Chapter 7 – Strategies for PSASVs, Conclusion and Scope for Future Research
7.1 Recap

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.’ 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). These PSASVs operate in a very complex stakeholder environment. On one hand, they have to depend on the product vendors for the product related developments and issues resolution. And, on the other hand, they have to assist the customer in selecting a product and then helping the customer to implement and manage the application. Extremely dynamic business environment adds to the complexity in strategy formulation for the PSASVs. Most of the large Software System Integrators (SIs) in the market provide the package application services. Gartner magic quadrant, though applies to SAP, but, is a good representative of the key players in the PSASV market as most of the players operate in multiple packaged products. 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 industry helped identify the forces in the industry and carry out the industry analysis. The key buyers are taken as businesses – large and small, individual consumers and governmental entities. Primary suppliers are the package product development companies. Providers of hardware devices and secondary software tools, software application services as well as skilled employees are the Secondary suppliers. PSASVs fall in the category of Secondary Suppliers. Though dominated by large players, the PSASV industry group is fragmented, with large incumbents operating alongside smaller companies, although diverse product portfolios and strong growth help to alleviate rivalry.
slightly. 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 PSASV revenues, boosting buyer power. Secondary Suppliers or PSASVs tend to be large companies, and PSASV reliance on primary supplier inputs means supplier power is strong. New entrants may be put off by industry regulations and competition faced by large, multinational incumbents. However expected growth may mitigate the rivalry level to some extent making the market more appealing to new entrants.

**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 being 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.

At a Conceptual level, Smiley Face Service Value Chain has been developed as part of this research. The model is an extension of the conceptual goods value chain (Source: World Economic forum, 2012) available in the literature. The key difference between the goods and the service smiley face service model are the replacement of ‘Manufacture’, ‘Assembly’ and ‘Logistics’ in the goods value chain by ‘Development and Testing’, ‘Packaging’ and ‘Deployment’ respectively in the service value chain.

Based on the secondary literature reviews and interviews with the industry experts and subsequent quantitative analysis, the twelve variables identified to be affecting the strategy and performance of the PSASVs are Technology and Data Protection, Product Process and Innovations, Country / Region specific Local Issues, Financial consideration, Organization Structure, Skill Development, Quality of Customers, Structure and Governance, Social and Demographic Factors, Global Economic Conditions and Business Environment and Pre-Sales Approach.

‘PSASV Value chain’ has evolved as part of the research. Product Availability, Customer Requirement, Product Evaluation & Selection, Project Preparation, Implementation, Support and Continuous Improvement constitute the PSASV value chain at the highest level. The
model identifies the upstream and downstream activities and items for each of the chain elements of the PSASV value chain and also examines which are the identified variables that affect the given chain element e.g., Product Availability has upstream activities / items of Industry experience, Business requirement, Technical advancements, Customer and PSASV participation in development and testing, Partners in development, Customer / PSASV loopback, Stakeholders Management. Downstream activities / items include Enhancements in the product, Marketing – Offerings, Sales, Licensing, and Stakeholders Management. Identified PSASV variables that impact the Product Availability are Innovation, Customization and Development Process, Skill development, Presales, Technology, Structure and Governance and Quality of Consumer.

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 having significant impact on the dependent variable. For the SME under consideration, the alignment varied between high to moderate with Organization Structure, Financial Consideration, Customization and Development Process, Product Process and Innovation, Technology and Data Protection and Quality of Consumer showing high alignment, whereas, Skill Development, Pre Sales Approach, Country / region Specific Local Issues, Structure and Governance, Social and Demographic factors, Global Economic conditions and Business Environment showed moderate alignment to the developed PSASV value chain model. For the small software services company alignment varied across High, Moderate and low with Customization and Development Process, Product Process and Innovation, Skill Development and Pre Sales Approach showing high alignment, whereas, Country / region Specific Local Issues, Structure and Governance, Social and Demographic factors showed moderate alignment, and Organization Structure, Financial Consideration, Technology and Data Protection, Global Economic conditions and Business Environment and Quality of Consumer showed low alignment to the developed PSASV value chain model.

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 leverage 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.

A value enhancement model for PSASVs named ‘PSASV Constellation Strategy Model’ has evolved as part of this research and has been detailed in the 7.6 section later.

7.2 Concluding Results:

7.2.1 Information Technology and PSASVs
There are several differences between the custom developed software services and the package software services. At the top itself, the project life cycles are different. While the various phases of the custom development are requirement gathering, design, development, testing and maintenance, the package software services deployment has phases of product availability, customer requirement gathering, product evaluation, project preparation, implementation, support and continuous improvement. In reality, the customization done as part of the implementation phase of any package application services deployment is analogous to the custom development process. Hence, the scale and degree of complexity in case of a package application services deployment is much bigger in comparison to the custom developed services deployment. This complexity has prompted the research for PSASVs performance and strategy, and the outcome of the research has vindicated the motivation.

7.2.1.1 Difference in Value Chain and Value Delivery

Value Chain:
The key difference between a typical IT services value chain and a PSASV value chain is that, in case of a normal IT value chain the starting point of the requirement chain is the customer, whereas, in case of a PSASV value chain the starting point can be the customer as well as the product vendor as mentioned in Chapter 1. In both scenarios, the product vendor has to play the role of a bridge between the customer and the product vendor as indicated below.

Scenario one: Product vendor releasing additional features in the existing product or releasing a new product – in this case the PSASV has to first gather the knowledge of the
product and then help the customer in implementing that product. This is different from a typical software implementation where the software vendor itself is the owner of the software and has the in-house knowledge of its working.

**Scenario two:** Customers looking for additional functionalities in the product that do not exist in the product – in this case, the PSASV coordinates with the product vendor to explore if the requirement can be added in the future releases of the product as a standard functionality. In this way the PSASV influences as well as (at times) jointly participates in product development with the product vendor.

The key challenge that the PSASV faces in this case is to have updated knowledge of product related developments and stay ahead of the competition in delivering value to the customer.

**Value Delivery:**

Packaged solutions consist of fixed price bundles, each of which includes some combination of packaged software and related, pre-defined professional services. In addition, bundles contain pre-built content to help with training, integration, rapid configuration, and so on. Each bundle covers implementation of a specific software product or business process. By focusing on specific business issues, rather than attempting to cover all possible variations and scenarios, packaged solutions create a standardized response to the most common implementation tasks.

Packaged solutions simplify the entire technology lifecycle, from initial software evaluation to go-live. They help buyers avoid open-ended projects, substantially improving predictability and success.

Packaged solutions offer a predictable and consistent implementation experience, based on the vendor’s consolidated knowledge and experience. This predictability allows customers to calculate a more refined TCO (total cost of ownership), create a higher quality cost-benefit analysis and business case, and perform more accurate budget allocations.

The PSASV Value Chain delivers several benefits to the customer as outlined below.

a) **Easier buying process:** Pre-defined packages are simpler to understand and faster to purchase than custom-designed, bespoke implementations. Traditional implementation solutions involve an array of choices and decisions, many of which have unclear downstream implications, creating substantial risk that forces the buying process to proceed slowly. In contrast, packaged solutions offer a complete and pre-defined
approach to implementation that simplifies the customer’s buying process. Purchasing off-the-shelf products is always easier than buying bespoke, custom-built solutions.

b) **Lower cost and faster time to value:** By purchasing only the specific packages they need, customers can reduce cost on both software licenses and implementation services. By standardizing and defining the components needed to implement software for a particular business process, packaged solution vendors can offer customers a fixed fee and efficient process. Without sufficient planning rigor and execution discipline, the open ended flexibility associated with hourly billing creates an environment for implementations to suffer scope creep. In contrast, packaged solutions drive lower cost and faster time to value by creating bounded projects based on the most common buyer requirements.

c) **Reduced uncertainty and risk:** Before buying or implementing packaged solutions, customers are clear on costs, schedules, deliverables, which reduces uncertainty. Every business initiative, especially those involving significant investment and coordination among multiple stakeholder groups, creates some degree of risk and uncertainty. For enterprise implementations, much of that risk arises when designing the solution itself. With bespoke implementations, the enterprise buyer creates custom software configurations, training materials, and other project components from scratch; this development increases uncertainty and risk. In addition, development quality depends on the skill and experience of the particular individuals involved, which further lowers consistency and repeatability. By standardizing core components, packaged solutions reduce risk and improve consistency from one project to another.

d) **Modularity and flexibility:** Packaged solutions can provide a modular approach to buying and consuming enterprise software, by allowing the customer to buy smaller units on a pay-as-you-go basis. Every packaged solution solves a specific business problem, improves particular process, or addresses another business challenge. For example, packaged solutions may cover implementation of CRM sales, program and project management and so on. Each of these packaged solutions is a standalone product that includes schedule, business process content, concrete deliverables, fixed price, and so on. Because each package is self-contained, customers may choose only those specific packaged solutions appropriate to their particular business situation. This approach gives customers the flexibility to start their implementation quickly and then grow based on evolving business needs. Customers can combine individual packaged solutions together
to create a broader solution. In this way, packaged solutions are standalone modules that can also serve as modular building blocks, thus offering the customer cost and time efficiencies along with downstream expansion opportunities.

e) **Increased governance, transparency, and predictability:** By making processes and deliverables more explicit, packaged solutions simplify IT governance and improve predictability around results. Packaged implementation solutions include a standard process used for all customers of a given type. Stakeholders gain visibility into the steps, tasks, and resources required to complete the project, which allows all parties to plan more thoroughly than would otherwise be possible. To the extent that packaged solutions increase transparency and align expectations, project governance becomes more effective at controlling scope creep, cost overruns, and schedule delays. A transparent implementation process helps make clear the expectations of enterprise stakeholders (including IT and lines of business), software vendor, and external professional services providers. Packaged solutions also add below benefits, which support increased governance and project control:

- Splitting large, and often ambiguously defined, projects into smaller pieces, each with explicit scope, process, and deliverables
- Increasing the number of touch points for PSASVs to receive customer feedback and sign-offs
- Giving all stakeholders early visibility into potential warning signs, or deviations from expected progress
- Creating a single point of accountability

### 7.2.2 Performance Variables

There are two strategic management streams regarding the treatment of factors affecting the performance of the firms. One stream of literature, sometimes referred to as the market structure view (MSV), focuses on external advantages primarily attained via favourable market positioning that increases the market power of an organization relative to its competitors. The second strategic management stream, sometimes referred to as the resource based view (RBV), focuses internally on all of the assets, capabilities, organizational processes, information, knowledge, and other capacities controlled by a firm that enables it in developing and implementing effective strategies. MSV and RBV approaches to strategy suggest that environmental and organizational factors are salient in making strategic choices.
The study identified twelve factors affecting the performance of the PSASVs. All the variables and their attributes as well as reference of significance for the PSASVs are detailed in the sections as mentioned below:

- Organization Structure (ref section 5.4.1)
- Financial consideration (Cost, Profitability etc.) (ref section 5.4.2)
- Skill Development (ref section 5.4.4)
- Customization and Development process (ref section 5.4.5)
- Product process and innovations (ref section 5.4.3), and
- Pre-Sales Approach (ref section 5.4.6)
- Technology and Data Protection (ref section 5.4.7)
- Country / Region specific Local Issues (ref section 5.4.12)
- Structure and Governance (Alliances, Partnership, Vendors etc.) (ref section 5.4.10)
- Social and Demographic Factors (ref section 5.4.9)
- Global Economic Conditions and Business Environment (ref section 5.4.8), and
- Quality of Customers (ref section 5.4.11)

7.3 Generic Value Chain of PSASVs and Weaknesses

Attractiveness of the PSASV industry and the competitive forces operating in the industry suggest further directions for analyzing the way in which the firms operate and position themselves. The value chain approach is useful in this context to associate the way activities are performed in the industry / firm for delivering value.

The value chain approach looks at the activities of an organization, and relates them to the competitive strengths of the organization. Value chains are built on the idea that an organization is more than a random compilation of machinery, equipment, people, and money. Only if these inputs are arranged into systems is it possible to produce something of value for which customers will pay. This ability to perform particular activities and manage the linkages between activities is the basis of business competitive advantage. The provision of primary activities in the value chain is concerned with the creation or delivery of a product or service. Each of these in turn is linked to support activities that help to improve effectiveness or efficiency. There are four main areas of support activities: procurement, technology development, human resource management, and infrastructure (systems for planning, finance, quality, information management, etc.). Thus, a firm’s line functions would likely to have primary activities and streams (sales, marketing, manufacturing,
operations, and IT) and staff functions would have supporting activities and streams. There would be intersections of streams as well such as IT fulfilment.

The general concept of the value chain is easily adapted to the packaged software services industries. At a simplistic level, the value chain for package Software Applications Services industry look like as in figure 5.6.

A product is developed and made available by the product vendor. These products have pre-configured processes that can be readily used and also provide facilities to enhance existing features or add on new features based on customer requirements. The customer assesses its requirements as put forth by the IT department in consultation with the user community. The customer is either approached by the product sales team explaining the features of the product and how it can help the customer, or the customer hires a PSASV to do a thorough product evaluation and suggest the preferred product to the customer. Once the product is selected by the customer, it has to procure the licenses to use the product and set up infrastructure to start the project. This follows the implementation of the Project for the identified scope. Once implemented, the application is ready for use. For day-to-day issues in the implemented and running system, the customer hires PSASV resources to resolve them. The product vendor continuously works on enhancing the features of the product and coming up with newer enhanced versions. The customer has to upgrade its systems from time to time to reap the optimal benefits of the implementation. This also requires PSASV support on the customer side.

However reality is not as simple as depicted in Figure 5.6. Every node in the value chain has its own sub-value chain with upstream and downstream activities that make the overall package software services value chain very complex. Figure 5.7 explains the complexity at a very high level wherein there are a number of activities associated with all the six nodes in the simple value chain for PSASVs.

**Weaknesses:** The value chain for PSASVs has some weaknesses or disadvantages as listed below.

- The value chain for PSASV is very complex with multiple stakeholders and sub value chains for every element in the chain.
- The strength of the PSASV value chain lies in its flexibility meaning it can be adapted to any particular business situation. And, that can also be a disadvantage that it may not be ‘plug and play’ compliant.
The value chain concept is heavily oriented towards manufacturing businesses and the terminology used may not be suitable for the PSASV business.

The scale and scope of a PSASV value chain can be intimidating. It can take a lot of effort to finish a full value chain analysis for a PSASV to identify and understand the key differences and strategy drivers.

There is a lot of similarity with the manufacturing value chain but the value chain for the PSASV is a new concept and would need further validations and testing to identify the degree of coverage.

The generic value chain idea has been adopted by supply chain operations experts and therefore its strategic impact for understanding, analysing and creating competitive advantage has been reduced.

Business information systems are often not structured in a way to make it easy to get information for the PSASV value chain.

It only takes one part of the PSASV value chain to break down to stall the ability of the value chain to deliver the required services.

7.4 Competition in PSASV industry

7.4.1 Background
The global software and services industry group is composed of the Information Technology and Communication markets. Information Technology consists of Services, Software, Digital Media and Hardware. Software consists of Software Development. And, in turn the Package Applications Industry falls under Software Development area.

Package Development is divided into three primary market areas – Application Development and Deployment, Applications, and System Infrastructure Software. This research focuses on the market segment dealing in the customization and maintenance of the customized software products.

The global package software industry has experienced consistent levels of growth for the period 2008-2012 and is expected to continue with a similar or marginally better trend for the period 2013-2015. It is expected to grow from 310 billion USD in 2010 to 430.9 Billion USD in 2015. Year-on-year growth in the period 2011 to 2015 is expected to be around 6-7 per cent (Statist and IDC report 2012). The worldwide packaged software market is expected to have a CAGR of 6.8 per cent during 2011-16. Application Development and Deployment is
expected to rise more significantly at a CAGR of 8.4 per cent during the same period than the overall industry. Table 3.2 explains the region-wise breakup of the revenue for the market.

### 7.4.2 Segmentation

The PSASV market can be segmented Category-wise, Geography / Region-wise, Market-share wise and Functional Segmentation. Category wise PSASV market is divided into three categories. Application Development and deployment (ADD) is associated with creating a new product or enhancing an existing product in the market. Applications (APP) are associated with the operations support that is provided once the deployment has been done. System Infrastructure Software (SIS) involves the support below the application layer at the database and the operating system level. Applications have almost half of the market share (48 per cent) and the other half of the pie is divided between ADD (24 per cent) and SIS (28 per cent).

Geography-wise the worldwide packaged software market can be divided into three major parts. North America, Europe, the Middle East and Africa (EMEA), and Asia Pacific and Japan (APJ). North America continues to be the biggest source of revenue for the packaged software application services market irrespective of the economy not doing so well for the last decade or so. It accounts for about 52 per cent of the revenue of the industry whereas EMEA and APJ account for 31 per cent and 17 per cent respectively. Revenue contribution of America has grown from USD 165 billion in 2011 to USD 238 billion in 2016 registering around 44 per cent growth. Europe along with Middle East and Africa continues to be the second largest revenue contributor in the packaged software application area with the numbers growing from USD 106 billion in 2011 to USD 137 billion in 2016, registering around 29 per cent growth. Asia pacific and Japan take the third spot as far as revenue is concerned with the revenue growing from USD 53 billion in 2011 to USD 74 billion in 2016 registering around 40 per cent growth. Figure 3.5 and Figure 3.6 indicate the revenue contribution and growth region wise for the packaged software industry.

Microsoft has been the biggest player in the market with roughly 17.76 per cent market share of the overall packaged software market of roughly USD 325 billion. IBM, Oracle and SAP follow with 8.73 per cent, 8.10 per cent and 4.78 per cent respectively. The most interesting aspect of this industry is that it is dominated by small players with more than 60 per cent of market share. This makes the packaged software space a prime candidate for acquisitions and consolidation in the future.
From the functional usage perspective of packaged software, ERP covered more than 23 per cent of market in 2011 which is further predicted to grow up to 32 per cent by 2016. Detailed breakups for the key functional segment are provided in Figure 3.8.

7.4.3 Key Players in the Package Software Application Services:
Most of the large software System Integrators (SIs) in the market provides package application services. Although the Gartner magic quadrant applies to SAP, it is a good representative of the key players in the market as most of the players operate in multiple packaged product areas.
The Gartner magic quadrant maps the service providers on two aspects - one, their completeness of vision, and, two, their ability to execute. Service providers falling in the Leaders quadrant are found to have completeness of vision as well as ability to execute. Accenture and IBM figure here followed by large Indian players such as Infosys and TCS. Although Deloitte possesses completeness of vision to a great extent but has limited ability to execute and hence finds itself in the Visionaries quadrant. Challengers have the ability to execute but can do better on the vision side of the quadrant. HCL and Wipro find a place here amongst other Indian players. Niche players are service providers that are either operating at smaller levels by choice or have started building their package application practice later than their peers.
The key big players in the PSASV industry are Accenture, Capgemini, IBM, Infosys, TCS, Wipro, L&T Infotech, HCL Technologies, HP, Atos, CSC and Deloitte.

7.4.4 Five Forces analysis of the industry
Overall, the PSASV industry group is fragmented, with large incumbents operating alongside smaller companies, although diverse product portfolios and strong growth help to alleviate rivalry slightly.
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.
Hence, there is a moderate to strong degree of buyer power in this industry group depending on the situation. Supplier power is strong. The likelihood of new entrants to this industry is assessed as moderate. There is a moderate threat from substitutes in this industry group. Rivalry is assessed as moderate.

7.5 Value Proposition, Value Creation and Value delivery in PSASVs

Based on the case study research, the Large IT software services company indicated a very high degree of alignment to the developed PSASV model with all the independent variables being significant in their environment and having significant impact on the dependent variables.

For the SME under consideration, the alignment varied between high to moderate with Organization Structure, Financial Consideration, Customization and Development Process, Product Process and Innovation, Technology and Data Protection and Quality of Consumer showing high alignment, whereas, Skill Development, Pre Sales Approach, Country / region Specific Local Issues, Structure and Governance, Social and Demographic factors, Global Economic conditions and Business Environment showed moderate alignment to the developed PSASV value chain model.

For the small software services company alignment varied across High, Moderate and low with Customization and Development Process, Product Process and Innovation, Skill Development and Pre Sales Approach showing high alignment, whereas, Country / region Specific Local Issues, Structure and Governance, Social and Demographic factors showed moderate alignment, and Organization Structure, Financial Consideration, Technology and Data Protection, Global Economic conditions and Business Environment and Quality of Consumer showed low alignment to the developed PSASV value chain model.

Value Proposition:

Broadly, the PSASVs indicated their value propositions for customers as below.

- Differentiation through customization at lower cost and of better quality
- Provide applications to the customers customized to their business needs
- Enable customers globalize and transform their business processes.
- Enable customers globalize and make a seamless entry into new markets
- Ensure localization of operations ensuring business continuity.
- Collaborate with their customers to ‘Do Business Better’
• Provide differentiated client engagement and deep industry insights.
• Maintain standardization of delivery
• Make repository of process assets available to the customer
• Leverage a network of innovation for continuous improvement
• Work culture and values of intensity, sensitivity and integrity
• Secure various strategic partnerships to accelerate innovation and increase ROI (return on investment).
• Customer Value Maximization
• Deliver differentiation upfront for their customers
• Run an efficient standardized core well supported by transformation themes and initiatives.
• Collaborate with clients in various industry sectors to solve their most pressing challenges from strategy through execution.
• Provide strategic consulting, applications services, technology solutions and managed services to top companies and medium-sized businesses around the world.
• Work with clients to innovative that help their clients get sustainable results.
• Continued focus on diverse industries ranging from pharmaceutical and healthcare to engineering and construction, value added services and business process re-engineering
• Better RoI
• Deliver practical, measurable and sustainable results
• Collaborative and responsive approach to problem-solving inspiring innovative and effective solutions
• Various specialized service areas such as technology streams, service delivery, solution expertise in several domains.

Value Creation:
Value creation from the LSSC was inclined to a partnership mode of working with the customer on one hand to identify business problems and help them with the right solutions with better ROI. On the other hand, LSSC also tend to collaborate with the product vendors in proactively defining the features required by the product users. LSSC also innovate on their own with proof of concepts developed to convince prospects on the benefits of the various software packages on offer. LSSC are prepared to make investments also to this
effect. LSSC prefer to operate in joint responsibility mode with the customer rather than providing warm bodies to deliver work packets.

Value creation from the SMSSC was inclined towards a mixed partnership mode, sometimes working with the customer to identify the business problems and helping them with the right solutions with better ROI, and at times banking on the customers to define the problems for them. Same approach was visible on collaboration aspects with the product vendors in proactively defining the features required by the product end users. The partnership has been selective on a topic by topic basis. SMSSC also innovate on their own with proof of concepts developed to convince the customers on the benefits of the development. SMSSC are prepared to make investments in a limited way on a case to case basis to this effect. SMSSC tend to be inclined to operate in joint responsibility mode with the customer but lacked the scale.

Value creation from the SSSC was inclined to a customer driven partnership mode. They mostly depend on customers to identify business problems and request SSSC’s help as required. Partnership with product vendors is seen as an investment by the SSSC and looked like a concern owing to the uncertainties of the return on offer. SMSSC expect upfront commitment from the customer to spend effort on innovation. SSSC looked resistant to make investments in a limited way on a case to case basis to this effect. They generally operate in a body shopping mode.

**Value Delivery:**

Value delivery model for PSASVs is dependent on the three pillars of People, Process and Technology.

- **People:** Key to delivering value to the customer for PSASVs is to have the right skilled manpower with relevant experience. As knowledge plays a big role here, PSASVs need to continuously up-skill their people resources to keep them updated on latest happenings in technology and product-side changes. Understanding the local cultural issues and adapting to them by the PSASV resources during onsite engagements is an important aspect for their success. On the organization side, the commitment to deliver value to the customer is important.

- **Process:** As product vendors continuously work towards improving the product suiting customer requirements, it is important for the PSASVs to keep pace with these changes. Be it changes in product functionalities or navigational changes, the PSASV
resources need to learn them quickly and apply them to deliver the right value to the
customer. PSASVs also need to continuously enhance their delivery processes. This is
achieved through continuous optimization of their processes by removing flab,
automation of manual processes and striving to perform faster and better all the time.

- **Technology**: It is very important for the product vendors to leverage advancements in
technology areas such as mobility, cloud and in-memory computing to deliver
enhanced value to their customers. The same applies to PSASVs as they need to pick
up the knowledge of these technologies to help the customers draw value out of the
products on offer. PSASVs also put a lot of effort in innovation that can add value for
their customers.

### 7.6 Value Enhancement Model for PSASVs

PSASVs operate in an extremely integrated environment. On one hand, they have to rely on
product vendors for new product features and developments and the associated training. On
the other hand, they have to depend on the customer and convince them to purchase the
product and go in for implementations and so on. PSASVs also depend on support partners
for augmenting resourcing or any other support that they may need in some niche areas. If
that is not enough, both internal as well as external environmental factors also impact
PSASVs. Owing to these factors the strategizing for PSASVs cannot be done in isolation.
The conceptual strategy framework named ‘PSAV Constellation Strategy Model’ has been
developed for PSASVs to help formulate and implement strategies for value enhancement.

The industry is first subdivided into services that can be provided across all industries
(horizontal services) and those services which are industry specific (verticals). Departments
operating in the horizontal services tend to be process experts, while those in the vertical
chains must have industry expertise and their services may have limited applicability in other
industries. In horizontal services, all activities are related to supporting generic business
functions, such as network management, application integration, payroll, call centres,
accounting and human resources. In addition, they include higher value services, such as
market intelligence, business analytics and legal services. These higher value horizontal
services are referred to as knowledge process services (KPS).
Within horizontal services, ITS contains a full spectrum of low, mid and high value activities of the PSASV value chain, BPS activities are in the low and middle segments, while KPS activities are in the highest value segment of the chain. The value of each activity is correlated with human capital (education level), that is to say, lower value-added services are performed by people with fewer years of formal education. Call centres or routine BPS activities, for example, can be performed by employees with just a high school diploma. Market research or business intelligence is typically carried out by employees with a minimum of a bachelor’s degree, while the highest-level research and analysis is carried out by employees holding specialized masters degrees or PhDs.

**Illustration of the model with the LSSC case:**

Analogous to the PSASV Constellation model, LSSC Organization is matrix structured with Industry Verticals as verticals and Service Lines as horizontals. The key verticals include Banking, Financial Services & Insurance, Retail, Consumer Packaged Goods, transportation & Government, Manufacturing & Hi-Tech, Healthcare, Life Science & Services, Energy, Natural resources, Utilities, Engineering & Construction, Global Media & Telecom. Service

Information Technology services (ITS), Business process services (BPS) and the Knowledge process services (KPS) as indicated in the PSASV Constellation model are the horizontalas for the LSSC as well. IT consists of software services, infrastructure services, IT consulting and R&D wing for the LSSC. Business consulting and legal services fall under KPS for LSSC. Enterprise Solution components like ERP, CRM, EAI, SCM etc. fall under BPS for LSSC which is again aligned to the PSASV Constellation model.

LSSC has very strong partnership with the product vendors like SAP and Oracle. It facilitates joint development, early information and revenue sharing for LSSC. On the other hand, LSSC has strong connects with the existing customers and the framework for the acquisition of new customers. LSSC also leverages small players in the market for the quick resource mobilization in case of sudden requirements and for training in the niche areas. LSSC, the partner product companies, the customers and the supporting small partners together form a true constellation endorsing the ‘PSASV Constellation model’ name.

7.7 Scope for Future Research

- Because of technological advancements and continuously increasing customer expectation levels, we might observe consolidation or segmentation of the PSASV industry in the future. 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.
- As a case study methodology has been leveraged to evolve the conceptual model various hypotheses can be validated using the quantitative analysis. This would serve the purpose for further research on this topic.