

Effective Supplier Management in Automobile Industry in Pakistan

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ABSTRACT

Vendor management is a discipline that enables organizations to control costs, drive service excellence and mitigate risks to gain increased value from their vendors throughout the deal life cycle. The term vendor management is usually used within the context of business operations, but individuals may also need to manage vendors from time to time. The purpose of this paper is to provide an explanation about how the buyer and supplier management can be effective in growing industry of automobile of Pakistan. This paper highlights the PESTAL effect on the Buyer and Supplier relationship. Data collected through structured interview questionnaire (based on external and internal factors). The most significant recommendation for practitioners concerns the need to how managers can design the buyer & supplier relationship strategy so that targets can be achieved. The basic contribution of this paper is that it examines the need to develop buyer & supplier relationship for getting maximum gain for achieving production target and meet the market need.

KEYWORDS Supplier Relations, Automotive Industry, Assembly Plants, Original Equipment Manufacturer.

1. INTRODUCTION

The management of supplier plays the key success role for any organization. In the last 10 years the supplier management issues are rapidly growing in automobile industry in Pakistan. Despite the fact, the auto sector is contributing to the GDP by 17.2% (Pakistan Economic Survey, 2015).

In addition, the growing demand for motorcycles and cars in the local market is growing. These sectors have become more dependent with their respective suppliers and in order to take competitive advantage the manufacturer are applying various effective supplier management tools with their effective supplier.

Reason to choose this topic is to give awareness to all stakeholders for the automobile industry in Pakistan. The Original Equipment Manufacturer (O-E-M) has to procure around 10000 to 12000 parts for the assembling. These parts procured/purchased from middle to large suppliers depending on the capacity of its production. However, the OEM prefers to produce the limited parts/components in house because of technological barriers. This is very important factor or development for the procurement manager to look deeply at the relationship with supplier for producing the costly product.

1.1 Background

This study is influenced by the research conducted in Brazil i.e., Effective Supplier Management in the Brazilian Automotive Industry by Becker & Laligi (2004). They conducted 28 interviews in 19 firms. The research reflected that how supplier management in Brazil has to adjust to the uncertain Brazilian environment and particularities as well as to industry specifics in order to be successful in the long run. They used the variables with the environment into political (P), economical (E), sociocultural (S), technological (T), environmental (E) and legal (L). The research showed that the biggest weaknesses in the Brazilian supplier industry were the financial problems and the technological weaknesses as well as problems related to in/on time delivery. Due to its early state and the high grade of complexity, there could only be qualitative results in this study. The effective supplier management is also being evaluated in the automotive industry in the developed countries like USA, Germany, Japan, UK and some other western countries. However, due to increasing trend of automobile in developing countries like Pakistan and India, there is need to analyze the supplier management factors in automobile sector in Pakistan.

Many studies were conducted on supplier relationship in the developed countries. There is a need to evaluate such type of research in the developing countries. As the automotive industry sector is growing with a rapid peal. German researcher reported that in order to become more competitive, manufacturing sector should adopt more “best practices” from abroad (Lay et al, 1996; Kinkel & Wengel, 1997).

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This research is conducted with the scenario of Pakistan. Being the developing country, this research highlights that how the major factor that affect the assemblers OEM to create problems with their effective supplier in Pakistan.

The significance of the topic is to identify the important factors that affect the relationship of buyer (OEM) and supplier especially with the help of qualitative techniques with respect to Pakistani perspective. Importance of research queries show they are doing the best practice with the supplier in order to achieve the quality products, what are environmental and economic factors that creating obstacles between supplier and OEM. What are the other challenges and issues being faced by auto industry in Pakistan?

1.2 Problem Statement

In the last few years many researches have been conducted in developed countries on effective supplier management in the developed countries. Researchers found that many factors including political, social, technological have caused the effective supplier management. These developed countries get maximum awareness and benefits from explored result for their organizations. As far as the PESTAL environment of the developing country is concerned, researcher found that there is a need to study the effective supplier management in context of Pakistan.

1.3 Research Objective

The main objective of this research is to explore the useful and informative factors that truly affect the effective supplier management with supplier (Vendor) and Buyer (OEMs) in automobile industry in Pakistan.

1.4 Research Question

What are the factors that affect the supplier and buyer management process in term of supply chain management in automobile sector in Pakistan?

1.5 Scope of the Study

The smooth production flow is important for both the supplier and the auto assembler in Pakistan. The various uncertain and external factors will be identified that will be affecting the management process at both ends. These identified factors will surely benefit the auto assembler in Pakistan and by overcoming these factors the auto industry will also get the targeted production schedule. *Furthermore, the operational activities will also be improved in Pakistan. Auto policy makers will also be benefited from this research in Pakistani auto industry.*

1.6 Limitations of Study

The major limitation for this research was the lack of time. 4 OEM'S of Pakistan Automobile Sector have been focused and interviewed from Karachi & Lahore. Law and order situation in the country was also an issue during the data collection period. Another limitation is the lack of finance.

2. LITERATURE REVIEW

Garcı'a (2010) identified that the suppliers change their strategy from single sourcing of product portfolio to multi sourcing with automotive assembly plant. His study shows the importance of multi sourcing for supplies of product and parts being supplied from vendors. The technique used for this research by researcher was qualitative in nature. The sample sized is based in year 7 years of set interviews was carried out with automotive suppliers' plant in Spain. The study reported that there is a need to focus the production capacity of suppliers as well as OEM. The cost saving technique is applicable with multi sourcing of suppliers from various vendors. These cost saving can lead to have the better relations and management of buyer & suppliers relations

Phubhakdi et al. (2009) research reported the factors for technology management and the human resource of the suppliers. The exploratory type research was conducted for this research in Thai domestic part manufacturer companies. They categorized the 295 companies and got respondents from 37 automotive parts manufacturer. They find out in its research that if the supplies improve the product quality can have the better supplier management and relations with their valued customers of auto assemblers in Thailand. Also emphasized that the many of parts manufacturer adopted the advanced machinery and software's including CAM, CAD, CNC operations, QAM techniques, ISO standards for their organization for better involvement in suppliers' management

Govindan (2009) research approached to identify the criteria for rank used for the supplier development. The technique for this research paper was used for Interpretative structural modeling (ISM).He developed the framework on the variable such as competition pressure, certification system, incentives, supplier development programs, supplier commitment, joint action, long term strategy goals and purchasing performance. This approach considered 5 manufacturing organization to conduct the in depth interviews in official department's respondent included in the research work part manager, operation managers, purchasing manager etc. The result depict that manager from manufacturing organization now realized that the major involvement of supply chain management practices enable for

the buyer and suppliers to further reinforce. The level of understanding is also playing the key role for the success of the organizations.

Osada et al. (2009) identified the relevant factors for the supplier management with their human resource as well as their technology. The research technology used was qualitative in nature. They sent the questionnaire and conducted interviews in automobile part manufacturer industry in Thailand. Findings revealed that support of the human resource can play vital role for the organization as well as for the company's customers and suppliers. Findings also suggest that in term of technological management that supplier of raw material from tier 1 (Tier 1 supplier is a manufacturer who provides products directly to a company without dealing with a middleman or other term of technological manufacturers, Tier 2 (Tier 2 Suppliers: Manufacturers that produce components for Tier 1 suppliers. And 3 (Tier 3 Suppliers: Manufacturers that supply raw materials used in the production of components). Have difference in technological implications to their customers. This is referred that the company suppliers must have quality management tools for better supplier management.

Chen (2008) research discussed that how the beneficial the transactional cost benefit of transaction cost while selecting and implementing of purchase strategy was directed by Chen (2008). His research was based on exploratory qualitative technique method. Two famous motor companies in the Taiwan automotive industry were selected as sample find revealed that situation of multiple sourcing in supplying auto parts and the demonstrated that the dimensions in transaction cost are truly important factors to affect the purchasing strategies. In addition, the empirical results shows that the explanatory capabilities of variables are very significant in monopoly power, steering system, electro mechanism, and other parts systems.

Oh & Rhee (2008) identified the relationship management and collaboration in automobile industry. And identified the factors that affect this collaboration. This research was analyzed multiple regression, exploratory, factors analysis and reliability test. Out of 11 identified factors have been identified, and 5 factors were relevant with the supplier relation and collaboration these factors were effective communication, new development, problem solving, proper purchasing and supplier development.

The technological effect is also important for the development of collaboration and management of effective suppliers. Other factors like flexibility, dependability, continuous improvement also increased to affect the management of suppliers.

Johnson et al. (2008) research assessed the risk factor with the suppliers for automotive industry. A multi – criteria scoring is used for analyzing this research. The various automotive manufacturers were interviewed with professional persons including operation manager, technical manager and purchasing manager. Their finding suggested that the supplier framework is important for managing the supplier buyer relationship in automobile industry. These framework is helps in identifying the monitoring system of the supplies of the parts and equipment. And is imperative to manage the supplier efficiency if are not managed efficiency then the risk factor associated with the supplier management will increase They also highlighted that risk factors goes with higher rating if not manage the suppliers efficiently.

Pisharodi (2008) conducted research of price reduction with manufacturer that based on supplier relations. The purpose of his research was to find factors if the manufacturer forces to reduce its price with their supplier and at what level the relationship accrued.

A structural equation modeling approach used for conducting this research. Data was gathered with 946 situations of buying product. 179 suppliers of automotive industry are attached as respondent Findings depict that price reduction pressure was not mutually exclusive with the supplier and it's coexist. Globally the competition is increasing coming a pressure to produce and maintain the supplier management. If the manufacturer does not reduce its cost, they can lose the market share for their product. But the manufacturer can do it alone the suppliers must to involve for this price reducing activity. The result showed that almost 50% of the suppliers were involved in the suppliers' relationship while reducing its cost. Finally the pressure of price and building relation can be harmful for the organization if not managed properly

Becker et al. (2007) examined and identified the certain external factors that affect the effective supplier management in automobile industry in Brazil, they used exploratory qualitative technique they interviewed 28 personnel in their findings recommended that many factors including political, economic, and legal that affect the relationship of buyer and suppliers in Brazil. It is also reported suggest that uncertainty of environment in a country also create obstacles between buyer and supplier.

Samson et al. (2007) explored the impact of supplier management and relationships between the supplier and customers, they considered the Greening i.e., environmental performance with the supply chain in automotive industry. The data analysis technology used were linear regression and MMR technique.

Data was collected from survey in the automobile industry in Australia. The survey was based on first and second tire parts manufacturer who were the suppliers to the automobile industry. Their research concluded that the suppliers were more reliable when the specific investment was applied between both the environmental performances and their customers.

Kurapov (2006) examined the supplier chain management and supplier management practices while introducing the new product. His studies was seen with online survey methodology for performing this research. He highlighted that during development of new product, early involvement of the supplier can play the vital role for the organization Findings reported that correspondence, technology, control, flexibility efficiently and effectively sharing importance forthe organization.

Wynstra *et al.* (2006) studied how effectively the suppliers can be managed and involvement while developing the new product. This research was longitudinal in nature studying only on organization for the four year. The qualitative technique using workshop, events, discussions panels. All gathered data was based on natural basis rather than pre-arranged structural interviews. Their findings suggest that analytical approach of supplier for involving supplier in the supplier management process, a supplier should have technical capable with their resources while involving with their customer.

Wasti *et al.* (2006) researched out the types of relationship among supplier the auto industry in the Turkey. They discussed the different aspect of contextual, managerial, social environment, and other relevant variables. Almost 51 buyers were surveyed in automobile industry and 72 key product suppliers. They used the techniques ANOVA for testing relationship fact findings. Identified that three types of relationship and management programs with the core suppliers which looked up suppliers, market type exchange and strategic partnership.

Important variations were found in contextual (product and supplier characteristics), managerial (information exchange and cooperation), and social variables (mutual understanding, payoff equity, and satisfaction). Turkish buyers found to have strategically segmented core suppliers based on product and supplier characteristics, whereas supplier groups were differentiated on the basis of variables.

Hoegl (2006) conducted research to identify the key issues needed to be considered while involving the supplier / vendors in new product development. His research show that the many companies differentiate between the suppliers with “know how” and the capacity projects. Moreover organizations manage them differently. The exploratory qualitative method used for this research. The interview was conducted for 30, 60 minutes in 4 week period, First phase based on supplier involvement on the organizational level and second phase was based on project level. Interviews were conducted with 11 R &D directors and 12 project managers. He concluded those firms other than the automobile industry and high – tech manufacturing industries are likely to have more intensive supplier involvement. Furthermore, he highlighted that the business / product managers not only need to focus on good understanding of their customer firms' requirements but also of their purchase decision processes.

Holweg (2005) conducted the exploratory research in order to find the ambiguities that exist with supplier responsiveness, His research conducted in automobile industry in the Europe with the 1st type suppliers. This research was based on multi method approach comprised of surveys, in depth interviews, with the production control department. Initially, 6 interviews were conducted and production planning persons of UK major 3 automobile industries. These interviews involved the purchasing. In second phase, detailed workshop was conducted with 5 components suppliers, in the third phase questionnaire were sent to 5 suppliers. Their findings report that supplier’s responsiveness is based totally on operating process of the manufacturing with the suppliers. The suppliers faced the 1st tire suppliers of raw materials based on constraints with the further supplies to its customers.

Hing *et al.* (2005) studied the impact of selection of suppliers and management strategies on manufacturing firm in Malaysia. The multiple regression technique was used this research, the survey questionnaire were sent to 120 organizations the 92 copies were applicable for this research. Findings revealed that the technological factors are important for the manufacturer. Quality is also a better strategic relationship between buyer and suppliers. The volume flexibility, management of inventory, and product flexibility are also imports factors for supplier and buyer relationship strategy.

Hoetker (2005) reported the factors that impact the buyer supplier’s relationship management when another product is launched. The factor analysis technique is used. There were 3 organizations taken as a sample, the structural interviews were carried out with key operating personnel of these organizations. Product manager, purchase managers, middle level managers were focused by this research paper.

Findings reported that the transaction cost of economies, the value of internalization and the interfirm relationship are the important factor for building the strong management of suppliers. Hence choosing a supplier means choosing a value for the product. Organization should involve in trades off activity while analyzing the supplier buyer relationship.

Simpson & Power (2005) investigated the supplier and organizational relationship management. The study was based on with environmental and structural based on customer buyer relationship. Exploratory qualitative technique was used for case study in automotive industry in Australia. Interviewer were conducted the interviews with officials of purchasing dept., production department, and environmental officials. These semi structured interview conducted with operation managers and quality control officials.

This research concluded that the development of supplier task a challenging task for any organization. It has also been noticed that the buying organization should invest and must convince their suppliers to invest in its company resources for better growth with their suppliers.

Rao et al. (2004) examined that an organization can secure the competitive edge and improve its overall performance globalization of supply chain. They test their research validity via using discriminant validity and reliability. The information collected from 196 organizations via online surveys and interviews, etc. They suggested that extreme level of Supply chain management practices can lead organization to better direction its success. This can help organization to get competitive advantages with positive involvement 4 factors such Generation of proper parts / items, Pre Study of SCM, Pilot Study and data analysis in a broad ways.

Rao (2004) he concluded that the research for developing the 5 dimension of supply chain practices for buyer and suppliers relations. (1) Supplier partnership, (2) relationship with customers, (3) information sharing at maximum level, (4) information sharing at quality level (5) rescheduling. All are important for any organization in to enhance the competitive advantage and performance improvement with suppliers. The data was gathered from 196 automotive organizations. The Structural equation model was used to test the study with specified framework. Result indicated that higher level of involvement and practices will lead the competitive advantage and improve the organizational performance for its overall success. This indicate that competitive advantage have a direct and positive impact on organizational performance.

Ribeiro (2004) identified the existing of commitment, cooperation and interdependence for managing the buyer and supplier relationship management. An exploratory research was conducted with via structured interviews 3 major automobile industries in Brazil were focused. He focused on relationship characteristic of the automobile manufacturer with the suppliers. The information was gathered from with 12 key representatives who was responsible in the organization,

The Study reported that, the all the automobile industries have the common desire that the suppliers and buyer relation should be based on continuous development of their suppliers, In fact there should be specified structure and coordination with the suppliers, better and long term.

FRANCO (2003) this research allows and characterized the major concept of management and relationship maintained between the auto assemblers and their respective suppliers in the Spain. He used technical complexity of the parts, human resource, and the location of specifications and the market power of the suppliers as study variable.

The data was collected from 8 car manufacturer located in Spain 47 parts manufacturer was also considered. The total 153 observations were taken.

The core of his findings was that information sharing at maximum level, cost breakdown, quality systems, and inventory are main analytical model based on supplier buyer relationship management.

Zirpoli & Caputo (2002) studied that the nature of relationship between supplier and buyer in the different organizations from different countries. This research was conducted in Italian automobile industry. By using techniques such as archival source for this study and extensive semi structured interviews. 2 major Fiat and 9 its supplier of 1st tier was considered. The result found that the few possibilities exist when the way of doing work of American and Japanese change. However, when the Italian car manufacturer decided to change its features or design in cars. They the complete supply chain. It also suggests that only few suppliers are to be involved in pure supplier management process while developing new product.

SaÁnchez (2001) identified buyer – supplier management in automobile industry in Spain. An exploratory research was conducted, Using sample size of 53 suppliers. Out of 53 suppliers 17 organizations refused to share the response further data and further the 8 more companies found the lack of incomplete information in data. The 28 useful questionnaire were sent to the organizations. Which reported that cooperation with the customers is very important? Suppliers and technological centers need to improve their process of production for better understanding of supplier & buyer management process.

Zsidisin & Ellram (2001) research identified the factor of the alliance of supplier and buyer relationship. An exploratory technique used. More than 10 manufacturers are taken for conducting this research. In depth interview and surveys were conducted. Finally they conclude that the information technology, product price, product quality are the main obstacles for building the relationship with buyer and suppliers. They highlighted the (PSM) purchasing and supply chain management.

Szwejczewski et al. (2001) studied the contrast between the supplier management activities in Germany and in United Kingdom. An Exploratory research was conducted giving importance to German organizations. The sample size included on 110 German and 110 United Kingdom manufacturing plants. Study revealed that German organization are more inclined to reduce their supplier, rather than UK suppliers, German organization are focused more on multiple sourcing than single sourcing.

Lee & Kim (2001) research was based on the effective supplier management processes. They considered the supplier selection and management system (SSMS). For collecting information an exploratory technique and analysis done using the T-test technique. Various Air conditioning manufacturers were conducted with in depth interviews at

their assembly plant. 52 semi structured questionnaire were passed on with the supplier. The findings revealed that SSMS indicates purchasing strategy system, supplier selection system, supplier management system.

Corrêa (1998) explored the present activities of buyer and supplier. He focused on identify the bargaining power of buyer as well as suppliers. The supply network in such study was conducted using 3 sub assembly manufacturer to automotive, 3 organization of their part suppliers and 4 suppliers for providing the raw material and services. The data were using survey and semi structured interviews with professionals. Study concluded that in that recent years the service industry has improved due to privatization of industries in Brazil. Increase in the competition also raw material the suppliers to manage its cost of product in order to reinforce the supplier management.

Purdy (1994) reported that how the effectiveness is perceived by the automotive suppliers during the evaluation process. An exploratory method for was used. He conducted and surveyed 153 organizations in 5 different automobile industries. The companies were chosen based on small to medium sized. 25 respondents were interviewed having the key operating positions. Like manager, executive, chief operating officers etc. He finally concluded result that the manufacturer in North American focus their purchasing strategy with different format rather than one specific format to improve the efficiency. He found that the suppliers are looking good in documented with having any change in its operations activity. Final concluded that having the proper identified system and procedure in workplace area does not important to giving ensure an effective supplier relationship.

Takeishi (1991) study shows the result of a questionnaire survey for the practices found different in the key areas with the US and Japanese automobile industry. The exploratory research method was done with online surveys in the Japan as well as in the Japan. They had taken the more than 5 automobile sectors from each country. Semi structured questionnaire were built and sent online to different organizations. As a result, he concludes that the Japanese organizations are more efficient and effective than US auto manufacturer. Also shown the relationship level with the suppliers of Japanese automaker. They focus on long term relationship rather than short term. American organization focused on single sourcing on product while Japanese are believed on multi sourcing. Finally said that US automakers have some adopted the practices with Japanese automakers.

3. METHODOLOGY

The study was destined to investigate the suppliers' perception of the effective supplier management process. Semi-structured telephonic interviews were conducted. The interviews focused on the relationship characteristics of the automobile manufacturers and their suppliers. The key informants for the study were 4 middle level managers, whose responsibilities in the manufacturers' organizational structures were fundamental to commercial procurement of automobile parts. Such key informants have sufficient knowledge of the phenomenon being studied and are appropriately positioned to shed light on the relationships under consideration. The Research conducted on four major automobile manufacturers operating in Pakistan.

3.1 Research approach:

The research approach was based on qualitative techniques. By using qualitative research, a researcher can identify the individual act, behavior and respective organization involvement and response on relevant problem/topic. The qualitative research method investigates how things being accrued at it and how it has been generated. In general, the qualitative research technique is reliable and flexible rather than quantitative technique because it helps the researcher to interact directly with individual.

3.2 Research purpose:

The purpose of this research is to explore some informative data during the study. The exploratory nature of research helps researchers to get in depth knowledge, primary and secondary information for the issue being researched.

3.3 Research design:

The phenomenology technique is followed as a research design by this research. The /*phenomenology research methods is used to extract or explore the information that are available into the human mind structure. The purpose of phenomenology is to describe rather than explain. However, the Major features of phenomenology are intentional analysis, Epoch and Eidetic reduction.

3.4 Data Source:

Data is collected from the functional as well as middle level managers.

3.5 Target population:

The target population for conducting this study is the automotive industry professionals.

3.6 Sample size:

The sample size of this study is the Four Automotive organizations in the Karachi & Lahore.

- Atlas Honda Limited (Karachi)
- Ghandhara Nissan Limited (Karachi)
- Ghandhara Industries Limited (Karachi)
- Dysin Automobile (Lahore)

3.7 Data collection technique:

The data is collected through Telephonic interviews. It is a technique that is very useful in a situation where you want to ask open ended questions to explore in depth information from the limited number of respondents, who have expertise in the area being researched. This technique is chosen because of convenience. A convenience sample is one of the main types of non-probability sampling methods.

4. DISCUSSION & CONCLUSION

4.1 Discussion

This study has addressed the question about effective and efficient supplier management (as depicted in ANNEXURE-I). In doing so, processes related to both short-term, operational decision-making, execution and long-term, strategic management activities were examined. The analysis of the four cases of supplier involvement showed that the results of supplier-management and associated issues and problems could be best explained by the patterns in the extent to which managed supplier involvement in the short-term and long-term. It was found that the initial statement made for the research was helpful in understanding why certain associations were not effectively managed, yet concluded that the analytical difference between the different management areas did not sufficiently reflect experiential reality.

This study helped to build and nurture further detail in the structure. It was proposed to distinguish between the Strategic Management view and the Operational Management view. The Strategic Management contains processes that represent long-term strategic trend and operational support for project teams adopting supplier involvement. These processes were also put in to build a willing and capable supplier base to meet the current and changing future technology and capability needs.

The success of linking suppliers in product development as a strategy depends on the firm's capability to capture both short-term and long-term benefits. If companies spend most of their time on operational management in development projects, they will fail to use the leverage effect of planning and preparing such involvement through strategic management activities. Long-term collaboration benefits can only be captured if a company can build long-term relationships with key suppliers, where it build learning routines and ensures that the capability sets of both party are still aligned and are still useful for new joint projects.

To obtain such benefits, companies need a set of strategic decision-making processes that help to create this alignment. Having established explicit and extensive strategies, a company obviously needs a set of operational management processes to identify the right partners and the appropriate level of supplier involvement for the various suppliers in a specific project, using the support from the strategic directions and guidelines. The two arenas are distinct yet strongly interrelated, as the interplay between short-term project interests and long-term strategic interests are managed in these arenas

4.2 Conclusion

Vendor management in automobile industries in Pakistan facing challenges internally and externally like commitment & loyalty, lack of qualified staff & communication. The unqualified staff didn't understand the technical nomenclature of items it lead to waste of time. Besides this Vendor didn't use the Enterprises Resource Planning (ERP) system for materials ordering and dispatches. The basic problem occurs between the supplier and buyer relationship. Order is communicated but not correctly transmitted. Due to erroneous understanding wrong parts with wrong quantities is manufactured and delivered to buyer. Due to poor means of communication the information of dispatches were not timely communicated to buyer. Some items misplaced when kept in transit and locating those items is time consuming effort. Buyer schedules the production plan accordingly and confers commitment to their customer but due to incorrect delivery or missing of critical parts whole production schedule distressed. This will create hectic situation for assembler because the cost of product increase due to idling of manpower and resources. Untrained staff didn't mark the priority to urgency and often sold manufactured parts to other local automobile assembler. Vendors are not capable to produce any uncertain demand against assembler if any urgent demand arises the vendor withdraw because of their production capabilities. It is fact that increasing the manufacturing capabilities, organizations to invest the handsome capital.

Most of vendors are not using Enterprise Resource Planning(ERP) system, they are using manual paper work which demands proper reconciliation of the record at both end but the information is not reconciled properly and vendors hesitate to supply if the accounts are not settled. If the vendor has the proper ERP, professional staff and good communications the delay time can be reduced and correct deliveries of parts can be possible on time. Vendor and buyer commitment will be fulfilled and ultimate production targets can be achieved. Effective vendor management process will result in fulfilling the market demand and further documentation will be made easy (like processing of bills, payments and reconciliations).

Political instability also play its role in affecting the vendor management. The vendor remain hesitant to do business and didn't invest freely in business. Due to political instability the transportation of materials get delayed because of strike on roads.

Pakistan is facing problem because of huge short fall of electricity. This shortfall restrain manufacturer to get affected in terms of order completion. They cannot produce what they have targeted and unable to fulfill their commitment with assemblers. Alternately they have to produce their own power generation which is much costly, eventually they have to increase price of products. Globally the fuel prices are not stable and affect the country. Because of the fluctuations in fuel prices, it affect the prices of raw materials. Sometimes the proposed cost of a product increased till the final product realization and vendor face the loss. Inflation and fluctuation in dollar price also affect the price of raw materials.

4.3 Recommendations:

4.3.1 Practical Recommendation:

The internal and external factors affect the vendor management process. The manager needs to cope with the factors by employing best possible measure to get maximum output. Arrange on time delivery payments, establish good relation with vendors, establish award scheme for good performer vendors. Enable vendors to boost their capabilities use new technology to increase production capabilities to meet increasing market demand.

4.3.2 Future Research Avenues:

The following research avenues can be taped by the research students and academicians.

1. Since this study focused four organizations, there is still a room to conduct the study in the same industry with increased number of representation of organizations in order to generalize the findings of the research.
2. This study was qualitative in nature, so there is a need to do a quantitative research in the same industry with the same study base and prevailing need of the vendor management systems.
3. A comparative study can also be conducted to investigate the general trend of industries in any country using the same study setting.

REFERENCES

- Aláez-Aller, R., & Carlos Longás-García, J. (2010). Dynamic supplier management in the automotive industry. *International Journal of Operations & Production Management*, 30(3), 312-335.
- Barneto, M., & Franco, J. F. (2004). Determining factors of the intensity of assembler-supplier relationships in the automobile industry. *Management Research: Journal of the Iberoamerican Academy of Management*, 2(1), 65-79.
- Becker, A., Laligi, H., & Thiel, C. (2004). Effective supplier management in the Brazilian automotive industry *Lateinamerika-Management* (pp. 279-313): Springer.
- Blackhurst, J. V., Scheibe, K. P., & Johnson, D. J. (2008). Supplier risk assessment and monitoring for the automotive industry. *International Journal of Physical Distribution & Logistics Management*, 38(2), 143-165.
- Bongsebandhu-phubhakdi, C.-o., Saiki, T., & Osada, H. (2009). Management of technology in Thai automotive parts companies. *Journal of Advances in Management Research*, 6(2), 128-143.
- Cudney, E., & Elrod, C. (2011). A comparative analysis of integrating lean concepts into supply chain management in manufacturing and service industries. *International Journal of Lean Six Sigma*, 2(1), 5-22.
- Cusumano, M. A., & Takeishi, A. (1991). Supplier relations and management: a survey of Japanese, Japanese-transplant, and US auto plants. *Strategic Management Journal*, 12(8), 563.
- de Hildebrand e Grisi, C. C., & Helena Puga Ribeiro, Á. (2004). Supplier-manufacturer relationships In the Brazilian auto industry: an exploration of distinctive elements. *Journal of Business & Industrial Marketing*, 19(6), 415-420.
- Govindan, K., Kannan, D., & Noor ulHaq, A. (2010). Analyzing supplier development criteria for an automobile industry. *Industrial Management & Data Systems*, 110(1), 43-62.

- Henke Jr, J. W., Parameswaran, R., & Mohan Pisharodi, R. (2008). Manufacturer price reduction pressure and supplier relations. *Journal of Business & Industrial Marketing*, 23(5), 287-300.
- Hoetker, G. (2005). How much you know versus how well I know you: selecting a supplier for a technically innovative component. *Strategic Management Journal*, 26(1), 75-96.
- Holweg, M. (2005). An investigation into supplier responsiveness: Empirical evidence from the automotive Industry. *The International Journal of Logistics Management*, 16(1), 96-119.
- Kurapov, H. A. (2006). Analysis of supplier involvement in new product development and launch. Massachusetts Institute of Technology. *Journal of International Technology*, 1 – 95.
- Lee, E.-K., Ha, S., & Kim, S.-K. (2001). Supplier selection and management system considering relationships in supply chain management. *Engineering Management, IEEE Transactions on*, 48(3), 307-318.
- Li, S., Ragu-Nathan, B., Ragu-Nathan, T., & Rao, S. S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2), 107-124.
- Luiz Corrêa, H., & Gisela Martes de Miranda, N. (1998). Supply network management in the Brazilian automotive industry. *Integrated Manufacturing Systems*, 9(5), 261-271.
- Mohanty, R., Yadav, O., & Jain, R. (2007). Implementation of lean manufacturing principles in auto industry. *Vilakshan–XIMB Journal of Management*, 1(1), 1-32.
- Nazli Wasti, S., Kamil Kozan, M., & Kuman, A. (2006). Buyer-supplier relationships in the Turkish automotive industry. *International Journal of Operations & Production Management*, 26(9), 947-970.
- Oh, J., & Rhee, S.-K. (2008). The influence of supplier capabilities and technology uncertainty on manufacturer-supplier collaboration: a study of the Korean automotive industry. *International Journal of Operations & Production Management*, 28(6), 490-517.
- Oly Ndubisi, N., Jantan, M., Cha Hing, L., & Salleh Ayub, M. (2005). Supplier selection and management strategies and manufacturing flexibility. *Journal of Enterprise Information Management*, 18(3), 330-349.
- Pakistan Economic Survey 2014-2015. Islamabad: Economic Adviser's Wing, Finance Division, Government of Pakistan, Islamabad. Retrieved 10 12, 2015, from http://www.finance.gov.pk/survey/chapters_15/Highlights.pdf
- Pérez, M. P., & Sánchez, A. M. (2001). Supplier relations and flexibility in the Spanish automotive industry. *Supply Chain Management: An International Journal*, 6(1), 29-38.
- Purdy, L., Astad, U., & Safayeni, F. (1994). Perceived effectiveness of the automotive supplier evaluation process. *International Journal of Operations & Production Management*, 14(6), 91-103.
- Simpson, D. F., & Power, D. J. (2005). Use the supply relationship to develop lean and green suppliers. *Supply Chain Management: An International Journal*, 10(1), 60-68.
- Szwejczewski, M., Goffin, K., Lemke, F., Pfeiffer, R., & Lohmüller, B. (2001). Supplier management in German manufacturing companies-An empirical investigation. *International Journal of Physical Distribution & Logistics Management*, 31(5), 354-373.
- Van Echtelt, F. E., Wynstra, F., Van Weele, A. J., & Duysters, G. (2006). Managing Supplier Involvement in New Product Development: A Multiple-Case Study*. *Journal of Product Innovation Management*, 25(2), 180-201.
- Wagner, S. M., & Hoegl, M. (2006). Involving suppliers in product development: Insights from R&D directors and project managers. *Industrial Marketing Management*, 35(8), 936-943.
- Wei, C.-M., & Chen, C.-Y. (2008). An empirical study of purchasing strategy in automotive industry. *Industrial Management & Data Systems*, 108(7), 973-987.
- Zirpoli, F., & Caputo, M. (2002). The nature of buyer-supplier relationships in co-design activities: the Italian auto industry case. *International Journal of Operations & Production Management*, 22(12), 1389-1410.
- Zsidisin, G. A., & Ellram, L. M. (2001). Activities related to purchasing and supply management involvement in supplier alliances. *International Journal of Physical Distribution & Logistics Management*, 31(9), 629-646.

ANNAXURE-I Survey Results

Q1: Internal factors that affect the suppliers and buyer management process in automobile industry in Pakistan

Atlas Honda	Gandhara Nissan Limited	Gandhara Industries Limited	Dysin Automobiles
<ul style="list-style-type: none"> • Supplier / vendor commitment: As you aware the Atlas Honda is the market leader. As a result, we have to get our supplies of parts from our suppliers in a big volume. Resulting our suppliers mis-commitment with our organization • Ability to produce: our effective suppliers unable to produce our complicated parts for development. • Growth in production: Another problem, while we production increase and respectively we set our production Target with our various suppliers. As a result our suppliers / vendors are unable to meet our target production and have to face the many external problem specially electricity issues and law and order situations. However, we have to go for the alternate source that is costly for our organization in terms of tooling cost. • Growth in ability: our suppliers do not growth it their own ability to produce the best possible qualitative parts. And Atlas Honda Limited has the strong quality control department will reject their supplies. • Profit Sharing: our major suppliers' demands to raise it profit margin due to change in overhead cost, material cost, and fixed cost. But Atlas Honda Treated their suppliers / vendors as on rational basis. • Loyalty and sincerity: these are intangible internal factors that are very important for our organization. As you know the various assembler are assembling the Chinese Brand Motorcycles in Pakistan. Mostly the parts are the common with our Japanese Brand. As a result, the few suppliers that are not loyal and sincere with our firms they tend to supply our developed or rejected parts to Chinese assembler. We take strong action against these vendors who transfer our technology to other assembler. We try to discontinue the business with such suppliers and create another alternate source. • Attitude Issues: suppliers / vendors attitude issues are also important for supplier management. 	<ul style="list-style-type: none"> • Relationship / Management affect between buyer and supplier due to lack of technological upgrading like soft ware's, SAP, ERP, MIS, etc. • The assembler aspect their suppliers / vendor to implement ISO standards inside the manufacturing are but supplier reluctant to implement due to cost factor. • Nissan has mostly supplies in Punjab, especially in the remote area resulting have to wait for material from urban area. Respectively delay in supplies to assemblers. • The supplies that have the major components with business threats assembler to raise the material cost. • Ghandhara Nissan effects with their suppliers due to weak financial position of the suppliers. • The Nissan creates problem in investing the tooling, machinery, resulting lose the significant business. • The Nissan creates problem in investing the tooling, machinery, resulting lose the significant business. • Assembler unable to discontinue the suppliers due to heavy investment involve with suppliers / vendor. • Many suppliers have very poor communication with less documentation system. 	<ul style="list-style-type: none"> • Relationship / Management affect between buyer and supplier due to not well equipped infrastructure in the vendor industry. • Not proper engineering tools and equipment. • Not proper educated staff members resulting unable to read proper engineering drawings • Suppliers demands for advance payment while developing or ordering the new part or equipment. • Suppliers show their low efficiency in producing the suppliers when assembler unable to pay the amount of time. (Delay in payments) • Suppliers call for machinery advance • Assembler unable to discontinue the suppliers due to heavy investment involve with suppliers / vendor. 	<ul style="list-style-type: none"> • Supplier are not much confident about the company so they are reluctant to start business with the Dysin Automobile because it newly emerging China Brand Company. • Communication is another factor they are not well equipped with communication like email, fax.

Table 1a – Survey Results

Q2: External factors that affect the suppliers and buyer management process in automobile industry in Pakistan

Atlas Honda	Gandhara Nissan Limited	Gandhara Industries Limited	Dysin Automobiles
<ul style="list-style-type: none"> • Fluctuation in government policy • Fluctuation in exchange rates • Inflation • Drastic increase in fuel price • Ordinary unnecessary leaves 	<ul style="list-style-type: none"> • Law and order situation in the city, as a result high absence in labor / workers • Major Electricity problems, in Punjab province vendor unable to meets the production target. • High in fuel prices, inflation, the vendor threats auto assembler to rise in price. 	<ul style="list-style-type: none"> • Increasing load shedding of electricity creating problem vendor to meet the target • Prevailed Law and order condition in the city, • Changing prices of fuel also affect the cost and performance 	<ul style="list-style-type: none"> • Major Electricity problems, in Punjab province vendor unable to meets the production target. • Uncertain fluctuation in fuel Prices

Table 1b – Survey Results