Chapter 7

Findings, Results & Discussions

The results of the testing and the key findings are discussed in this chapter.

7.1 Adoption of Internet

The manufacturers have enabled a number of applications on internet for use by the distributors. These include email communication, online order entry and accessing information. In order to study the usage of these applications by the distributors, they were asked to rate their responses on a seven point Likert scale vide the questionnaire administered on them. The responses of the distributors are summarized vide Table 5.6. The responses indicate that all the following eight applications have been used by the distributors in varying degrees. The applications in the order of usage are listed below:

- Email usage
- Track order status
- Access Stock information
- Access product information
- Access statement of accounts
- Access Price Lists
- Access performance figures
- Order Entry

Email usage is the most widely used application whereas Order Entry is the least used application. For general communication with the manufacturer, distributors adopt email communication as it is simple to use and fast to communicate. Order Entry, which refers to online order entry into the ERP, appears to be not very popular with the distributors as they do not perceive it to be beneficial. Other applications involving tracking order status and accessing information are widely used.

This reinforces the findings of Graham and Hardekar (2000) that communication and interaction over the internet is primarily for sharing product and ordering information and improving customer service.
7.2 Interpretation of the results of Confirmatory Factor Analysis

i) Model for Adoption of Internet

Jelassi and Leenen (2003) have argued that Internet technology is being used to enable integration of value and supply chains with key partners, by supporting business processes to improve speed, agility, real-time control and customer satisfaction. This is done largely through the use of computer and communication networks to transfer information electronically.

This measurement model analyses the data to answer the fundamental question: How is internet adopted by the distribution channel? The various indicators of this construct are given vide section 7.1 above. The confirmatory factor analysis has validated this measurement model indicating that the distributors have adopted all the applications in varying degrees.

ii) Model for Enablers

Confirmatory factor analysis has validated the following five measurement variables: a) Easy to get connected to company’s website, b) Speed and Availability of internet, c) Ease of navigation of website, d) Ease of downloading information and e) Staff is conversant with internet. These are the perceived ease of use factors which influence distributor to adopt internet.

The measurement variable “staff is conversant with internet” has showed a relatively weak relation. As the level of computer literacy has gone up in the country, competency in use of internet has become quite common and is no longer a barrier for adoption of internet.

iii) Model of Motivators

Confirmatory factor analysis has validated the following six measurement variables: a) Ease of sending and receiving email, b) Ease of order entry in ERP, c) Product / technical information is updated, d) Accurate information of order status, e) Faster availability of information and f) Convenience of accessing information
These are the benefits of adoption of internet perceived by the distributors, which have a bearing on the motivation of distributors for use of internet.

iv) Model for Order Entry Benefits

Confirmatory factor analysis has validated the following five measurement variables: a) Ease of order entry, b) Orders get registered faster, c) Online orders get priority, d) Orders are entered more accurately and e) Order entry is possible for all orders. These are the perceived benefits specifically linked to use of online order entry feature.

v) Enhanced Order Execution Performance

Confirmatory factor analysis has validated the following five measurement variables: a) Better execution of customers’ orders, b) Ability to commit realistic delivery times, c) Ability to supply products at short notice, d) Quality of follow-up with manufacturer has improved and e) Faster information to customer regarding status of orders. These are the indicators of improved order fulfillment and service to customers, and help the distributor to enhance relationship with his customers.

vi) Improved Management of Working Capital

Confirmatory factor analysis has validated the following five measurement variables: a) Better control over inventory, b) Handling of critical and slow moving stocks, c) Better planning of payments to the company, d) Improved dispatch to cash cycles and e) Availing of cash discounts. These factors enable the distributors to efficiently manage their inventory, payables and receivables which lead to their increased profitability.

vii) Improved Responsiveness

Confirmatory factor analysis has validated the following five measurement variables: a) Reduced dependency on manufacturer, b) Improved customer face time due to reduced follow-up time, c) Improved monitoring of business, d) Faster response to customers queries and e) Improved quality of relationship with
manufacturer. These factors enable the distributor to improve his response to customers and monitor his business better.

7.3 Interpretation of the results of SEM of the conceptual models

The results of Structural Equation Modeling of the two structural models representing the two research issues are discussed below

7.3.1 Research Issue No.1: What are the factors which have facilitated adoption of internet by the distributors?

The conceptual model postulates that adoption of internet for distribution in switchgear industry is influenced by three factors viz. Enablers, Motivators and Order Entry Benefits.

Hypothesis H1: Enablers are positively related to the adoption of internet by the distributors.

Findings of this research support the hypothesis that enablers positively influence adoption of internet by distributors. This is in line with the TAM of Davis (1989) which postulates that Perceived Ease of Use is one of the primary influencing factors for adoption of new technology. Survey has found that the manufacturers have found ways to improve the various enabling factors in order to make it easy and simple for the distributors to adopt internet.

A study of Egyptian B2B Digital Market places in Egypt (El-Hadary, 2001) has found that users' experience had a positive influence on the adoption decision.

Hypothesis H2: Motivators are positively related to the adoption of internet by the distributors

This conclusion relates to the perceived usefulness of adoption of internet by the distributors. TAM of Davis (1989) postulates that Perceived Usefulness is one of the primary influencing factors for adoption of new technology. In a study regarding the factors affecting the acceptance of B2B Digital Market places, Perceived Benefits and Information Richness were found to be a significant factor that influences the
adoption decision (El-Hadary, 2001). This seem to be in line with previous studies in the field of innovation adoption (Rogers, 1993), Internet Based Information Systems (Soliman, 2000) and the Internet (Poon and Swatman, 1999).

The perception of distributor regarding the benefits of using internet is an important factor which motivates him to adopt internet. Results indicate that factors like ease of sending email, regular updating of product information on website, availability of accurate information about order status, faster availability of information and convenience of accessing information on 24 X 7 basis act as motivators for distributors to adopt internet.

Manufacturers who have realized the motivational factors for adoption have internet enabled the interface with their distributors in such a way that the distributors find it useful and convenient to use internet for day to day communication with the manufacturer.

Hypothesis H3: Order entry benefits are positively related to the adoption of internet by the distributors.

According to a study by Lippert (2008) TAM antecedents (perceived usefulness and perceived ease of use) exhibited an effect on technology utilization. Another study by El-Hadary (2001) indicated that users’ experience and relative advantage had a positive influence on the adoption decision.

This hypothesis stands disproved. The distributors do not perceive any advantage of online order entry over the other options of order placement. Other options of order entry, such as, sending order over email, sending to Customer Care Centre or visiting manufacturer’s office are easier and more convenient. Also, the project orders which constitute a large share of the total orders placed by the distributor, can not be entered on line.

This is an important observation. In order to promote adoption of internet for on line order entry, manufacturers would have to re-engineer their internet enabled order entry strategy to create a pull for on line order entry by offering incentives or benefits to make it more attractive over other forms of order entry.
7.3.2 Research Issue No.2: What is the impact of adoption of internet on the operational parameters of the distributors?

This conceptual model postulates that Adoption of Internet leads to improvement in order execution, working capital management and responsiveness of the distributors.

Hypothesis H4: Adoption of internet is positively associated with enhancement of order execution capability of distributors.

This conclusion is related as to the how adoption of internet impacts the relationship quality between the manufacturer and the distributors. Aspects of relationship quality are trust, commitment, satisfaction and service quality (Papassapa et al, 2007). Improved order servicing improves the relationship quality between the manufacturer and the distributors. Distributors can regain the channel initiative by combining high-quality fulfillment and customer service with online information and ordering (Fein, 2007).

The results of this research indicate that adoption of internet by distributors enhances their order execution capability. This in effect means improvement in on-time order execution, ATP, supplying products at short notice, more effective follow up for critical items and providing faster information to customers.

Hypothesis H5: Adoption of internet is positively associated with improved management of working capital.

This hypothesis also suggests that adoption of internet improves the relationship quality between the manufacturer and distributor. Enabling the distributor to have better control on his working capital improves the trust and commitment between the distributor and manufacturer.

Existing literature survey has commented on this aspect of adoption of internet by distributors. Adoption of Internet can also help build partner loyalty, although this benefit is harder to measure. “If I can use the Internet to give the distributor more information about the product, services and maintenance schedules, and can let them manage their accounts online, 24 by 7, perhaps that distributor will be more loyal to
me than they would be to a manufacturer using traditional sales methods.” (Joachim, 2000).

The findings of this research indicate that adoption of internet results in better management of working capital. Distributors who adopt internet improve their working capital management as it gives them access to stock status of the manufacturer, facilitates availing of payment rebates and performance bonuses, and shorten dispatch to invoicing cycles.

The practical implication is that manufacturers are encouraging the distributors to adopt internet as it improves the trust and commitment of the distributors. The distributors also have realized that internet improves their operational effectiveness.

Hypothesis H6: Adoption of internet is positively associated with improved responsiveness of the distributors.

This conclusion also affects the relationship quality between the distributors and manufacturer. There is a considerable amount of reference to the effect of internet on B2B relationships. Information technology enabled connectivity can facilitate trade efficiency, therefore, the relationship. With information sharing, business partners can strengthen relationship as well as their competitive position (Griffith and Palmer, 1999). In Internet business relationships amongst various partners, trust is very important (Jevons and Gabbott, 2000). Further, the level of internet adoption had a significant positive relationship with competitive advantage (Teo and Pian, 2007).

The findings of this research indicate that distributors who have adopted internet have reaped the benefits of improving their operational efficiency by improving their responsiveness. This is because internet has enabled them to reduce dependency on manufacturer, reduce follow-up time with the manufacturer, and improve monitoring of business and respond faster to the customers. This supports Williamson (2007)'s finding that Internet impacts relationship by increasing the communication and coordination with business partners and improving trust and confidence among partners.
An important contribution of this research is highlighting the benefits of internet adoption by distributors on their operational effectiveness and relationship quality between the distributors and manufacturer. This shall encourage more distributors to adopt internet and also encourage the manufacturer to more aggressively implement initiatives to motivate distributors to adopt internet.

7.4 Chapter Summary

The interpretation of the results of Confirmatory Factor Analysis has validated researcher's understanding of the constructs related to adoption of internet. The interpretation of results of Structural Equation Modeling and testing of hypotheses has provided the answers to the two research issues concerning the factors facilitating the adoption of internet and impact of adoption of internet. Enablers and Motivators facilitate adoption of internet. Adoption of internet positively impacts the critical operational parameters of the distributors and improves the relationship quality between the manufacturer and the distributor. Research conclusions and the author's recommendations are given in the next chapter.