Chapter 3

SAP-LAP Analysis of Indian LV Switchgear Industry

While identifying the research issues, the researcher reviewed existing literature regarding use of internet in distribution. The researcher identified literature about the models for adoption of technology and various e-business technologies used. Literature survey also brought forward the critical success factors of channel management. However there appears to be no investigation of the subject of usage of internet by the Indian LV switchgear industry for their distribution channels and hence this case study.

The case study covers three leading manufacturers and one each of their distributors. The cases will be blended with the literature review to identify the key issues concerning the adoption of internet by the Indian LV switchgear industry.

3.1 Case Study of Indian LV switchgear industry

SAP-LAP model of inquiry has been adopted for the case analysis. Case studies should be selected to be broadly representative of the large group from which they are drawn, which will enable the researcher to generalize from the results (Moore, 1983). Three manufacturers, Larsen & Toubro, Siemens and Schneider, who together account for over 55% of the market share, and three distributors have been selected for the case study.

3.1.1 SAP – LAP Framework

Inquiry into managerial situations, problems and issues is needed very often. Basically, any managerial context consists of a “situation” to be managed, an “actor” or a group of actors to deal with the situation and a “process” or a set of processes that respond to the situation and recreate it. The “situation”, “actor” and “process” and their interplay comprise of the SAP framework. The interplay and synthesis of SAP leads to Learning – Action – Performance (LAP). In order to gain deep insight and for
effective action, an SAP-LAP model of inquiry may be developed by identifying critical questions in each element of the SAP-LAP paradigm (Sushil, 2001).

“Situation” is external and internal environment of the organization and its performance. “Actor” can be individual managers, groups, departments or class of actors. The interface of “actor” and “situation” defines the organizational climate and culture that is important for the evolution of the business processes. “Process” is the overall transformation converting inputs into outputs. The interface of “actor” and “situation” defines the organization climate and culture that is important for the evolution of the business process. The interface of “actor” and “process” defines the strategy, structure and systems that need to be transformed for organizational change. The interface of “process” and “situation” defines the contingency to be taken care of and adaptation and response of the process to the changing situation (Sushil, 2001).

We need to learn about the situation, actor and process and bring out key “learning” issues of interest. Based on the learnings, the “action” is to be taken on the fronts of situation, actor or process or the relevant interfaces. Depending upon the effectiveness of actions, “performance” is generated in terms of improved processes / actors and better situational parameters. In a business situation, the performance parameters could be market share, profitability, quality, productivity, competitive advantage, core competence and so on (Sushil, 2001).

The SAP-LAP framework as applied to case study of the three manufacturers along with the critical questions in each of the elements of SAP – LAP is depicted in Fig 3.1.
Actors
Who are the stakeholders impacted by adoption of internet for distribution?
What are their problems, expectations and their response?

Situation
What are the critical success factors for your business?
What is the current status of your distribution network?
What is the status of adoption of internet in your distribution channel?
iv. What are the objectives of adoption of internet in your distribution channel?

Learning
i. What are the enabling and impeding factors for adoption of internet?
ii. What are the benefits of adoption of Internet?
iii. What are the problems faced in adoption of internet?

Processes
What is the process of adoption of internet in your distribution channel?

Performance
How do the actions taken improve the performance of the distribution channel?

Action
What actions are required to be taken to address the issues arises out of learning?

Fig 3.1 Model of SAP – LAP for LV switchgear industry
Source: Developed for this research
3.1.2 Case Analysis through SAP – LAP framework

The case studies have been prepared based on a combination of administration of questionnaire and personal interviews. First the questionnaire was administered to collect the background information and then the interview was conducted to elicit the views on the specific issues. The list of the interviewees and the questionnaire are given in Annexure - A (Exhibits 1, 2, 3). A background of the company is followed by the answers to each of the questions depicted in Fig 3.1.

3.1.2.1 Manufacturers:

Case 1: Larsen & Toubro Limited:

Larsen & Toubro Limited (L&T) is a US $10 billion technology, engineering, construction and manufacturing company with its headquarters at Mumbai. The company operates through multiple divisions and Electrical Business Group (EBG) represents LV switchgear business of the company. The company has been in the business of LV switchgear in India for over 50 years and a market leader with a market share of over 25%.

The strengths of the company are: a wide product range, a loyal distribution network and a strong service orientation. Its distribution network consists of 650 distributors spread across the country. Over 95% of the company’s sales are handled through the distribution network. The company also handles some key customers directly due to some strategic reasons.

The company has two factories, at Mumbai and Ahmednagar. Prior to implementation of ERP, the products were stocked at 14 warehouses located at various branch offices across the country.

The distributors were sending the orders to the company either through post, over telephone or personally handing them over at the branch office. A sales clerk at the branch office of the company processed these orders manually and prepared the delivery note which was sent to the nearby warehouse. The storekeeper at the warehouse then dispatched the materials to the distributors and sent the shipping
documents to the office for preparation of invoice. Accounts clerk at the sales office prepared the invoice and posted the invoice copy along with the shipping documents to the distributors. The whole process from the receipt of order at the sales office to the dispatch of invoices was taking an average of 14 days.

Inventory was updated manually by the storekeeper at the warehouse. So, there were errors in the information about the stock levels available at the sales office and dispatches were often delayed as delivery note needed to be sent back to office for corrections.

The distributor had to call or visit the sales office frequently to check about the status of his orders and get details of invoices and dispatches. A considerable time of the distributors was spent in such follow-ups with the sales office. The sales officers were spending considerable time at office for attending to the queries from the distributors. Since the inventory was distributed at 14 different warehouses, the company had to carry a large inventory to service the requirements of the distributors. Delay in dispatch of invoices and statement of accounts also resulted in longer order to cash cycles for the company.

In order to address the above issues, the company took the initiative of implementing an Enterprise Resource Planning (ERP) package SAP in 1998. As part of ERP implementation, all the factories, warehouses and sales offices were linked to a central server. Logistics were rationalized by reducing the numbers of warehouses from 14 to 5. Over the next two years the company realized the following benefits: reduction in order to dispatch times, improvement in order fill rate, shorter order to cash cycles, reduction in inventory and improvement in the availability of materials to the distribution channel.

In order to carry forward the impact of ERP implementation into the distribution channel, the company took the following initiatives in the year 2001.

- Launched a B2B website providing information about the company's products.
- Distributors were given access to the company's ERP through internet.
Distributors were given User ID and Password through which they were able to access the company's website / ERP through internet and carryout the following functions:

- Online order entry.
- Access and download information on products.
- Access information on product availability, statement of accounts, pricelists and their performance figures.
- Online tracking of the status of their orders and dispatches with the company.

A Customer Interactive Centre was setup in Mumbai in 2008 which can be accessed over telephone and email by customers and distributors for information regarding the products, orders, dispatches, logistics, etc.

Customers can access the company's website for viewing and downloading product/technical information. They also can contact either the concerned distributor or Customer Care Center for the same information.

**Situation:**

i. The critical success factors are availability of products to the customers and effective management of inventory and receivables.

ii. The company has a distribution network of 650 distributors. The company has achieved the leadership position due to the wide reach of the distribution network and strong service orientation towards the customers. The company has implemented ERP package SAP in 1998 and this has been periodically upgraded to the latest versions.

The company has manufacturing facilities at Mumbai and Ahmednagar. It has warehouses at Nagpur, Delhi, Kolkata, Ahmedabad and Mumbai. The warehousing and the logistics activities are totally outsourced.

iii. The company has adopted internet for connecting the distributors to the company's ERP / website. All the distributors are given user id / password
through which a distributor can access the company’s website / ERP through internet connectivity. The company has enabled a number of applications including online order entry. The usage of the various applications by the distributors is purely voluntary.

The company’s distributors play a key role in promoting and selling the company’s products based on the strong relationship with the customer. Hence the company has not found it feasible to use internet as a distribution channel for their products.

iv. The main objectives of connecting the distributors to the company through internet was to enable on line order entry by the distributors and facilitate fast flow of information regarding orders, dispatches, inventory and statement of accounts to the distributors.

**Actors**

i. Top Management, Sales Force and Distributors.

ii. Top Management finds that substantial time of the sales force is spent on managing order execution related issues. Similarly distributors also spend considerable amount of time in follow-up with the company for issues related to orders, payables and product information.

Adoption of internet is expected to release precious time of sales staff and distributors for customer coverage. Top management considers adoption of internet is an important initiative for improving the operational effectiveness of the distribution channel and strongly supports the initiative of connecting the distributors through internet.

Distributors expect to get faster information from the company regarding order status, dispatches, statement of accounts, prices and performance figures. While a large number of distributors have adopted internet for accessing information, adoption of internet for order entry is restricted to a smaller number.
Process

Implementation of ERP has integrated various logistics functions within the company. This integration has been further extended into the distribution channel by connecting the distributors through internet.

A distributor accesses company’s website through internet connectivity and from there he accesses the ERP through User ID and Password. From the website, distributor can view and download product catalogues and other technical information.

By accessing ERP, he can carry out online order entry into the system for all standard orders, for which he immediately receives an order reference number. Project orders cannot be entered online into the system by the distributor and orders for these are sent to company’s sales office through email. These orders are entered into the system by the company’s staff at the sales office after these are duly authorized for their special terms. A distributor gets a communication back from the company which gives him the order acknowledgement and order reference number.

The distributors can track the status of the orders placed by them, including the project orders, by giving the order reference number into the system. The stockist can track the status of orders: the quantity dispatched, the date of dispatch, delivery note number, details of the shipping documents and invoice. He can also carry out availability check whereby he can see the quantity available in stock for any particular item. He can view and download statement of accounts containing details of his transactions with the company. This statement helps him to identify the due dates of payment for the invoices so that he can plan his payments to avail of rebates for prompt and early payment.

Distributor accesses information related to product catalogues, price lists and other technical information which enables him to speedily respond to pre sales and post sales queries from his customers. Distributors access their
performance figures so that they can monitor their performance vis-à-vis their targets and avail of monthly / quarterly / annual performance related bonuses.

Learnings

i. Availability of basic infrastructure like a personal computer and internet connection are essential for a distributor to adopt internet. Ease of connecting to website and ease of navigation of the website are the factors which have motivated the distributors to adopt internet. Though the availability of internet in the country has improved over the years, quality and speed of internet connection pose problems sometimes.

Distributors’ access product catalogues and technical information from the websites and this has reduced the dependence on hard copies of brochures.

ii. Online availability of information on order status and stock levels has enabled the distributors to improve order fulfillment to their customers. Online order entry has improved the accuracy of orders and hence supplies. In general, the ability of distributors to service orders and provide prompt information to customers has improved.

Online accessing of information related to dispatches, invoices and statement of accounts has enabled the distributors to ensure timely preparation of invoices on their customers leading to compression of order to cash cycles. Online tracking of stock status and order status has enabled the distributors to improve their planning of their inventory levels.

iii. While orders entry for standard orders is simple, distributors cannot enter the project orders online.

Distributors can also access information by sending a query to Customer Interactive Centre (CIC). They can also send their orders to CIC through email. While these transactions are not online, some distributors have found this mode of communication as adequate in meeting their needs.
Actions

The company should explore the possibility of changes in the ERP software for online entry of project orders.

Performance

The above actions would improve the level of adoption of internet by the distributors and consequently operational effectiveness of the channel would be further enhanced.

Case 2: Siemens Limited

Siemens Limited is a German multinational company operating in India for over 50 years. It is in the business segments of energy, industry, healthcare and consumer products. It was amongst the earliest to enter the Indian LV switchgear industry and has been a leading player in this field with a reputation of high product quality. Siemens offers a wide range of LV switchgear products to provide its customers complete solution from a single source. The company has two manufacturing locations at Mumbai and Aurangabad.

The company had identified High Delivery Capability as the critical success factor for their business. ‘Delivery time in days’ was defined as measure of delivery capability.

It implemented ERP package SAP in 1996 which helped it to integrate the logistics processes within the company. It rationalized the warehousing structure by creating a centralized warehouse at their Mumbai factory and closing down all other warehouses. These initiatives improved the order fill rate, reduced order to dispatch turnaround times and inventory levels. The company’s website offered detailed product catalogues and technical information which could be accessed by customers and distributors. It created Automation and Distribution Mall (A&D Mall) which facilitated online order entry, order tracking and accessing information by the distributors.
Situation

i. High Delivery Capability has been identified as the critical success factor for its business. The components of High Deliver Capability are order fill rate, order to dispatch turnaround time and effective logistics.

ii. Its distribution network consists of 375 distributors spread across the country. Over 90% of its sales are carried out through distributors. The company intends to introduce A&D Mall for their distributors in a gradual manner. Only top 20 percent of their distributors have been allowed the access to A&D Mall. Hence the bulk of the distributors continue to use the legacy system for order entry and accessing information.

iii. The switchgear products are sold based on their technical features and relationship with the customers. Hence distributor’s closeness to customers plays a crucial role in promoting the sale of the company’s products. So, the company has not found the need for employing eCommerce applications.

The company has introduced A&D Mall for their distributors which allows them to carry out online order entry for standard orders and also track information regarding order status, statement of accounts and inventory. Distributors can also access and download product information from website.

iv. The main objective of introducing A&D Mall is to improve the capability of the distributors in managing their working capital and providing faster information to customers.

Actors

i. Top Management, sales force and distributors.

ii. The distributors are depending upon email communication with the company for order placement and seeking logistics related information. This involves delay of a few days in getting information from the company. Distributors would like access the company’s ERP for online order entry and tracking information like it is being done by their major competitors.
Top management is cautious in introducing A&D Mall and the access is restricted only to a selected number of distributors. After gaining sufficient experience, management intends to roll it out to the rest of the distribution network.

Process

A distributor gets connected to A&D Mall through internet. A distributor can carry out online order entry for all standard orders and also track information pertaining to logistics and accounts.

For distributors not having access to A&D Mall the company has provided a template for order placement. Distributor sends his orders as per the template through email to the company’s logistics center located at Mumbai. The company sends the order acknowledgement along with the order reference number within 4 days through email. The company sends another communication to the distributor within 7 days indicating the expected date of dispatch of materials against the order. Subsequently distributor can seek information about the status of dispatch of his order by sending an email query to the logistics centre and he would receive an email reply from the company after a few days. The same process is followed by the distributors for their project orders. Distributors can also seek information about inventory through email query.

Distributors access the company’s website for viewing and downloading product and technical information as and when they desired.

Learnings

i. Distributors who have been using A&D Mall are not satisfied with the accuracy of the inventory information available. They also cannot enter the project orders into the A&D mall.

ii. Online order placement through A&D mall has reduced order processing time by an average of 5 days. Online tracking of order status has improved the order fulfillment and ATP by distributors. Online access to logistics and
has adopted the same strategy in India too. Consequently, the group has faced challenges of harmonizing processes across its heterogeneous legacy organizations and optimizing operational costs.

The company had developed a standalone order management package called ‘eDistributor’ in the year 2002. This package allows distributors to place orders and track order status, statement of accounts and the inventory. Though the company implemented ERP package SAP in 2003, the ‘eDistributor’ was not linked to it.

All the ERPs of the company across the world were harmonized in 2008. As a part of this initiative the ‘eDistributor’ package has been linked to the company’s ERP. This allows online order entry and order tracking by the distributor. All the distributors of the company have been given access to the ‘eDistributor’ package. The distributor has a choice of either sending the order to the company’s logistics centre through email or entering the orders online in the ‘eDistributor’ package.

Company has also set-up a Customer Support Centre which can be accessed by the distributors and the customers for their queries related to logistics, prices and technical information. The company’s website also can be accessed by customers and distributors for product and technical information.

Situation

i. Availability of the products, credit worthiness of the distributor and keeping delivery commitment are the critical success factors.

ii. Over 95% of its sales are done through the distribution network consisting of 250 distributors. The products are manufactured at their seven manufacturing plants and are stocked and distributed through their six distribution centers.

iii. The company’s strategy is to sell the products as solutions to the customers’ problems. Hence, product knowledge and close relationship with the customers play a vital role in selling of these products. Hence e-commerce and internet channels are not used by the company.
Internet adoption by company for distributors has been limited to giving access to website and eDistributor package.

iv. The objective of adoption of internet is to enable faster information flow to the distributor, enable them to promptly execute customers’ orders and also manage their inventory efficiently.

Actors:

i. Top Management, sales force, distributors.

ii. Meeting the delivery commitments to customers is the major challenge faced by the company and they expect adoption of internet to address this issue.

Process

When the distributors enter the order into the ‘eDistributor’ package, he immediately receives an order acknowledgement from the system. Subsequently the distributor can track the order status till the dispatch and invoicing of the materials. The distributors who do not want to use ‘eDistributor’ send their orders in a standard template to the company through email. The order is entered into the system by the company’s personnel at their logistics centre. An email giving the order acknowledgement and the order reference number is sent to the distributor, who can track the further status of the orders through ‘eDistributor’.

There is no provision for online order entry of project orders. The distributor can also access the company’s website for viewing and downloading product catalogues. The distributors can also contact Customer Care Centre (call centre) for seeking any information about their orders, logistics and products. The company encourages the distributors to launch their own websites.

Learnings

i. Ease of use of ‘eDistributor’ package has encouraged a large number of distributors to adopt internet. However, lack of competent staff that is trained in the use of ‘eDistributor’ has limited its adoption.
ii. Online tracking of order status has enabled the distributors to improve their order execution and ATP to customers. Reduction in follow-up time with the manufacturer has enabled the distributor to improve his customer face time. Online availability of information has enabled the distributors to track and control his funds flow. Distributors are able to monitor their performance by tracking their actual performance against their targets and earn performance bonuses.

iii. Lack of awareness amongst all the distributors regarding the benefits of adoption of internet.

**Actions**

The company needs to conduct training program for the distributors personnel for the adoption of ‘eDistributor’ package.

**Performance**

The above action will improve the adoption of internet by the distributors.

**3.1.2.2 Distributors:**

The researcher also included three distributors, one representing each of the above manufacturers, in the case study. The distributor is the interface between the manufacturer and the customer and hence the views of the distributors are helpful in understanding the perspective of manufacturers regarding adoption of internet. The list of the interviewees and the questionnaire are given in Annexure-A (Exhibits 4 & 5).

The simplified SAP–LAP framework of questions for distributors is given in Fig 3.2.
Fig 3.2: SAP – LAP framework of Questionnaire for Distributors

Source: Developed for this research

Case 1: Guru & Company, Bangalore (Distributor for Larsen & Toubro)

Guru & Company was established in year 1982 and has been in the business of LV switchgear, motors, pump sets, lighting accessories, pipes and cables. They have been the distributors for Larsen & Toubro switchgear for over 15 years. Out of the company’s total sales volume of Rs. 360 millions, switchgear accounts for around Rs. 120 millions. The customer segments served by them are agriculture, end users, contractors and OEMs.

The proprietor of the company has a progressive outlook and is technology savvy. He personally works hands on in using IT solutions and internet for transactions with customers and suppliers.

Situation

i. Ability to supply the products required by the customer within a reasonable time and controlling the inventory and receivables are the critical success factors.
ii. Expectations:

Availability of timely and accurate information regarding status of orders, inventory and statement of accounts from the manufacturer. Convenience of accessing information without depending upon the company’s officials.

Actors

i. Customers expect the distributor to deliver the products as per the commitment and their occasional requirements at short notice. They expect timely information about status of their orders and prompt response to their queries regarding availability, products and dispatches.

ii. Manufacturer prefers the distributors to access the required information directly through their website/ERP.

Process

The distributor accesses company’s website for online order entry of standard orders and tracking status of orders, the stock availability and access statement of accounts. Project orders are sent in a standard template on email to the company. Since bulk of his orders are project orders, it is rather inconvenient for him to send orders on email and consequently follow-up regarding their status.

Distributor accesses the website for product and technical information.

Learnings

i. Ease of connecting to website, speed of internet and ease of use of website have facilitated adopting of internet by the distributor. The proprietor’s competency in IT usage has also contributed to the adoption of email and use of the website for order entry as well as tracking information.

ii. Online access of information from website at their convenience has reduced their dependence on the company. Availability of timely and accurate
information has enabled the distributors to make realistic delivery commitments to their customers.

On line availability of statement of account enable the distributor to plan the payments to the company by the due dates to avail of the cash and early payment incentives.

On line availability of dispatch and invoice details has enabled the distributor to expedite invoicing of the project orders on his customers, which has helped him to receive payments in time.

iii. Since bulk of his orders are project orders, it is rather inconvenient for him to send these orders on email and consequently follow-up regarding their status.

Action

The manufacturer should explore the possibility of on line entry of project orders by the distributors.

Performance

Actions taken as above will improve utilization of internet by the distributors.

Case 2: K. Dhandapani & Company, Bangalore (Distributor for Siemens)

The company has been in operation since 1949. They have been in the business of LV switchgear, motors and cables. They have been the distributors of LV switchgear products of Siemens for over 40 years. The total sales turnover of the company is Rs. 150 millions, out of which Siemens business accounts for Rs.50 millions. The customer segments served by them are contractors, end users and OEMs.

Situation

i. Capability to execute customers’ orders as per the commitments made, managing the inventory and effective collection of receivables are the critical success factors.
ii. Distributor expects the adoption of internet to enable him to get timely and accurate information about the status of his orders and dispatches from the company.

**Actors**

i. Customers expect the distributors to improve availability of company’s products so that these are supplied at short notice. Customers also expect immediate response from distributors for information regarding the company’s products and availability.

ii. The company is cautious in extending A&D mall to the distributors. This package has been given only to select number of distributors. Company intends to roll out A&D Mall to all the distributors in a gradual manner.

**Process**

The distributor has been given the access to A&D Mall and he uses the same for entry of standard orders and tracking of information for all his orders. For project orders he sends orders in a standard template to the company through email.

**Learnings**

i. Ease of internet connectivity and navigation of the website have encouraged the distributor to use email, website and A&D Mall.

Downloading of product information from the website is slow.

ii. Availability of information from A&D Mall has been helpful in planning his supplies to his customers. This has also saved distributor’s follow-up time with the company for the information.

iii. Only a small proportion of distributor’s requirements constitute standard orders and hence use of A&D Mall hasn’t benefitted the distributor significantly.
Action

The manufacturer should explore the possibility of entry of project orders through A&D Mall and also find solution for faster downloading of catalogues.

Performance

The above action would address the problems faced by the distributors and enhance the adoption level of internet by the distribution channel.

Case 3: Pooja Power Products, Bangalore (Distributor for Schneider Electric)

The company was incorporated about 20 years ago and been dealing in switchgear and electric motors. They have been distributors for Schneider for over 10 years. The total turnover of the company is Rs. 200 millions out of which Schneider products account for Rs. 150 millions.

Situation

i. Prompt response to customers' needs of information about availability, relationship building with customers and ability to meet customers' requirements are the critical success factors.

ii. Distributor expects complete information about his orders, availability, dispatches, documents and accounts to be available from the company readily to enable him to offer satisfactory service to customers.

Internet should also enable the distributor to manage his inventory, payables and receivables better.

Internet should enable the distributor to increase his customer coverage by eliminating unnecessary follow-up work with the manufacturers.
**Actors**

i. Customers expect the distributors to supply the products at short notice. They also expect distributors to commit delivery dates and adhere to them. Customers expect high order fill rate.

ii. Manufacturer has created 'eDistributor' page which can be accessed by the distributor for tracking information regarding his orders, dispatches and accounts. Manufacturer has also created website which offer product catalogues and brochures for viewing and downloading.

**Process**

The distributor accesses 'eDistributor' page through internet and enters orders online and immediately receives order acknowledgement from the system. He tracks status of his orders, dispatches, invoices and accounts on 'eDistributor'. He accesses the product catalogues and technical details from the company's website.

**Learnings**

i. Ease of connectivity, simplicity of navigation and availability of latest information have facilitated adoption of internet.

ii. Internet has empowered the distributor to get the information required by him through 'eDistributor' package. This has reduced his dependency on the company's sales force and also enabled him to promptly respond to his customers.

iii. There is no incentive for use of 'eDistributor' package.

**Action**

Company should motivate the distributor to use 'eDistributor' package by giving incentives.
Performance

Above action will improve the adoption of internet by the distributor and address the critical success factors.

3.2 Synthesis of SAP-LAP Analysis

The conceptual framework derived from the synthesis of the case study is summarized below:

Positive effect of adoption of ERP by manufacturers

1. Shorter order to dispatch times
2. Improved Order fill rate
3. Reduced transportation time
4. Reduction in inventory

Distributors’ access to company’s website / ERP thro’ internet

1. Online order entry
2. Order status tracking
3. Access statement of accounts
4. Access performance figures
5. Access product / technical information
6. Access information on stocks

Positive effect of adoption of internet by distributors

1. Improved order fulfillment to customers
2. Improved availability of promise (ATP) to customers
3. Improved control on inventory
4. Improved management of payables
5. Improved monitoring of performance
6. Faster information to customers
7. 24x7 access to information
8. Reduced dependence on manufacturers
9. Improved productivity
10. Improved relationship with manufacturer

Fig 3.3: Synthesis of the Case Study

Source: Developed for this research

The three manufacturers under the case study have introduced and sustained adoption of internet for managing their distribution channels over a period of time. So these companies have deep insight and learning of the perceived and actual benefits of adoption of internet. The three distributors selected reinforce and supplement the understanding of the process of adoption of internet by the distributors. The critical success factors for low voltage switchgear distribution are availability of products and
management of working capital. All three manufacturers have adopted Enterprise Resource Planning (ERP) which has positively impacted the critical success factors.

The nature of the switchgear product characteristics which require strong relationship based selling precluded use of e-commerce models and highlighted the need to empower the distributors, who are the critical interface between the manufacturer and the customers.

Having realized the benefits of ERP, the manufacturers have felt the need to capture and extend these benefits across distribution channel. So the manufacturers extended the boundaries of ERP by giving access to their distributors through internet. Simultaneously they also created websites for access of the product and technical information by the distributors and the customers. There is a consensus among manufacturers and distributors that adoption of internet by the distributors has positively impacted the following critical operational parameters of the distributors:

- Order execution capability: On time execution of orders, accurate availability to promise and faster information to customers.
- Management of working capital: Exercising control on inventory, payables and receivables in order to maintain them under appropriate levels.
- Responsiveness: Ability to promptly respond to customers and manufacturer to their needs.

Though the benefits of adoption of internet to the distributors were evident, the case study also discovered the factors which influenced the adoption of internet by the distributors.

The responses were bunched into the following categories:

a) Enablers: These are the factors which enable a distributor to start using the internet applications. These are ease of accessing and navigating the manufacturer's website and ERP, ease of downloading product information and IT competency of his staff.
b) Motivators: These are the benefits which encourage continued use of internet by the distributors. These are ease of working with email, faster availability of latest and accurate information, and convenience of accessing information.

c) Order entry benefits: There are the factors responsible for adoption of internet for on line order entry. These benefits are saving of time, higher accuracy and faster order execution as compared to the alternative methods of order entry.

There has been substantial increase in the quantum of project orders and these are yet to be enabled for on line order entry. This has limited the level of utilization of internet for order entry.

3.3 Inferences from SAP LAP

While literature survey gives the theoretical background of constructs used in this research, the SAP-LAP analysis gives empirical evidence of the importance of ‘Adoption of Internet’ on these constructs i.e. Order Execution Capability, Working Capital Management and Responsiveness. SAP-LAP analysis has also provided three more constructs for inclusion i.e. Enablers, Motivators and Order Entry Benefits. Discovering the dominant relationships between ‘Adoption of internet’ and these constructs is the basis of this research and hypotheses have been derived from them.

It has been seen that definitions of key terms vary in the domain of Indian LV switchgear industry. Hence SAP-LAP analysis has helped in defining various constructs which are used in the next stage of research.

a) Adoption of Internet: On the basis of in-depth interviews during the case study, adoption of Internet by distributor has been defined as the extent to which a distributor has used the various applications enabled by his manufacturer: email for communication, access ERP to track real-time order status, information on stocks, statement of accounts, performance details and online order entry. Adoption of internet also includes visiting the manufacturers’ website to access product information.
b) Order Execution Capability: SAP-LAP analysis has brought out that an important effect of adoption of internet is improvement in the order execution capability of the distributor. Order execution capability is demonstrated by the following factors:

- Pre Sales: How quickly and accurately the distributor responds to the presales queries of the customer regarding prices, availability and products.
- Post Sales: Adherence to pre determined time lines for execution of order is the essence of good order servicing.
- ATP: An important measure of order servicing is “Availability to Promise” made by the distributor. Closer the availability to promise, better is the order servicing.

c) Working Capital Management: SAP-LAP analysis has brought out that one of the critical success factors of distribution in switchgear industry is working capital management. Working capital represents the funds invested by an entity in inventory and the receivables. For a distributor, it is the sum of the value of his inventory and receivables from customers less the payables to the manufacturer.

There is a need for the distributor to maintain appropriate inventory levels to meet demand from his customers and also extend them credit to win over their business. He needs to maintain a balance between service level to customers and the cost of his investment. A distributor’s management of working capital addresses the following aspects of his business:

- Management of payments to the manufacturer to maintain good credit rating and availing rebates for prompt and early payments
- Timely preparation and submission of invoices to customers to reduce the dispatch to invoice cycle times.
- Maintaining adequate level of inventory to service his customers
d) Responsiveness: The framework that adoption of internet improves the responsiveness of the channel is empirically proven through SAP-LAP analysis. A distributor’s responsiveness is measured by the following:
- Quality of relationship with his customers and manufacturer
- Reduced dependence on the company for routine information.
- Speed of response to customers
- Monitoring of his business performance

e) Enablers: Open ended questioning through SAP-LAP gave clarity to the facilitating factors for adoption of internet. The primary factors facilitating adoption of internet are those which make the distributors feel that it is simple to use internet. These factors are:
- Speed of internet
- Ease of getting connected to the company’s website and ERP
- Ease of navigation to various pages of the website and ERP
- Fast download of product information from website
- Availability of trained staff in usage of IT and internet.

Given the obvious benefits of internet adoption, actual adoption is much below the extent desired. This anomaly can be understood by the constructs depicting the perceived benefits. These are called Motivators and Order Entry Benefits which are explained below.

f) Motivators: Motivators are the usefulness factors which encourage the distributor to continue to adopt internet. These are given below:
- Ease of use of email and online order entry
- Convenience of information access
- Availability of latest product information
- Fast and accurate tracking of order status, statement of accounts and inventory information.

g) Order Entry Benefits: The manufacturers have enabled on line order entry by the distributors which is expected to speed up the order processing cycle. The use of this facility is dependent upon the perception of distributors about the
benefits as compared to other methods of order entry available to them. The benefits could be: faster entry, higher accuracy, priority status, possibility of entry of all types of orders etc.

3.4 Chapter Summary

SAP-LAP analysis of the three manufacturers of LV switch gear industry has served the purpose of gaining qualitative understanding of the motivation of the manufactures in adoption of internet for enhancing the operational effectiveness of their distribution channels. This understanding was the basis on which the functional description of the constructs and their measured variables has been carried out. Based on the constructs derived from this case study, a conceptual framework of the research will be developed in the next chapter.