.

Thus, we decided to explore these 40 variables (Appendix 4) from the data points collected along with two more variables that represent maturity of respondents, as the experience of the respondents affect their perceptions on business realities. These variables are estimated with the technique EFA (Exploratory Factor Analysis). Then it is decided to use multiple regression analysis technique to

²³³ Hong Qin et al, (2008), “Determinants of Customer-Perceived Service Quality in Fast-Food Restaurants and Their Relationship to Customer Satisfaction and Behavioral Intentions.”, *Quality Management Journal*, Vol.15(2), p35-50

²³⁴ Jeffrey et al., (1997), “The Search for the Best Financial Performance Measure”, *Financial Analysts Journal*, p11-20.

study the relationship between these factors from EFA. Appendix-4 lists names of the variables and their meaning perceived from the literature.

3.8 Coding of Questionnaire

The Questionnaire (Appendix 3) has 40 questions fetching data for 40 different variables chosen (Appendix 4). These questions are selected by business leaders and management Academia from the earlier versions having questions four times that of the final version. Organizing, sorting and coding are taken care of by SPSS software used for factoring the data. Except Question Number 11 (Appendix 3) the rest of the questions would be entered with the multiple choice option numbers. For Question 11, if only one of the options is chosen then 1 would be entered in the spreadsheet; if two options are chosen 2 would be entered, and so on.

3.9 Conclusion

In this chapter the entire Research Design and Processes, sampling procedures, data collection methods adopted are described. The Relevance of the questions and the variables are established with literature support. The rationale behind the choice of variables based on business reality is discussed. In the next chapter Conceptual Models from Literature, we will discuss about various conceptual models found in the literature and confirm the chosen variables for further design of the instrument.