Abstract

Services as an industry has seen tremendous growth in last couple of decades and has enormous potential to be tapped further. Chapter 1 of this thesis introduces the services sector, positioning of IT in the services sector, and in turn, the package software services industry. IT services refer to the development, implementation, configuration and support of computerized systems and tools that are used in the development and maintenance of such systems. New technologies like Cloud computing, Big data, Mobility and In memory computing are redefining the way IT industry serves the business. Packaged software is a category of information system for which all implementations are essentially identical and generally termed as ‘template’ or ‘core business model.’ Meaning, the main functionalities are common to all adopters. While the core components of a package are identical across all user organizations, the implementation into an individual organization is usually configured in a manner to fit the requirements of the local organization and is termed as ‘Localization.’ Packaged software services industry has been constantly expanding and forms a major part of the IT services industry. These services are provided by the product vendors themselves as well as by a number of system integrators (SIs) who can also be termed as Package Software Application Services Vendors (PSASVs). Extremely dynamic business environment adds to the complexity in strategy formulation for the PSASVs.

Chapter 2 covers the literature review and the research methodology along with the gaps in the literature, objectives and limitations of the research. The overall objective of the research is to evolve a suitable strategy framework for the PSASVs, inter alia, includes the following specific objectives: 1. To identify the set of variables which are important for the successful performance of PSASVs and to study their inter-relationship in the service creation and delivery. 2. To prepare the generic value chain of such firms and identify the weak areas in the current value chain of such PSASVs. 3. To understand the competitive forces in the industry and the trends in competitive dynamics leading to strategic responses. 4. To study the value chains of select firms to understand the value proposition, value creation and value delivery of services. 5. To develop a conceptual strategy framework for the PSASVs which helps formulate and implement strategies for value enhancement.
Researching strategy formulation and implementation for dynamic environments like packaged software application services require the right balance between quantitative and qualitative methods. A contingent research approach identifies such a balance. This has been achieved in five phases in this research. First, extensive literature review to explore the existing variables in the academics for dynamic industries. Second, Quantitative Analysis to identify the Specific PSASV variables (Primary survey followed by expert interviews). Third, identifying the forces in the PSASV industry. Fourth, Value Chain Analysis to evolve the PSASV value chain model. And Fifth, Qualitative Analysis to validate the PSASV variables and value chain model with cases.

Package Software Industry is slated to register a CAGR of 6.3% for the period of 2010-15 with Revenue of staggering USD 376.5 Billion in 2012. Chapter 3 outlines the competition analysis for the PSASV industry. Software System Integrators (SIs) in the market provide the package application services. Key large and medium players include ACCENTURE, IBM, INFOSYS, TCS, CAPGEMINI, HCL TECHNOLOGIES, HP, ATOS, CSC, WIPRO, SOFTTEK, COGNIZANT, CGI, L&T Infotech, FUJITSU and DELOITTE.

5 Forces model for the Packaged Software Services market has been analyzed taking companies offering activities related to application development, implementation, integration, testing, maintenance and support (functional and / or technical), upgrade and help desk services into account. Buyers in this industry group range from small, individual customers to businesses and government entities. The loss of business from a larger buyer could have a negative effect on players’ revenues, boosting buyer power. Suppliers tend to be large companies, and players’ reliance on supplier inputs means supplier power is strong. At a small body-shopping level entry is easy as long as the product skill is available. But, new entrants may be put off by industry regulations and competition faced from large, multinational incumbents. However, expected growth may mitigate the rivalry level to some extent making the market more appealing to new entrants.

Value Chain concept is covered in Chapter 4. ‘Value chain’ describes the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use. It is called so because value is added to the product or service at each step. Taking a ‘value
chain approach’ helps addressing the major constraints and opportunities faced by businesses at multiple levels of the chain.

The main differentiating characteristic between manufacturing and service chain is that human labour is the primary component of the latter, while a physical product is that of the former. The six major differentiation characteristics useful to define the service industry value chain are intangibility, inseparability of production and consumption, heterogeneity, perishability, relationships and customer contact. Because of these characteristics, the value chain for the service industry is different from that of a typical manufacturing industry value chain.

As per the available literature, the strategy and operations of dynamic industries like package software application services vendors are influenced by two sets of factors - organizational factors and environmental factors. These factors (variables) have been identified for further analysis as part of the research.

Chapter 5 covers the Quantitative research carried out based on primary data to identify influencing factors affecting the performance of PSASVs. In order to pursue the analysis, 200 respondents were selected for the study using a convenient random sampling technique. These respondents represent more than 20 companies from foreign and Indian MNCs, SMEs and small companies. All the respondents were having direct involvement in the strategy formulation related to packaged application business. To collect the data, an extensive questionnaire was prepared containing the questions regarding the strategic decision making factors, organizational and environmental variables. The questionnaire included multiple questions involving open ended questions, closed ended questions, partial opened questions, scaled questions and ranking questions.

The world of PSASV is complex and heterogeneous. The research examined the value chain for the industry as it is different from the other industry segments. It also mapped the identified variables to the chain along with the upstream and downstream activities for each of the chain element. The general concept of the value chain in IT Industry is easily adapted to the packaged software services industries. Product Availability, Customer Requirement, Product Evaluation & Selection, Project Preparation, Implementation, Support and Continuous Improvement constitute the PSASV value chain at the highest level.
Chapter 6 covers the Qualitative analysis. Evolved PSASV value chain model and identified variables are validated iteratively through three cases selected one each from the MNCs, SMEs and small PSASVs. The overall research process comprised of two interlinked cycles.

1. Knowledge generation and Model creation: This was been done using the quantitative approach followed by interviews with industry experts. 2. Generalization cycle: The generalization cycle has been used for verifying the model obtained from the knowledge generation cycle and determining the degree of general applicability of the knowledge generated.

The PSASV value chain model validation as part of the generalization cycle has been done using three organizations: A large Software Services MNC, A SME Software Services Company and A Small Software Services Company. The Large IT software services company indicated a very high degree of alignments to the developed PSASV model with all the independent variables being significant in their environment and have significant impact on the dependent variable. For the SME under consideration, the alignment varied between high to moderate. For the small software services company alignment varied across High, Moderate and Low with an average of moderate.

On one hand, this indicates that the higher degree of alignment to the defined PSASV value chain leads to better performance. On the other hand, it indicates that this industry requires huge investments in infrastructure, people, partnership, skill development, multiple location operation, customer connect, pre sales etc. to encash the true potential of this industry. This also indicates that the survival for the big players is easier in this industry than the medium and smaller players.

Chapter 7 evaluates the research outcome against each of the objectives. It also presents the ‘PSASV Constellation Strategy Model’ as the conceptual strategy model for the PSASVs. Because of the Technological advancements and continuously increasing customer expectation levels, future might see the consolidation or the segmentation of the PSASV industry. This research may be extended to further evolve models for such changes. The model can also be further tested with cost, cycle time etc. for value chain efficiency.