CHAPTER 5

DISCUSSION

This chapter amalgamates the ideas of the researcher and interprets the major findings with the previous research and the interviews with industry experts in such a way that the theories and beliefs of other people are better acknowledged. This helps to offer better solutions and ventures to answer the questions raised in the thesis.

5.1 MOTIVATIONAL FACTORS IN ERP ADOPTION

This study was proposed to find out the motivational factors of ERP adoption in the SME cluster of the knitwear garment industry. This study is justified with around 70% of the companies not having adopted ERP. The organisational and functional characteristics of the industry clearly indicate that there is a complexity in the operations because of the unique and lengthy process in the knitwear garment production. Larger disintegration also adds to the lack of coordination and information flow between the firms. Due to lack of communication system in the inter-firm and intra-firm level, there is non-availability of information for the exporters to take timely decision and follow up action.

The diagnostic study on the Tirupur knitwear and apparel cluster by Clusterkraft (2009) brought into focus various findings on the issues that are affecting the growth of business of the firms. The important problems, which entrepreneurs in the cluster face today are lack of system, market
competition from other countries and the lack of information about source of raw material, accessories and service providers. The study has also found out that there is a lack of customer satisfaction due to the quality of the product, price and delivery. Poor quality is due to inadequacy of labour skill and delayed delivery because of the inability to monitor the production. This emphasises the need to improve productivity, quality, and minimize the waste and make the firms remain competitive. The need for information is felt by the firms, which want to diversify and want to manufacture high value items. The diagnostic study, however suggests that the technological advancement is not at all an impediment, as they are more forward looking and are ready to take risk in investing in new machineries and technologies.

Sharma and Bhagwat (2006), explored the IS related practises in the Indian SMEs. They reveal that the SMEs understand and acknowledge the importance of the IS in day-to-day operations management in the dynamic and heterogeneous business environment. However, they are yet to implement, operate and exploit it fully in a formal and professional manner that will enable them to derive maximum business gains out of it. The study found the priorities of the SME’s, the highest being connectivity, integration, information sharing, real-time data transfer and quick response technology. A major surprise of the findings is that these issues are associated with the innovative technology like ERP. Yet the adoption of IT, EDI, ERP or SCM is not given high priority. This clearly shows that the organisations require a better and integrated information technology such as ERP and they should have enough financial resources in adopting them. However, there is a lack of motivation in adopting this technology.

This research has found out that the ERP adoption rate in the cluster is moderate when compared to the other sectors of the textile
industry in India. A personal interview with the owners and managers in the industry reveals that the type of ERP implemented is largely developed for the garment industry by local players. The product is developed specifically for the industry and has evolved by embedding best practices within the industry. This is best aligned with the unique process of the industry. However, there are also a few companies who implemented global software like SAP, Oracle and Ramco etc. Those companies that have adopted standard packages are perceived better by the customers, suppliers and the competitors. In general, the need for ERP is justified by the precedence of the adoption of ERP system in the cluster. However, a cluster-wide adoption is required for collective competitiveness of the cluster. This led to the research question of this thesis, “What are the driving factors for ERP adoption in the Knitwear Garment industry and how do they respond during the external pressure?”

Motivation theorists identify the driving forces as the motivation factors. Raymond et al. (2005) argued that as determinants of ERP adoption, motivations refer to the initial reasons that lead to the adoption decision. The motivation studies on ERP is focused on different organisational types namely mid sized enterprises (Alizai and Burgess 2011), public sector and e-government (Raymond et al. 2005), SME (Ramdani and Kawalek 2008, Shiau et al. 2009). It is interesting to examine whether knowing the huge benefits, high cost and high risk of facing complex implementation problems can motivate an SME to adopt the ERP system. Rahim et al. (2010) introduce a notion of organisational motivation for IS adoption at the firm level.

According to Oliver and Romm (2000), there are three categories of factors that determine an organisation's initial search for an ERP
solution: 1) the need to improve the performance of current operations, 2) the need to integrate data and systems, and 3) the need to prevent a competitive disadvantage or a business risk from becoming critical.

Ross and Vitale (2000) identified six reasons generally cited by enterprises, classifying them into three categories (infrastructure, capacity, and performance). They also underscore their overlapping character as the new common systems platform (infrastructure) makes it possible to acquire new capabilities (process improvement, data visibility), which, in turn, are supposed to allow improvements in the organisational performances (cost reduction, strategic decision-making, customer responsiveness).

Parr and Shanks (2000) took up the same motives, but gave different names to the categories. For them, motives are of three orders, i.e., technological (common platform, obsolescence of legacy systems), operational (process improvement, data visibility, operating cost reductions), and strategic (Y2K compliance, multi-site standardization, customer responsiveness, decision-making improvement, need for efficiencies and integration, business restructuring). ERP systems replace operational and control systems and are motivated by concerns for efficiency (Chang et al. 2000), increase effectiveness and control costs (Blick et al. 2000), simplify the complex environment through a common system-interface, avoid fragmentation and duplication of resources and services, reduce confusion and waste, adapt more effectively and more quickly to changes (Allen et al. 2002).

Raymond et al. (2005) typified the ERP adoption motivations by combining previously cited categorizations (Parr and Shanks 2000; Ross and Vitale 2000) and produced the following four
categories: 1) technological motivations, 2) operational motivations, 3) performance motivations, and 4) strategic motivations. Technological motivations are concerned with the infrastructure. Operational motivations are concern with the improvement of processes. Performance motivations are contingent on the will to improve results, both quantitative and qualitative. Motivations of a strategic order are linked to a change in orientation in the design and delivery of services. This classification appears to have sufficient discriminating power and completeness for research purposes.

This research incorporates all the above motivational factors discussed by various researchers, into perceived benefits, perceived challenges and perceived organisational complexity based on the Expectancy Theory of Motivation (Porter and Lawler 1968; Vroom 1964). The theory explains why individuals choose one behavioural option over others. The expectancy is the belief that one's effort will result in the attainment of desired performance goals. This belief, or perception, is generally based on an individual's past experience, self-confidence and the perceived difficulty of the performance standard or goal. The motivation to adopt ERP is found internal and external to the organisation. The normative and mimetic pressures act from internal. The attitude of the CEO and the IT head formed from their perceived benefits and challenges are internal. The competitive and regulatory pressures act from external.

The identification of the driving forces and the conceptual model development was justified by various adoption literatures. However, this research focuses particularly on how these motivational factors respond to each other in a particular context.
5.2 INSTITUTIONAL ISOMORPHIC PRESSURES EXPERIENCED BY KNITWEAR GARMENT FIRMS

DiMaggio and Powell (1983) stated that the forces often act in conjunction and therefore the conceptual classification of the force may not be the same in the real. This study has found that the forces rather understood as the mechanisms of the pressure have been perceived as agents of pressure. This shows that the importance of pressure is attached to those who exert the pressure and what are its implications. Institutional isomorphic pressures are translated into a motivation in ERP adoption based on the expectation of the outcome from the source that exerts pressure. The institutional isomorphic pressures in the knitwear garment cluster were explained clearly by the associate pressure, customer pressure, and the competitive pressure. On the contrary, the supplier pressure, though positive, does not have high impact, and government pressure is found to be insignificant.

Among the various forces, ‘follow recent trend’ scores high and this can be attributed to the entrepreneurship and the urge of growth in the spirit of the promoters of the knitwear garment firms. This is consistent with Wang’s (2010) findings, that following fashion can legitimize organisations and their leaders regardless of performance improvement. The study has found that the pressures from the customer is both mimetic and coercive and provide reasons for the firms to adopt ERP. Katharina et al. (2009) compared regulatory pressure to coercive pressure and argued that it affects firms strongly rather than the other institutional pressures. It is evident from the study that pressure from the customers has more meaning and is taken up seriously, but not to an extent of threat to regulate. This is due to that the cluster mainly operates on made-to-order
production system, where the customers are mostly importers from the Europe and the United States. The International buyers (Customers) specify their design requirements for the product and demand legal compliances on various aspects as per the laws of the land. Certain buyers even insist on business process and documentation to make their transaction convenient. The buyers, recommend the firms to install particular software, from small and economic to sophisticated ones as ERP to be connected with their own systems through EDI and track the progress of their orders. The pressure from such buyers is obliged by the firms for a continued business and adopts technologies at any cost.

However, with regard to the suppliers, the firm takes a superior position as a provider of business and does not feel the pressure from them. This coincides with the findings of Kouki et al. (2007), who have studied the institutional isomorphic pressures on ERP assimilation in a food manufacturing company, which had a similar kind of customer and supplier pressure. Premkumar (2003) argued that even small firms might adopt technologies if the suppliers insist on using advanced technologies for doing business with them. However, this study fails to prove this and the supplier pressure is found to be insignificant.

The study also finds that initiatives have been taken by the government to promote adoption of ERP, but it does not make usage mandatory. The initiatives such as TUFS introduced by the Ministry of Textiles, is intended to facilitate induction of state-of-the-art or near state-of-the-art technology. The ‘Project Vikas’ (a joint initiative of NMCC - Government of India and Microsoft), AEPC and Textile committee are also found active in promoting ICT adoption (“Project
Despite their efforts, the pressure is rarely felt by the firms. This study does not find any significant pressure from Government.

The cluster utilises the services of the management consultants in industrial engineering, compliances and audit of quality management systems etc. The consultants along with these roles play a role in recommending the use of information technology. The pressures from these consultants are mildly felt by the firm in a need to improve quality, productivity and compliance.

The exposure of the cluster to the media through commercials and trade fairs has made them aware of the technologies. The cluster hosts a series of events and world-class trade fairs in the knitwear technology and related areas. Vendors exhibit their latest technology and induce the firms to follow the latest trends.

The role of the trade association is prominently felt. The exporters association and various other associations are collectively involved in the promotion of the ERP adoption. The e-readiness centre is one such initiative for ICT and a special purpose vehicle operates especially for the ERP adoption. The pressure for homogeneity that arises out of comparing with similar firms, who have adopted the technology, though not competing, is seen evident in the study. The perception of the customers on the firms, who adopted ERP and how these firms are looked up by others in the same cluster, can be seen as envy and has a substantial influence on the other firms to adopt ERP.

The findings of this study are consistent with Huifen and Chinag (2010), who argued that ERP systems embedded rules and norms from pre-existing institutions that serve to both legitimate and facilitate
inter-organisational isomorphic structure. They support that the role of ERP in legitimating business practice to conform to accepted norms and conventions has been increasingly recognized. ERP plays a significant role in establishing and perpetuating inter-enterprise structure of institutions. However, these pressures are again weighed on the agents of pressure.

Premkumar (2003) also argued that gaining competitive advantage is an important motivation for technology implementation. Though competitor pressure was found to significantly affect the institutional isomorphic pressures, the pressure from the competitor was not felt seriously in this cluster. This is due to the close network of the organisations being developed from the same community and enough scope is left to each business. The interviews with the respondents reveal that the industry does not feel a competition within them. There were instances quoted by the respondents that because of the capacity constraints they serve only a few buyers and sometimes drop a buyer, when there is constant support from another buyer.

5.3 PERCEIVED BENEFITS OF ERP BY THE INDUSTRY

The results of the perceived benefits tested using the framework of Shang and Seddon (2004) showed that the theoretical classifications of the ERP benefits are justified. Wu (2011) argued that set of ERP benefits do not necessarily share the same importance. Although implementations of ERP are complex and costly, firms may actively adopt and engage in such ERP implementations, if perceived benefits exceed perceived risks and costs. Therefore, it is interesting to examine what type of benefits that the SME cluster of knitwear garment industry perceives from the ERP
implementations. This study highlights a perception of various benefits relevant to this industry.

In a knitwear garment industry, the largest perceived benefit envisaged from the ERP is the reduction of wastage of fabrics that occurs due to frequent changes in design and lack of inventory tracking mechanism. Tirupur knitwear garment industry caters to the low run, high cost and fashion garments. For a timely production schedule and contingency, they plan for a huge buffer. Due to lack of proper inventory data, even during repeat order of the same product, the firm is unable to track the inventory. ERP is thought to provide a better solution to this problem.

The accuracy and currency of information is perceived to help in improved customer service. The European market has a fast fashion and the buyers of Tirupur are keen in knowing the production status of their orders. To manage the supply chain on either side, buyers would like to have an EDI. The garment firms look at ERP for providing such information to make their customers happy. This study is consistent with the findings of Keating et al. (2009) who also found that improved information planning, accurate and timely information is a major source for value stemming from the adoption of ERP.

The knitwear garment production has various processes and ERP is perceived to help in integrating them and produce a better control on resources. However, there is a mixed opinion among the respondents on the perception of ERP providing better control of resources.

With high number of production stages and large disintegration of the processes, ERP is also beneficial in reducing the redundant data.
When using legacy systems the database is isolated and particular information exists in various databases at different levels. An ERP, by its centralised database, is felt beneficial in reducing the redundant and outdated information. This industry also looks for information transparency and the data integration that can be arrived by adopting ERP.

Operational benefits such as tracing the rejection help in identifying the critical areas, which need extra care for quality improvement. Due to long chain of activities, if proper information at each stage is not available, it is difficult to identify the problem area. Another operational benefit that this study proposes from the expert viewpoint particular to the industry is that ERP can provide continuously improved plan. Since the feedback on the previous plan and its outcome is readily available in the database, plan can be improved each time.

Strategic benefits such as acquiring best practices and better coordination with partners are moderately high. This means that ERP can provide benefits to some extent. The lack of administrative system is evident from the prior diagnostic study in the cluster. This can be attributed to the entrepreneurial spirit of the promoters who start up business after their experience in a firm learning the technical know-how of the trade. ERP is thought to provide them with the best administrative practices. However, there is always a problem of alignment with the unique practices of the industry.

Some of the organisational benefits such as building common vision, empowerment of process owners and many of the strategic benefits are not perceived by the firms. This shows that they are aware of operational, managerial and infrastructure benefits more than the
organisation or strategic benefits. However, Ugrin and Jia (2006) suggest that this may be due to the difficulty to quantify system benefits in achieving the organisation’s strategic goals.

The overall perceived benefits that are accrued from the individual benefits are analysed. The common benefits such as operational benefits and managerial benefits contribute less to the perceived benefits. The ERP, being considered as a strategic IS makes it evident from the study that the real benefits of adopting ERP lie in the organisational, infrastructure and the strategic benefits.

5.4 PERCEIVED CHALLENGES OF ERP BY THE INDUSTRY

The conceptual categories of the perceived challenges are verified and found to be consistent with the previous studies. This study shows that there is a good awareness of the challenging factors that are relevant to this industry. The respondents agree that the challenges such as budget increases and difficult to complete within planned time is perceived to be present in ERP implementations in the Knitwear garment industry. Panorama Consulting Groups, in their ERP report published in 2010 also confirmed these findings. They have found out that though budget increase in ERP implementations has come down from 59% in 2008 to 54% in 2010, it is still a problem to manage ERP projects. The total cost of ERP is 6.9% of the revenue.

Difficulty in providing training support is another challenge that was perceived by the industry. This is true that the SMEs have an inherent problem in providing training support. Singh et al. (2010) found that the
Indian SMEs face challenges in the use of information technology, training of employees, and research and development, and these factors are related to the performance of the firms.

‘Lack of qualified staff’ and the ‘difficulty in retaining them’, ‘overcoming their resistances’ and their ‘change management’ are the strong challenges felt by the industry. The complexity of the process and the practice of the industry throw a challenge on the customisation of the ERP. The results show that except for the people challenges, the industry is capable of managing the other challenges like finance, technology and organisational. Keating et al. (2009) found that the cost based risks and financial risks were less important than the management commitment. This study found that the challenges in getting financial resources for the project were negligible. This was found even during the interview with the experts and the item evaluation. The item was dropped because it was found not relevant as in the prior studies.

The people challenges are perceived to be major challenges. The different aspects of people involved in ERP project may be listed as ‘skills of the employee’, ‘providing training’, ‘user resistance’, ‘difficult change management’, ‘retaining people’. This coincides with many studies that focus on risks and challenges in ERP projects. Mehrjerdi’s (2010) study on risks and benefits of ERP implementation listed similar challenges. Providing training need has been a critical challenge for the industry. To further examine the validity of the claim for training support, Koh et al. (2009), studied the demand for training and consultancy investment in SME specific ERP system implementation and operation.
‘No business condition’ is one variable that is scored near the mid range. Respondents are neutral in saying that there is no business case. This can be interpreted, as that having a business case is not perceived to be a challenge. However, Nafeeseh and Al-Mudimigh (2011) argued that there should be a compelling justification to increase the success in ERP adoption. Ross and Beath (2002) proposed that justifying the IT investments should be done using multiple approaches and business case as just one of the approaches.

Gable (2003) highlighted the need of the experienced and skilled consultants who can help the ERP implementation. Consultants bring specialised skills, experience and knowhow to the project and transfer the knowledge to the internal employees. This dependence on the consultants often creates a challenge and this is also felt by the knitwear garment industry. They perceive that the support of the vendors, the availability of right implementation partners and the difficulty in managing too many players during the implementation projects pose a challenge.

Law and Ngai (2007) examined the factors in ERP adoption and found that the strategic intent, senior management support and the status of the IT function within a company are important. This study showed that the top management support is not a major challenge. This can be attributed to the size of the firm, where the firm is managed by the owner-manager and the top management is the initiator for any technological adoption. However, poor attitude of the leader and distance between the CEO and IT head are perceived to be a challenge. This brings two issues to light, namely the CEO himself having a negative attitude towards ICT. This may be because of the entrepreneurial transformation from the agrarian society and the awareness of technology as a distant dream for them initially. However,
when the CEO is inclined towards the project, his/her support of the project is complete. Secondly, the challenge is from the IT head. Being small in size the person in-charge of the current IT may feel that a larger project like ERP would pressurise him and put a resistance on the top management’s effort to adopt technology. This is again similar to Chang et al’s (2010) findings that CEO’s attitude towards information technology adoption, the CEO’s IT knowledge, the employees IT skills, business size, competitive pressure, cost, complexity, and compatibility are all important determinants in ERP adoption for SMEs.

Requiring strong vision, managing large project like ERP, requiring good IT infrastructure, complexity in integration, lack of qualified staff are challenges that were found consistent with He (2004), who studied the challenges in ERP and proposed a resource based perspective model to help ERP decisions. His findings are that implementations are challenging because of high cost, technical complexity, lack of information technology infrastructure, lack of well-trained employees, lack of incentives to companies, and the corporate culture.

Among the various categories of challenges, resource challenge has been found to be lower in this industry. Sia (2008) analysed the stages of an ERP life cycle at which the challenges are critical. He found that the resource challenge was critical in the pre implementation stage. This study highlighted that the resource was not a challenge at the initial stages. Sia (2008) found the technical and people challenges to be critical in customisation and installation stage. Though the technological and people challenges are perceived to be high in this industry, this study does not access when these challenges are critical.
He and Wu (2006) who made a study on factors affecting the adoption of ERP in China found major obstacles similar to this study such as expensive, complicated, prerequisite IT infrastructure, and lack of well-trained workers etc. They suggested that the main obstacle is the different business culture. India and China share a similar Asian culture and the similarity in findings is not a surprise.

5.5 ORGANISATIONAL COMPLEXITY

The results show that the size of the units in the Knitwear garment cluster is largely with the employees ranging from 11 to 250. A large number of companies have product line up to only four and supplier / customers up to 20. The companies are predominantly proprietorship and serve the international markets. This characteristic of the knitwear garment cluster are unique and has both advantages and disadvantages. The size, disintegration and nature of the ownership make this sector a supplier of low-run, value added garment, which is different from other competing countries that mostly produce in mass, the low priced products. These unique characteristics of the SME knitwear garment industry is the focus of the study.

The results highlight the fact that the knitwear garment units are small and highly disintegrated. Joshi and Singh (2010) noted that this is due to the reservation of garments exclusive to the small-scale sector. The number of organisations with at least one level of integration is at the maximum of 25%. In addition, the core activities of the business are largely outsourced from the management consultants because of their size. These characteristics of the business pose a major challenge to the ERP adoption.
Based on the studies by Raymond and Uwizeyemungu (2007), and Buonanno et al. (2005), this study proposed that the organisational complexity would have an influence on ERP adoption. Although the earlier studies have found that except for the organisational size, the other factors did not have any significant influence on ERP adoption. The finding of this study also proves this. Yet the context of including the organisational complexity in this study is to investigate the role of organisational complexity when institutional isomorphic pressures act on ERP adoption. This study proposes organisational complexity as one of the mediating variables.

5.6 RESPONSE OF MOTIVATIONAL FACTORS TO THE INSTITUTIONAL ISOMORPHIC PRESSURES

The influence of institutional isomorphic pressures on the perceived benefits, perceived challenges and the organisational complexity are analysed to investigate their direct relationship. The results show that the institutional isomorphic pressures have an influence on the perceived benefits. The relationship is positive indicating that when the pressure is high, the perceived benefits are also high. This may be interpreted that the benefits support the need that arises out of the institutional isomorphic pressures. When the regulatory pressure mandates the compliance or a specific form of report, or information to be streamlined for a faster and transparent data across organisational stakeholders, the characteristics of ERP provide a solution to these requirements. Therefore, it can be understood that more benefits are perceived by the firm during the pressure.

The institutional isomorphic pressures are also found to have an influence on the perceived challenges. When adoption of ERP is mandated
on the organisation by the external and isomorphic forces, the lack of enough infrastructures, suitable skilled employees, difficulty in the business process re-engineering and resistance from the employees aggravate the warmth of the institutional isomorphic pressures. Katharina et al. (2009) found a negative influence of regulatory pressure on the project team competence creating a challenge towards ERP adoption. It can be interpreted that the higher institutional isomorphic pressures will create a higher perceived challenge. The companies may feel an extra burden, when they are forced invariably.

Institutional isomorphic pressures are found to influence the organisational complexity positively. The organisational complexity increases when the business is exposed to external pressure. For a MTO and customer dependent knitwear garment industry, there is a pressure of lead-time. This study took into consideration the number of customers and suppliers as the measure of the organisational complexity. The magnitude of the pressure can be felt when the organisation is dependent on many such customers or other supply chain members, as the dependency on a customer produces institutional isomorphic pressures. In the other words, when an organisation is within a larger institutional network, its interaction increases and adds up to its complexity. The above finding is supported by Aslan et al. (2009), who assessed the applicability of ERP to the MTO sector. Considering the factors such as planning and control in MTO companies, and the typical size and supply chain positioning, they concluded that there is a significant gap between the requirements of MTO companies and the functionality of ERP systems. Overall, the results of this study showed that the mediating factors included for the study are influenced by the independent initial variable (Institutional isomorphic pressures).
5.7 IMPACT OF INSTITUTIONAL ISOMORPHIC PRESSURES AND MOTIVATIONAL FACTORS ON ERP ADOPTION

The findings show that there is a direct influence of institutional isomorphic pressures on ERP adoption. The knitwear garment unit has a well-developed network of institutional members, as discussed in the introduction of the thesis. Adoption of ERP by certain companies and their close relationship with other members produces a pressure of homogeneity. This pressure of homogeneity, otherwise called as isomorphic pressures, force the industry to adopt strategic information systems like ERP. The pressure from the customer/buyer forces the knitwear garment units to comply with because of their dependency. This was evident during the interview with the industry managers. One of the respondents highlighted that they can even adopt individual technology for a particular customer on the requirement of the customer. The relationship between the institutional isomorphic pressures and the ERP adoption, as proved by this study, is supported by Serrano et al. (2010) who suggested that SMEs are under pressure to adopt integration technologies, if their business partners request or recommend doing so. They report that most of the factors that focused on the adoption of integration technologies by SMEs are mostly from external forces, like governmental support, external pressures, pressure from their trading partners etc.

Varukolu and Park-Poaps (2009) who studied the technology adoption by apparel manufacturers in Tirupur, found out that the competitive pressure might force firms to adopt new technologies. Alizai and Burgess (2011) suggested a similar concept that the need for ERP adoption can occur due to an attempt to be more competitive or due to
an external pressure from large business houses to adopt ERP applications. Oliveira and Martins (2010) also suggested that the environment and external pressure is a significant facilitator for e-business adoption. Gaining competitive advantage is still one of the most important drivers in e-business adoption. Katharina et al. (2009) found a positive influence of regulatory pressure towards ERP adoption. The findings of this study are consistent with the prior studies.

The influence of the consultants and the experts on the ERP adoption was significant in this study. They create a kind of mimetic pressure, which this research has termed as Associate Pressure. This confirms to the findings of Westrup and Knight (2000). They identify the management consultants as one of the key players in ERP adoption. They elaborate the pivotal role of consultants and propose that much of ERP adoption is based on the effort of management consultants to create new markets for their expertise. They suggest that the consultants mediate the deployment of ERP systems.

As in the previous studies (Shang and Seddon 2000; Gattiker and Goodhue 2004), this study has also found that the perceived benefits have an influence on ERP adoption. Oliveira and Martins (2010) found a similar impact of perceived benefits on e-business adoption. Leroux et al. (2011) have found that informational, decision-making management benefits, strategic benefits, organisational benefits together facilitate the ERP adoption.

The positive influence of perceived benefit on ERP adoption found by this study is also supported by Staehr (2007) who commented that effects on business benefits from ERP system motivate the firm for ERP
adoption. However, he argued that business benefits vary with the extent of functional area and sites, but this study does not consider testing the relationship.

Jang et al. (2009) quoted internal needs as production and operations improvement, product and service enhancement as significant predictors of adopters. Market expansion was included as an external strategy and these factors affected the decision to adopt ERP. In total the studies confirm that the perceived benefits have an influence on ERP adoption.

He and Wu (2006) in their study of identifying the factors affecting adoption of ERP found the significance of various obstacles. They found that the cost and complexity are two major obstacles. Oliveira and Martins (2010) also suggested that the perceived challenges as the obstacle in e-business adoption. This study has found a significant but negative influence of perceived challenges on ERP adoption. The challenges are obstacles in the positive ERP adoption. The case summary and the measurement model have already indicated people challenge as the major challenge faced by the industry. There is a shortage of skilled employees for both at the operational and the administration level. Especially for IT related jobs the manpower shortage is deeply felt. Next major people challenge is the employee resistance. The firms in the cluster employ mostly contract employees (Fair Wear Foundation 2004) and these employees work on targets and are reluctant to do additional operations of feeding data. Some firms have separate data entry operators at the data generation points. This reduces the empowerment of employees and their decision-making role using the available data.
Another major impediment that is consistent with prior findings is the non-availability of an organisational system and the IT infrastructure. The inherent problem of the SME, due to its size, is the organisational structure. Many of the functions are carried out by the owner-manager or a single person who is responsible for the decision-making. Information is pooled with the individual who operates on spreadsheet or even on a paper-pen model. Many firms lack even the basic ICT and the cluster’s BDS such as e-readiness centre (ERC) which are still engaged in equipping them with the basic ICT.

Koellinger and Schade (2010) found that the probability of implementing new technologies increases with the number of previously adopted e-business technologies. The study also observes that SMEs do not have a prior IT capability and it is perceived as a challenge and hinders the adoption of ERP. Similarly, Gare and Melin (2010) emphasised that the formative IT infrastructure will help SME to have more relevant ERP investments.

Jang et al. (2009) confirmed that the ERP implementation is lengthy and costly processes that require large capital and a great number of personnel. This poses a challenge to ERP adoption. Sumner (2000) listed the risk factors in ERP adoption as alignment with business, senior management support, training, recruitment and retaining qualified employees, integration and management structure problems, lack of internal expertise, lack of business analysts (implementation partners), failure to mix internal and external personnel (dealing with many players), insufficient standardization, communication, and lack of technology. She suggested that it is necessary to tackle these problems for successful ERP implementation and considers it as a challenge towards ERP adoption.
In summary, this study supports the prior studies that perceived challenges would influence the ERP adoption.

Organisational complexity was measured as an index in this study by summing up the various organisational characteristics. Higher the index, the more complex is the organisation. This study finds that the organisational complexity has an influence on the ERP adoption. The relationship is found to be positive and significant, suggesting that higher organisational complexity will lead to ERP adoption. Serrano et al. (2010) suggested that the size of the company is the main business complexity. Companies of different sizes have a different perception in relation to their integration technology adoption. In a recent study, Barbosa and Musetti (2010) found that the size of the companies and the nature of their operations influence the levels of IS adoption. Similarly Jang et al. (2009) found that organisational size is a significant discriminator in ERP adoption. The outcome of this study also indicates a similar influence. However, Oliveira and Martins (2010) argued that in accordance with the literature, the firm size is a controversial predictor for IT adoption. Varukolu and Park-Poaps (2009) believed that the organisational size is a significant predictor of technology adoption in Tirupur Knitwear garment industry. They also found that export orientation influenced the technology adoption.

This study also proposed to analyse the relationship between the organisational complexity, perceived challenges and the perceived benefits as suggested by Esteves (2006). On analyzing the relationship between the organisational complexity and the perceived challenges, the results show that the higher organisational complexity will reduce the perceived challenges. Therefore, it can be inferred that when organisational
complexity is more, the challenges that arise out of ERP adoption and implementation are not felt seriously. In other words, the perceived challenges of ERP adoption are compromised when the organisational complexity is high.

Similarly, the results show that the higher perceived challenges will reduce the perceived benefits. It can be inferred that the value of the benefits derived out of adopting an ERP system is not actualised when there are more challenges in the adoption. Wu (2011) argued that although implementations of ERP are complex and costly, corporations may actively adopt and engage in such ERP implementations, if perceived benefits exceed perceived risks and costs. ERP provides solution to deal with the competitive advantage, improve productivity and operate more efficiently.

This part of the finding in this study can be justified with reference to Seyal and Rehman (2003). They stated that the distinct characteristics embedded in SMEs such as small management teams, strong owner influence, lack of staff specialised in IT, multi-functional management, limited control over their business environment, limited market share, low employee turnover, reluctance to take risks and avoidance of sophisticated software, lead to very slow ERP adoption. Small firms will have difficulties in taking advantage of the benefits from ERP than larger enterprises. This can be interpreted that, when compromise is not made on the challenges, it is difficult to obtain the benefits.
5.8 MEDIATION EFFECT OF MOTIVATIONAL FACTORS (SIMPLE MEDIATION)

The mediation effect of the motivational factors such as perceived benefits, perceived challenges and organisational complexity are analyzed separately. The results clearly show that the mediating effect of perceived benefits in ERP adoption. It can be inferred that the institutional isomorphic pressures directly influences the ERP adoption. In addition, the presence of perceived benefits will increase the ERP adoption. This can be understood from the increase in the coefficient of the total effect, when compared to the coefficient of the zero order direct effect. When the organisation is forced to adopt a technology, if the awareness of the benefits is present, then it is easier for the organisation to decide the adoption. On the other hand, the response of the perceived benefit, when acted by the institutional isomorphic pressures, can also be understood from the same model. It can be said that the institutional isomorphic pressures reduces the influence of perceived benefit on the ERP adoption. Having the intention to adopt ERP at the same level, it can be understood that the perceived benefit is compromised, when there is an external pressure. That is, even if the organisation feels that there is only a little benefit in adopting ERP, when forced by the institutional members, it will go in for adoption.

Lai et al. (2010) argued that the adoption decision is not always logical and sometimes the best alternative is imitation. They studied the influence of the imitation on the beliefs. They indicate that imitative forces along with logical evaluations have a consistent direct effect and significant indirect effect on belief. This study has modelled the imitation as the mimetic forces and beliefs as the perceived benefits. Therefore, it can be understood that the mimetic pressure can influence the perceived benefits
and affect the ERP adoption. Ugrin and Jia (2006) argued that not all systems are alike, and systems with benefits that are more difficult to quantify or contribute to integration between organisations, will lead to stronger institutional isomorphic pressures than those that do not. This explains the fact that when the technology is perceived not to provide enough benefits, the institutional isomorphic pressures is felt hard and forcing. However, the same degree of institutional isomorphic pressures will be less felt when the perceived benefits are high.

The mediation effect of perceived benefits that was found in this study can be compared with the findings of Ugrin (2009). His results suggested that the effects of institutional factors on adoption decision are amplified when firms have not already adopted an ERP system. The benefits of the system are difficult to quantify and the system enhances the organisational interaction throughout the supply chain.

In a mediator model with perceived challenges, the indirect effect of the institutional isomorphic pressures on ERP adoption is positive and significant. This may be because the product of two negative values produces a positive value. Therefore, care has been taken to interpret the effect between the variables. The negative regression weight of institutional isomorphic pressures on the perceived challenges suggests that the higher pressure will reduce the perceived challenges. The perceived challenges are felt to be less, when the institutional isomorphic pressures are forced. Similarly, the negative regression weight of perceived challenges on ERP adoption suggests that the higher perceived challenges will reduce the adoption of ERP. However, interpreting the intervening effect suggests that the higher institutional isomorphic pressures produces a compromise on the challenges and supports the ERP adoption.
Oliveira and Martins (2010) have found that the expected benefits and obstacles are factors that influence the adoption. Similarly, many studies include the perceived benefits and the perceived challenges in the ERP adoption research as a techno-economical framework to justify the adoption. The results of this study show the relationship between these two variables.

The results also show that the organisational complexity mediates the ERP adoption. Institutional isomorphic pressures are already known to influence the ERP adoption. In addition, the organisational complexity is found to support the ERP adoption. Higher institutional isomorphic pressures are found to positively influence the organisational complexity as it increases the organisational complexity. This higher organisational complexity produced by the institutional isomorphic pressures in-turn increases the ERP adoption. In an alternate perspective, the organisation will adopt ERP, when it is forced by the institutional isomorphic pressures, even when there is a little complexity. Oliveira and Martins (2010) argued that the most important factor in the adoption is the industry and their specific characteristics and not the country to which the firm belongs. This can be understood as either the challenges are unique to each industry or the characteristics of the industry will pose a unique challenge to ERP adoption.

5.9 MULTIPLE MEDIATION OF THE INSTITUTIONAL ISOMORPHIC PRESSURES TOWARDS ERP ADOPTION

Finally, the interactions between the motivational factors are tested simultaneously in the multiple mediator model. The results show how
each variable influences the ERP adoption, when other factors are present together. In addition, their individual and collective responses, the external pressures are also analysed. To investigate the mediating effect of the variables, the direct effect of institutional isomorphic pressures on ERP adoption is compared under two conditions - one in the absence of the mediating variables and the other in the presence of the mediating variables.

The results show that the direct effect of the institutional isomorphic pressures on ERP adoption is high which is ultimately is reduced when the perceived benefits, perceived challenges and the organisational complexity are included. This indicates that the total effect is partly caused by the indirect effect or the mediation effect. In addition, to examine the type of mediation, the change in the direct effect is observed. Since the direct effect does not become zero or negative when the mediating variables are included, based on Zhao et al’s (2010) recommendation, it is concluded that the mediation effect is complementary in nature. The overall results can be theoretically interpreted in two different perspectives. The total affect of institutional isomorphic pressures increasing in the presence of perceived benefits, perceived challenges and organisational complexity, can be said to support the institutional isomorphic pressures and drive the ERP adoption. Secondly, the reduction in the direct effect of perceived benefits, perceived challenges and organisational complexity on the ERP adoption, can be interpreted as that the forces are compromised when the institutional isomorphic pressures forces the firm to adopt ERP.

Beers and Zand (2010) in a similar study used the benefit and cost in a direct and indirect relationship to firm performance. They term the direct effect as the facilitation role and indirect effect as the enabling role.
In the same concept the outcome of this study can also be interpreted to mean that the institutional isomorphic pressures facilitates the ERP adoption and the perceived benefits, perceived challenges enable the ERP adoption along with pressure.

Oliveira and Martins (2010) found that perceived benefits and obstacles, competitive pressure and trading partner collaboration are the drivers that are important for IT adoption. Similar to this study, they also found that the organisational characteristics indicated by the organisational size were a controversial predictor of IT adoption. The effect size of organisational characteristics was found to be weak in mediating the institutional isomorphic pressures towards ERP adoption. This can be interpreted in line with Oliver’s (1988) findings that support the strategic choice perspective and suggest that the environment is not highly deterministic in shaping organisational characteristics. That is when strategic choice factors such as benefits and challenges strongly mediate the ERP adoption, organisational complexity, which becomes more homogenous, has a reduced impact on ERP adoption. However, the significance in individual mediation model is attributed to the findings of Hannan and Freeman (1977) who argued that isomorphism is the result of competitive pressures that force the organisations facing the same set of environmental constraints to adopt similar characteristics relative to one another.

While looking at the specific indirect effect, the perceived benefits have a higher mediating effect than the perceived challenges and organisational complexity. In economic justification, the benefits have more weightage than challenges. Similar to this study Keating et al. (2009) have found that the benefits of ERP are weighed almost twice as important as the
risks when making an ERP investment decision. Wu (2011) argued that elements of set of ERP benefits do not necessarily share the same importance. However, firms will actively adopt ERP when their set of perceived benefits exceeds their perceived risks and costs.

In addition, the influence of perceived challenges on perceived benefits was also positive and significant and both factors together significantly mediate the institution pressure in the final model. The presence of challenges adds to the benefits. Al-Fawaz et al. (2008) supported this from their findings that despite some organisations facing challenges in undertaking ERP implementations, many have enjoyed the benefits that the system have brought to the organisation. Organisations cannot embrace the full benefits of complex ERP systems without tackling challenges such as lacking proper business plan and vision, re-engineering business process, user involvement, education and training.

The mediation effect found from this study reiterates that the institutional isomorphic pressures cannot act alone. Powell and DiMaggio (1991) and Oliver (1991) argued that the institutional isomorphic pressures has been criticised for painting organisations and actors as passive recipients of institutional forces.

While interpreting the mediation effect of the perceived benefits and challenges in this study, the responses of the motivational factors can be interpreted on the basis of the response strategies proposed by Yoo et al. (2007), who developed an institutional framework of local responses to new IS based on Oliver (1991). The framework provides an idea of response strategies of the organisation to a new institutional force and a new IS. They define the institutional logics as the uniqueness of the organisation
embedded with its own goals and values. DiMaggio (1997) identified institutional logics as logics of action. Logic of action is defined as an implicit relationship between means and ends underlying the specific action, policies and activities of organisational members.

Yoo et al. (2007) suggested that in a strong pressure and the institutional logics being congruent, the organisation respond with acquiescence, process adaptation and system configuration. In strong institutional isomorphic pressures and the logics being incongruent, the response will be compromise or avoidance of the force and process adaption, system customisation, improvisation and resistance to the IS. When the pressure is weak and the logics are incongruent, the response will be defiance to the pressure and resistance to the IS. In the same situation when logics are congruent, the response will be manipulation of the forces.

Applying the above response strategies to the current study, it can be interpreted that when institutional isomorphic pressures are high and the perceived benefits are high, the response strategy will be compromising on the perceived challenges and a partial conformity to ERP adoption need. The overall outcome of this study is the validated model of the interaction between the motivating factors of ERP adoption in SME cluster of the knitwear garment industry (Figure 5.1).
Latheef Kizhisseri and Pramod John (2006) quoting the uniqueness of the Tirupur Knitwear garment Cluster. The garment clusters have a horizontal and vertical integration. Due to the vertical integration, there is a high degree of inter-dependence among the small firms. This is contrary to the structure of garment manufacturing units in China, due to the government policy of reserving the textile sector to small-scale sector has witnessed splitting up of units to remain small. This is done for easy management, for escaping from labour regulations that come into force when the firm grows to become large and/or to enjoy the policy related advantages that the small firms are entitled. They also quoted that distinction of small and large is difficult in Tirupur. Designation of the unit

**Figure 5.1** The validated model of ERP adoption

### 5.10 IMPLICATIONS AND RECOMMENDATIONS

Latheef Kizhisseri and Pramod John (2006) quoting the UNIDO’s comparison on the SME industrial clusters in India, presented the uniqueness of the Tirupur Knitwear garment Cluster. The garment clusters have a horizontal and vertical integration. Due to the vertical integration, there is a high degree of inter-dependence among the small firms. This is contrary to the structure of garment manufacturing units in China, due to the government policy of reserving the textile sector to small-scale sector has witnessed splitting up of units to remain small. This is done for easy management, for escaping from labour regulations that come into force when the firm grows to become large and/or to enjoy the policy related advantages that the small firms are entitled. They also quoted that distinction of small and large is difficult in Tirupur. Designation of the unit
as small scale in many cases means that firms which are expanding do notional separation of new units and register them as separate units (despite common ownership). This gives the distorted impression of an industry composed solely of small and medium sized individual firms. But, in fact including many units owned by the same person or family or partnership firm, and some of them though small/medium in appearance have turnover above the million mark.

Though limited to the knitwear garment industry, the study is justified because of the problems faced by this industry owing to the competition from the neighbouring countries and the need for increasing productivity and reducing cost. Khare et al. (2011) proposed that the globalisation, technology, outsourcing, supplier collaborations and customer relationships inter-play and fuel the drive towards adoption of IT in apparel industry. Many studies have recommended the need for adoption of ERP by the firms to be competitive and obtain a substantial business performance. The SME cluster of knitwear garments has already started adopting ERP (Ding et al. 2011) and this initiative has led to a stronger regulatory pressure that arises out of institutional isomorphic pressures. However, the rate of adoption is slower. This study developed a model by analysing the adopters and non-adopters that prescribes the motivating factors for ERP adoption. The model highlights that the institutional isomorphic pressures, when supported by the awareness of the benefits and challenges, can lead to an increased intention to adopt ERP.

The institutional isomorphic pressures tend to have more influence on SMEs than what large businesses have due to their higher interdependency and being a weaker partner (Saunders and Hart 1993). Therefore, most SMEs are under pressure to adopt ERP, if its business
partners mandate or recommend it to do so (Alizai and Burgess 2011). Though the larger firms have enough justification on the requirement, the economic strength and a suitable ERP solution, the SMEs still find many obstacles in adopting the ERP. The most common obstacles that are felt are high expenses, insufficient technologies, high level of customer involvement and inefficient operations (Yeung and Choi 2011). The notable characteristic of this knitwear cluster is its high disintegration that has led to the growth of small and micro units (Joshi and Singh 2010). Due to these characteristics of the SMEs, it is felt that there is no right solution that suits them.

At present, the initiatives in the cluster are still focused on the basic ICT. Following the suggestion of Peppard and Ward (2004), the firms need to move from the basic ICT to a strategic level enterprise systems. The cluster development agencies, world bank, etc have already involved themselves in the promotion of ICT among the knitwear units. Yet the firms may require moving to the next level of adopting integrated solution such as ERP. However, this initiative can indirectly encourage the ERP adoption. Koellinger and Schade (2010) found that the probability of adoption increases with the number of previously adopted e-business technologies. They suggest a relevant marketing and strategic plan for the convergence of new technologies over and above the available technology.

Huifen and Chinag (2010) commented that an ERP system has embedded rules and norms from pre-existing institutions that serve both legitimate and facilitate inter-organisation isomorphic structure. Hurtado et al. (2010) suggested that the higher the isomorphic pressures, the higher the level and the speed of technology adoption. The normative pressures exert the strongest influence on these processes.
This study has found out that the government pressure is non-existing. Zhang et al. (2007) support this finding by suggesting that although government cannot directly influence firms’ IT adoption, it does so indirectly by influencing firms’ IT infrastructure construction and management. The government, in the form of TUFs allowed a subsidy on the margin money and interest reimbursement of the cost of information technology including ERP. This kind of government support is necessary for the promotion of technology for the SME’s. The government has made it mandatory for certain e-governance such as tax payment, import export licensing etc. Similar regulations on customs and excise duties can encourage the use of ERP. The initiatives promoted for finding a proper ERP package that suits the processes and unique practices seem to be disintegrated. Institutional isomorphic pressures have been found to have an influence on the ERP adoption.

The adoption of ERP is likely to be rigorous, when promoted by the trade associations. Therefore, trade associations need to be more proactive and aggressive in supporting the development of an ERP solution. A right product and its strategic alignment has always been a problem with the packaged software. SaaS model of ERP has been identified as an economic solution for small and highly disintegrated business (Sharma et al. 2010). SaaS model of software development that is designed specifically for the knitwear garments cluster is the need of the hour and this kind of collective requirement can only be coordinated by trade associations. The business can install enough number of licensed nodes and can utilise only modules required for the processes that they carry out internally. With the availability of the right product, the study prescribes that the institutional members such as government, associations, and other agencies, may induce a regulatory pressure, which will drive the ERP adoption in the cluster.
This study proposed hypotheses on the perceived benefits and the ERP adoption as recommended by Nafeeseh and Al-Mudimigh (2011), who quoted the suggestions of other researchers to build hypotheses and scenarios around the expected benefits that clarify and help the decision-makers to understand deeply how the benefits could be achieved. The study found that the industry is aware of the tangible benefits of operational, managerial and infrastructure, but not aware of strategic and organisational benefits. This again shows that basic ICT and the advanced technologies like ERP are just known as an automated solution to their routine jobs and not as a competitive tool. Therefore, the stakeholders need to create awareness on intangible benefits at strategic and organisational level needs to be communicated. Ding et al’s (2011) statements support the findings of this study. They suggested that since the apparel industry is a demand driven and highly globalised industry, it must adjust its strategies and redeploy ICT facilities in order to meet the customer demand. Managers should consider ERP system as a business solution and not as yet another IT project (Mehrjerdi 2010). The stakeholders should also understand how to access the intangible benefits of ERP and to appreciate the investment in ERP projects. This study also helps the firms and the vendors to understand what kind of benefits are being envisaged by the industry from ERP. It helps in redesigning the ERP and its promotion. Upadhyay et al. (2010) from their case studies found out that the failure of ERP from the management’s side were due to lack of clarity of goals and objectives in implementations. It was more of a case of pushing to sell the ERP packages on the part of the vendors by making false claims regarding business benefits and profitability demonstrations.

Despite the benefits and the external pressure, the adoption of ERP is still low among the SMEs. Upadhyay et al. (2011) reported that
even when the SMEs adopt an ERP system, after the implementation, the organisations are still depending on their legacy systems and even treating the cost incurred in implantation of ERP as sunk cost. This kind of scenario can be attributed to the lack of qualified staff and resistance from the employees. Similar kind of challenges are found in the Tirupur knitwear garment industry, where the pressure from the buyer has been translated into ERP adoption but utilisation and the realisation of benefits are still a challenge.

The lack of qualified staff and people related challenges are felt to be the largest barrier in the knitwear garment industry. Chang et al. (2010) found that the employees with IT skills play a critical role the in adoption of strategic technologies like ERP. The industry can give more training support to the employees and communicate the belief in the benefits of ERP and motivate them to assimilate ERP. User resistance can be reduced by proper motivation and training. The other institutional members such as associations and educational institutions should focus on producing trained employees with necessary skills. The increased availability of right people will reduce the retention problem. This will require the joint development of vocational - technical college curricula that trains people with ERP skills. The vendors and consultants should join in providing training support not only within the implementing firm but also in generating skilled human resource. The few adopted firms are finding it difficult to retain the employees who are trained in ERP. They feel a pressure in retaining them and sometimes wind up the ERP support for lack of skilled operators. This situation can be avoided if human resource is available with proper training in ERP software. This may expect the industry to adopt a common solution.
There is a perception on the lack of standardized practices within the industry. This can be attributed to the large disintegration and the size of the firms. This creates a problem of aligning the packaged ERP to the process of the industry. Since the knitwear garment cluster is matured, vendors and consultants can concentrate in producing a suitable package that embeds both the unique practices of the industry and the global best practices. This will avoid the major business process reengineering and the package customization problems. High cost of ERP has been a major concern and a challenge for the SMEs. Lemieux et al. (2010) suggested that the vendors can have a different pricing strategy for SMEs. Depending on the low initial level adoption rates, they recommended that discounts should be offered.

This study has found out that the perceived benefits, perceived challenges and organisational complexity have a mediating role in ERP adoption motivated by the institutional isomorphic pressures. Therefore, the regulatory and other normative forces rather than just inducing pressure towards ERP adoption should engage in creating awareness on the benefits and challenges. Therefore, for a better adoption rate, the vendors and consultants should attempt to increase the awareness on the challenges and benefits of adopting ERP. This study recommends that the mere institutional isomorphic pressures cannot increase the ERP adoption and the mediating factors need to support the pressure. Lai et al. (2010), suggested that the mimetic forces, as in the isomorphic pressure, are more influential only on smaller scale ERP implementations and the evaluation forces such as cost-benefit analysis or a logical model are more critical on larger scale implementations.
This study has found that organisational complexity influences perceived challenges. This can be understood as organisational complexity perpetuates through the perceived challenges and then reduces the perceived benefits. Therefore, when addressing the challenges in the ERP adoption, the stakeholders and enablers of ERP adoption should also address the organisational complexity. Necessary features should be embedded into the ERP package, which takes care of each of the characteristics of the SMEs that may add to complexity. When the organisational complexity is taken care of, its effect on ERP challenges can be reduced and thereby increase the ERP adoption.

The study has also found that the perceived challenges have influence on the perceived benefits. This proves that there is a need to work on the risks and barriers to reduce the perceived challenges. Although implementations of ERP are complex and costly, firms may actively adopt and engage in such ERP implementations, if perceived benefits exceed perceived risks and costs (Wu 2011). Gattiker and Goodhue (2000) found that the ERP practices embedded in a package pose a challenge to the ERP adopting firm. They found that the new practices seem awkward in some plants, but eventually these ugly ducklings are transformed into swan. Therefore, perceived challenges initially may reduce the perceived benefits. However, if the firm chooses to adopt the ERP despite the perceived challenges, it may turn to give the expected benefits. Chou and Chang (2008) found that the customisation and organisational mechanism that this study has proposed as perceived challenges has an effect on intermediate benefits, which in turn influences the overall benefits. Therefore, the challenges need to be tackled for an enhanced ERP benefits. The firm’s perception on the perceived challenges should be modified by providing enough awareness so that the benefits will lead to increased adoption.
The role of the management consultants and the trade associations strongly influence the ERP adoption. Along with the management consultants, normative pressure produced by the internal employees who already have a positive attitude towards ERP and stand as champions of ERP can be a reckoning force towards the ERP adoption. Huang and Galliers (2011) suggested that the external stakeholders such as management consultants or professional associations can be equally influential in creating and mobilising their rhetoric to drive and raise the popularity of an innovation. The study has listed the factors that are perceived high in this particular industry. Stakeholders need to identify the sources of these challenges in the context of ERP implementations and address them individually to manage them He and Wu (2006) listed some unsettled issues that hinder the ERP adoption such as language barrier, ERP not applicable, when transaction cost and data integration are not critical. They even extend that ERP is still questioned to be applicable to SMEs.

Backward integration and consolidation have become crucial for the growth of textile industry. This integration provides assured quality, timely delivery and saving on transport cost (Sujatha and Ghosal 2010). Added to this, the knitwear technology mission that plans for the manufacture of knitwear garments using manmade fibres will change the production process and the administrative setup. The firms will need more flexibility in the business and this restructuring of the firms in the cluster will force towards an integrated information technology in alignment with their expansion and extension.

Exporters in Tirupur now have a cloud-computing model, home grown from Ramco Systems and customised and maintained by HCL. ERC and TEA are jointly pitching to promote a special purpose vehicle for
this cloud-computing model. As found from this study, the pressure from the association can encourage the adoption. In addition to this, TEA has also waived the one-time fee for six months. They expect that, in five years there will be nearly 4000 users, who will adopt this ERP (Mishra 2011). However, this study recommends that mere a promotion and pressure towards adoption of ERP will not produce enough penetration and the stakeholders should also look at other facilitating factors such as training, producing skilled employees, financial and technical support etc.

This study recommends that the organisations should justify the enterprise wide projects based on cost justification and economies of scale. Consultants should commit to train end users. The resistance from the employees should be managed by change of attitude through leadership, effective communication of benefits and preparedness against risks. Davenport (1998) argued that cost-benefit analyses are conducted by all companies as a project appraisal and return on investment measurement. The real drawbacks that impede the successful outcome are embedded within the implementation stages where congruence between company’s culture, strategic goals and execution of new ERP system are lost. However, this study was designed to investigate such congruence of institutional isomorphic pressures with the cost benefit analysis in the project. On the response strategy, the managers should be aware of the benefits and challenges and also look at their business process complexity before confirming to the institutional isomorphic pressures. Such awareness could help the managers to consciously choose not to comply with the institutional norms when they believe that such compliance many not be value yielding. They also highlight that use of financial metrics such as total cost of investment and return of investment should be considered in
investment decision on ERP. The compromise on the motivational factors needs to be evaluated on the opportunity cost (Ravichandran et al. 2009).

Institutional arrangements that are similar to the knitwear garment cluster are seen in the clusters of non-perishable products that have process complexity and possibility to split the production process is there. The knitwear garment units are concentrated in Tirupur, which accounts for majority of the total knitwear exports and rest are situated in Ludhiana. The institutional arrangement of knitwear garment cluster can be directly compared to the other textile clusters that are manufacturing readymade garments and textile products based on cotton, synthetic and woollen fibre. Such textile clusters are seen in NCR region, Anantpur, Ahmedabad, Bangalore, Indore and Kolkata. Leather based garment manufacturing and the footwear manufacturing have a similar process and structure and compared to the knitwear garment cluster. Based on the integration of firms in the cluster, knitwear garment cluster can be compared to the auto-component and pharmaceutical industry. Therefore, the implications of this study lend itself for applying in such similar industrial clusters.

5.11 SUMMARY

In this chapter, the major results were interpreted and compared with the prior findings. The results were discussed on the conceptual idea, observations in the industry, interview with the experts and the relevant literature. The discussions lead to provide an answer to the research question and provide an understanding to the objectives designed for the study. The implications to various stakeholders were provided and recommendations were suggested to improve the ERP adoption in the SME cluster of knitwear garment Industry.