

# Impact Of 3<sup>rd</sup> Party Logistics In Productivity And Cost Of Manufacturing Industries:

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## **Abstract**

This research study is conducted in Pakistan. It is examining the linkage between third party logistics services providers and the performance of manufacturing sectors of Pakistan. It informs how to enhance the performance by adopting so, in this study, we have collected many problematic aspects, like in Pakistan, mostly manufacturing sectors tends towards cost-oriented, and wanted to gain high profit from minimum cost investment. They also faces lack of expertise in their Noncore business activities (like-third party logistics service providers), Furthermore, in Pakistan, the manufacturing sector has lack of vehicles and technological advancements, which causes extra time for delivering (goods/services), so they have to adopt 3<sup>rd</sup> Party Logistics Services, and avoid the hurdles which they faces for delivering to customers, for the satisfaction and organizations goodwill. In the Pakistani point of view, we have collected information from data and study the factor that influences and impactful for manufacturing sectors and that are cost oriented, productivity, their service improvement, focus on core-business are the major reasons for 3<sup>rd</sup> Party Logistics (Boyson et al., 1998; Fernie, 1999); one of the purpose of this research is, we also find that, researchers, have identified that Third-Party Logistics leads toward the enhancement of business performance and growth globally. From this study, we also take attention of manufacturing sectors that they should focusing on core competencies, should uses third party logistics, for Cost effectiveness, they can also fulfill the demand uncertainty from customers by acquiring Specialized skills from 3<sup>rd</sup> Party Logistics. In this study, we cater the Manufacturing sectors of Pakistan. This is Qualitative research, and we use Induction approach. The data, we collected for conducting this research is primary data, for gathering data we took Questionnaire format (structured) from the concern respondents of relevant Industries, Sampling techniques, we have taken here is Non-probability sampling (Convenience sampling) in which targeted respondents are acquired, for getting accurate results. From this Study, we have considered the manufacturing sectors of Pakistan, which recommended key factors for manufacturing industries for the growth and enhancement of business performance, and how the 3<sup>rd</sup> Party Logistics is become the opportunity for the growth of manufacturing sectors of Pakistan.

**Key words**:  $3^{\overline{RD}}$  Party logistics, Cost, Productivity, Customer satisfaction, Just in time, Business Performance.

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## **INTRODUCTION**

Globally, all manufacturing organizations are taking keen interest and focused on Sourcing/third party logistics. (Aktas, Agaran, Ulengin & Onsel, 2011). As we know that Supply chain Management, is the main element of organizations success, In which Logistics operations involved, Logistics provide high level quality and improve productivity. (Aktas et al. (2011). The main purposes of outsourcing the logistics which are cost reduction, Quality, technology, resource, asset management, Core competencies (as cited in Kot, 2008; Hwang et al., 2016). (Gottfr0065dson et al., 2005; and Narasimhan, 2004). Third Party Logistics gives strengthen to compete as Cost leader, Differentiator, Focused provider (Porter, 1980). The primary purpose of 3rd Party Logistics is reducing Logistics Cost with supply chain efficiency. (Abraham and Taylor (1993). Logistics cost reduction is the most important reason for going towards 3PL. It also requires for "Productivity Improvement", cost reduction, service improvement and focus on corebusiness. (Boyson et al., 1998; Fernie, 1999. Third-party logistics or so called 3PL is the outsourcing of the logistics functions. Third Party Logistics is the combinations of supplier, buyer and logistics service provider in the supply chain (Bask, 2001).

## **PROBLEM STATEMENT:**

As per Pakistani point of view, the manufacturing Organizations initially recognize the need for the third-Party Logistics after that they develop the selection process of third-party logistics service providers (Akbari & Hopkins, 2016; Yang, 2014). In Pakistani, organizations are more cost-oriented (more focused to reduce their costs), another reason for manufacturing sectors usage 3PL is having lack of expertise on their non-core business like logistics activities that's why they want to prefer the 3PL service providers to enhance their core business functions.

3PL service providers requires for distribution goods in Pakistani aspect, because of uncertainties factors and the manufacturers do not have expertise and skills to manage their logistics operations effectively and efficiently. Logistics cost reduction is the most important reason for going towards 3rd party logistics. It also requires for "Productivity Improvement". Another reason of third-party logistics in manufacturing companies, requires more vehicles and warehouses, if they go for Inhouse logistics, they have to wait until the production completes. This process will take lots of extra time to deliver the goods on markets to fulfill demands and economies of scale, they are facing problems in capacity of vehicles for In-house logistics. The issues regarding logistic operations are because of less expertise (Razzaque & Sheng, 1998).

## **RESEARCH OBJECTIVE:**

As per Pakistani perspective, cost reduction, increase productivity, service improvement and focus on core-business are the important reasons for implementing THIRD PARTY LOGISTICS (Boyson et al., 1998; Fernie, 1999); Some researchers, find out that outsourcing Third-Party Logistics leads toward the enhancement of business performance and growth. (Clott, 2004; Embleton and Wright, 1998; Corbett, 1998). For the purpose of focusing on core competencies, companies uses third party logistics, to reduce their costs, or Cost savings, Demand uncertainty to the outside contractor, and received Specialized skills from 3PL. Further, we have found lack of researches in the field of selection criteria for third Party Logistics in Pakistan.

## **KEY RESEARCH QUESTIONS:**



- 1. What is the impact of Third-Party Logistics in Logistics cost reduction?
- 2. What is the impact of Third-Party Logistics in enhancement of business process?
- 3. What is the impact of Third-Party Logistics in Focus on core competencies?
- 4. What is the impact of Third-Party Logistics in productivity improvement?
- 5. What is the impact of Third-Party Logistics in Service Quality?
- 6. What is the impact of Third-Party Logistics in transportation cost?
- 7. Is the length of Experiences matters for the selection of Third-Party Logistics services providers?

## LIMITATIONS:

There are limitations identified while conducting this research, firstly short spell of time to conduct this research, lack of theoretical data and researches in third Party Logistics with Pakistani Dilemma. Additionally, it would be more beneficial to explore more factors for best logistics services providers achievements, the selection criteria for 3PL service providers should be more enhance like technological aspects involved for Pakistani manufacturing sectors.

# SCOPE AND SIGNIFICANCE OF RESEARCH:

As we know that, supply chain management is a key factor for the successful of business performance because it ensures the flow of products, services and information in a smooth flow. Aktas et al. (2011). Third-party logistics or 3PL is the outsourcing of the logistics operations is the collaboration of seller, buyer and logistics service provider in the supply chain (Bask, 2001). 3PL services is not just transportation and warehousing facilities functions but moreover, it is a full fledge package of fleet management(ships), order fulfillment & processing, tracking & tracing, freight payment & auditing, inventory management, logistics information system, freight forwarding and customs documentations (Dapiran, Lieb, Milen & Sohal, 1996) (Leahy, Murphy & Poist, 1995). 3PL also helping in development for manufacturing sector. Outsourcing the 3PL service providers leads manufacturing companies to save their capital and invest it in their Corebusiness operations. Accuracy of follow-up and order receipt are also important because manufacturers continuously keep following-up their orders in terms of their deliveries. Pakistani organizations outsource 3PL because their costs get declining with its usage.

# List Of Variables:

- 1. Third Party Logistics
- 2. Logistics' Cost Reduction
- 3. Enhancement of Business Process
- 4. Focus on Core Competencies
- 5. Productivity Improvement
- 6. Service Quality
- 7. Freight Rates

# 3<sup>rd</sup> Party Logistics:

Third-party logistics was also known by the named as logistics outsourcing (Marasco, 2008). One of the reasons of outsourcing the 3<sup>rd</sup> Party Logistics service providers is to focus on the core activities (Sahay & Mohan, 2006). 3<sup>rd</sup> party logistics services include (warehousing, transportation, freight forwarders, etc.), outsourcing the logistics' activities is decreasing the labor costs, somehow warehousing cost, vehicles and excess inventories (Rajesh, Ganesh, 2013). 3<sup>rd</sup>



party logistics become an important business approach, where competitive advantage may be gained when products or services are produced more effectively and efficiently by outside suppliers. It is an agreement in which one company contracting part of their existing internal activity to another company.

# Performance & Productivity:

Increase in production is called Productivity. For the effective productivity it depends upon the smooth flow of transportation that's also one of the reason of using the 3PL service and to focus on the core functions for the improvement of productivity (Sahay & Mohan, 2006).

# Logistics' Cost Reduction:

Third Party Logistics services are cost saving and capital investment reduction (Embleton and Wright, 1998; Organizations outsource their logistics for the purpose of reduction in their number of warehouses, labor costs, excess inventories and vehicles (Rajesh et al., 2013). Bagchi and Virum (1996) have discussed that Cost, reliability and financial stability are selection criteria for Third-Party Logistics' services providers. Pakistani organizations outsource 3PL because their costs get diminish with its usage.

## **Enhancement of Business Process:**

Business Process Reengineering, focusing on core competencies and increasing of flexibility. {Lau and Zhang (2006) }. business process is also a significant factor for outsourcing third party logistics service providers in Pakistan and it pushes the companies focusing on their core business as supported by the previous studies (Lau & Zhang, 2006).

# Core Competencies:

Competitive priorities in a firm can be related to a firm's core competencies in two ways. First, a firm's competitive priorities may lead to the development of a supporting set of competencies and capabilities (Koufteros et al., 2002). Similarly, a firm may possess core competencies and capabilities that play a role in determining which priorities a firm chooses to focus on (Krajewski and Ritzman,1999). & Sahay et al. (2006) have found that focusing on core competencies, the success of firms using 3rd Party Logistics and reduction of the logistics costs are the most important and significant reasons for the outsourcing of 3PL service providers.

## Service Quality:

Pakistani organizations are more focusing on the quality of third-party services providers, so they can focus on their core business and operational procedures. (Bagchi et al. 1996). service quality is main factor which influence the selection of third-party logistics (Aguezzoul, 2007).

# Freight Rates:

Logistics expertise and it is not only limited to the warehousing and transportation. It also includes the other functions such as fleet management, order fulfillment & processing, tracking & tracing, freight payment & auditing, inventory management, logistics information system, freight forwarding and customs brokerage (Dapiran, Lieb, Milen & Sohal, 1996; Laarhoven et al., 2000; Boyson, Corson, Dresner & Rabinovich, 1999; Sohail & Sohal, 2003). Freight rates" is another factor while choosing any 3<sup>rd</sup> Party Logistics service provider.



## LITERATURE REVIEW:

In this research paper, we would like to take attention in impact of 3<sup>rd</sup> Party Logistics Providers, on manufacture sectors. 3<sup>rd</sup> Party Logistics, is very vast field in which many operations include like warehousing, transportation, distribution channels, etc. (Marasco, 2008). Before the 3<sup>rd</sup> PL services all these services were performed by organizations by in house Methods, (Lieb, 1992). 3<sup>rd</sup> party logistics services providers are very important because the main logistics operations (transportation, warehousing) are performing by them on behalf of suppliers. (Berglund, van Laarhoven, Sharman and Wandel, 1999). We have found out in researches that the 3<sup>rd</sup> PL service providers is the combination of suppliers, purchasers and 3<sup>rd</sup> PL services providers in systematic process of supply chain. (Bask,2001). Further, please note, transportations and warehousing processes are not only operations includes in 3<sup>rd</sup> PL services, but it's a variety of services. We can say that 3<sup>rd</sup> PL acts an external organization which provides logistics functions with their expertise and benefits for manufacturing organizations. 3<sup>rd</sup> Party Logistics is also providing functions like, (Fleet managements, order fulfillment, tracking & tracing, customs clearance, and freight forwarding. (Sohail & Sohal, 2003). Mostly manufacturing organizations outsource their logistics functions to focus on their core competencies. For the selection of 3<sup>rd</sup> PL Services providers, should assess their standards (Selviaridis & Spring, 2007). 3<sup>rd</sup> PL mainly contribution in an organization which impacts on a country's GDP, Gross Domestic Products. (Ian McCarthya,2003). It is also providing ease for manufacturing sector, by let them focus on the customer's need and just-in-time delivery of goods and services to customers. 3<sup>rd</sup> PL services providers serving in a way, through which industries can tackle with competitive strength of 3<sup>rd</sup> PL. In manufacturing industry, most crucial problems of today's world are on time delivery and just-in-time factors which make the products availability to customers, and it is considered a key success element. Further, the main focus of manufacturing industries are how they can reduce their logistics costs and at a same time they want to improve their supply chain efficiency and effectivity. The most important part of manufacturing sector is how to cut down logistics costs, improve customer services, quality focus and focus on core competencies. The main reason for 3<sup>rd</sup> PL is (lacking of In House Logistics Expertise of manufacturing sectors, and lacking of centralized operations for distributions channels. (Yemisi A. Bolumole-North Florida). 3<sup>rd</sup> PL can help manufacturing companies to save their transportation cost, distribution channel cost by giving them services. For the success of organizations, they prefer and uses 3rd Party Logistics services. We can say that one of the key players of manufacturing sector is 3rd party logistics providers. 3<sup>rd</sup> PL has lots of definition. A single definition is not sufficient to define it. The importance of 3<sup>rd</sup> PL has explained by many researchers in their researches as per their perceptions. (Marasco, 2008). Before the services of 3<sup>rd</sup> party logistics providers, all manufacturing performs logistics functions in-housed with lack of expertise. (Lieb, 1992) but when 3<sup>rd</sup> PL entered into the marker then they Logistics services provides as an external company. Marasco (2008), also informed that before 3<sup>rd</sup> party logistics all functions of logistics were performed by companies themselves. 3<sup>rd</sup> PL are performed overall operations of logistics on the behalf of manufacturers/ suppliers and it is also informed that the operations of transportation and warehousing also perform by 3<sup>rd</sup> PL. It is extract from one research that 3<sup>rd</sup> PL is the collaboration of seller, buyer and logistics service provider in the field of supply chain (Bask, 2001). The Most important Functions of 3<sup>rd</sup> PL are transportation and warehousing functions. 3rd PL providers have variety of services (Leahy, Murphy & Poist, 1995). 3<sup>rd</sup> PL acts as an external company that provides logistics operations to the manufacturing



and services sectors. 3<sup>rd</sup> PL are best on the basis of their expertise which allows manufacturing organizations focusing on their core businesses to enhance the productivity and quality of product. 3<sup>rd</sup> PL provides logistics expertise and they are not limited to the warehousing and transportation facilities. The other leading functions performed by 3<sup>rd</sup> PL like, fleet management {It is the management of commercial vehicles like, trucks, vans, special-vehicles, forklifts, and trailers for the use of business processes quickly}, fulfillment of order, trace and track the materials, freight forwarders activities, inventory management activities, 3rd PL implemented advance logistics information system, to manage their work flow. (Sohail & Sohal, 2003). Every manufacturing organizations like the option of outsource their logistics operations for enhancement of business performance. Those manufacturing sectors, who identifies the need of outsourcing or 3<sup>rd</sup> PL services, they prefer that option for the sake of productivity and performance. (Akbari & Hopkins, 2016; Yang, 2014). We have find out lots of data regarding the importance of 3<sup>rd</sup> PL services, one study defines following themes: The cost reduction, services improvement and focus on corebusiness functions are the important reasons for outsourcing the 3<sup>rd</sup> PL (Fernie, 1999; Laarhoven, Berglund and Peters, 2000). We have found in our research, from the past research paper that, according to (Beaumont and Sohal, 2004), 3<sup>rd</sup> PL services does not reduce the cost. This phenomenon is not related with our research paper, because cost is one of our important variables to specify our research paper. We have searched in one of base research paper that, due to the expertise of 3<sup>rd</sup> PL providers, manufacturing organizations implemented them in their business processes. And due to the lack of logistics performances, most of the manufacturing sectors have selected their best suitable 3rd PL services providers. They also think that 3rd PL providers are the strong point to boost the profit by reducing Logistic cost. Cost savings and capital investment reduction are showing the significance of adopting 3<sup>rd</sup> PL services. (Llopis, 2002). According to some researchers, outsourcing Third-Party Logistics leads toward the enhancement of business performance and processes (Clott, 2004). From the research of (Zau and Zhang, 2006) we have found that the obstacles before outsourcing practices in China, after that they have found that Chinese organizations uses 3<sup>rd</sup> PL services for the purpose of markup and gain in their Business Process and BPR. By the help of 3<sup>rd</sup> PL services, manufacturing companies more focusing on core competencies and found them that they can increases flexibility of work. With the help of some researches, we collected data about some manufacturing organizations outsource their logistics for the purpose of reduction in their warehouses, because they can get the warehousing activities from 3<sup>rd</sup> PL providers, which ultimately leads to decrease warehousing cost and their management cost. Labor costs in warehouses also reduces, excess inventories and vehicles cost can be minimized by the help of 3<sup>rd</sup> PL services. (Rajesh et al,2013). We have found some other restrictions of manufacturing sectors that limitations of the resources to invest on the logistics activities to perform better and accurately so they prefer 3<sup>rd</sup> PL services. From one study, we gathered the information of which defines that manufacturing sectors have five main categories for the purpose of acquiring 3<sup>rd</sup> PL services which are as follows: 1) financial reasons, 2) technological reasons, 3) resources insufficiency 4) and better asset management, 5) management skills and personal (Hwang et al., 2016). One of the factors for applying 3<sup>rd</sup> Party Logistics services is technological factors, because in today's world, technology is rapidly changing, and requires huge investment for implementation. Manufacturing organizations avoid investing in them because of constantly changing nature of technology. That is why they outsource their logistics activities through 3<sup>rd</sup> PL service providers, because this process requires high level involvement of technology in operations. For the success of the organizations and for the focus on core competencies,



manufacturing sectors using 3rd Party Logistics. 3rd PL service providers are selected by the way that they influence by their innovations, best service quality, cost effective, reliability and financial stability, these are some of the criteria for selecting them. The service quality of 3<sup>rd</sup> PL service providers leads to performances enhancement of manufacturing companies (Selviaridis and Spring, 2007). Form the studies of (Banomyong and Supatn (2005) in which they have identified and classified following items for 3<sup>rd</sup> PL, and they recognizes them through reviewing the literatures and they fitted them as important factors which are as follows: Trustability, Guarantee, Approachable, Awareness Of Processes, Cost And Physical Benefits For The Selection Of 3<sup>rd</sup> PL Services Provider. They also enhance the importance of 3<sup>rd</sup> PL according to their analysis of studies, 3<sup>rd</sup> PL also offering up-to-date freight rates to market and accurate documentations done by them, these are the most important and significant factors for 3<sup>rd</sup> PL service providers. In the same manner of Logistics activities, manufacturing organizations prefer their services for the ease of collaboration with their customers, collaboration with distributors, for organizations financial opportunities, for their honesty and for quality of operations management, accuracy of order receipt of organizations and follow-up of organizations are the important factors for satisfactions of customers of manufacturing sectors processes, on the same time it leads to success factors and better performances. Most of the manufacturing companies believes that with the help of 3<sup>rd</sup> PL services, they can gain financial opportunities, so 3<sup>rd</sup> PL services are the key element for making financial position stronger. Some of the manufacturers believes that the area(length) coverage of 3<sup>rd</sup> PL providers and their experiences in their fields are important factors for applying their services in manufacturing companies, because with the help of these factors, they can support and enhance the productivity of manufacturers. In the most recent research, it has been concluded that cost and quality of goods and services are the crucial factors for selecting a 3<sup>rd</sup> PL services, because they can best support on it. (research incurred in Taiwan's integrated circuit manufacturing sector (Hwang et al., 2016). 3<sup>rd</sup> PL services is important with another factor that is they can load and delivers the goods to the point of destination from their own vehicles or contractual basis, so by this the vehicle maintenance costs, fuel cost could minimize with the effectively process done. The other important thing is they also provides warehousing facilities, so the manufacturers who have limited space of keeping their products, so they use 3<sup>rd</sup> PL services, and focus on the productivity without hesitation of limited spaces. In one research paper we have found that researcher explained, there is no relation between productivity improvement by using services of 3<sup>rd</sup> PL, (which is denying the study of Piplani et al. (2004). In Pakistani perspective, we can say that manufacturing organizations mainly focus on the quality of products & services by using 3<sup>rd</sup> PL because they have lack of Logistics expertise in inhouse. Most of the organizations uses 3rd PL because of focused on their core business activities and operations. Manufacturers uses 3<sup>rd</sup> PL services to extend their businesses locally as well as internationally, worldwide. To cover the overall demand with profit maximizations. Because the Manufacturing companies themselves have limited approaches on geographical coverages or limitation distribution of channels so that's why they selected 3<sup>rd</sup> PL to achieved them. Similarly, in one study, we found that those manufacturing organizations have less experience dealing with their logistics operations so they prefer 3<sup>rd</sup> PL service providers are more competent dealing with the transportation and logistics due to their core competencies in that field. Another important phenomenon of 3<sup>rd</sup> PL services quality is found that is the accuracy of order-receipt and their follow-up from 3<sup>rd</sup> PL in Pakistani aspect, Organizations prefer them because, they want to have a strong follow-up from 3<sup>rd</sup> Party Logistics providers in order to eliminate the uncertainty factor. In this study, We have found that



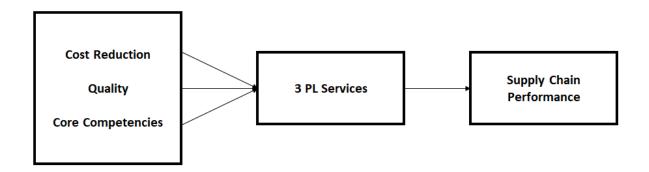
3<sup>rd</sup> PL providers has strong follow-up for their services in order to eliminate the uncertainty factor in form of demands and customers satisfaction. As per Pakistani perspective manufacturing sectors more focus on those 3<sup>rd</sup> PL services providers, whose quality are best and they do not comprise over their standards, and they have focused on their core manufacturing activities by hiring them as 3<sup>rd</sup> PL. In Pakistan, the manufacturing sectors have not fully geographical coverage and command over it, so they prefer that they should opt 3<sup>rd</sup> PL services, Some manufacturing companies have limited or lack of expertise in the field of logistics operations and 3<sup>rd</sup> PL are more competent in dealing with the transportation and logistics due to their core competencies in these fields, Manufacturing companies are blindly believe in the services of 3<sup>rd</sup> PL, for the accuracy of order receipt, their customer's satisfactions, good reputations of organizations, In Pakistani perspective, most of the manufacturing companies has strongly prefer 3<sup>rd</sup> PL services because to avoid any kind of uncertainties such as pilferages, damages or loss in future, 3<sup>rd</sup> PL also provides documentations with more accurately in Logistics Matters. The Cost oriented Manufacturing companies, are mainly focused on cost reduction, and they want to connect with these 3<sup>rd</sup> PL service providers, who benefits for COST side. The reasons of hiring 3<sup>Rd</sup> PL services are that They have well equipped warehouses and automated vehicles as per current technology, so manufacturing organizations can reduce their cost by the help of 3<sup>rd</sup> PL. Those manufacturing sectors who have not good commands over their logistics, so they acquires 3<sup>rd</sup> PL, to achieve their financial goals, The 3<sup>rd</sup> PL agents, who have more effectively and efficiently working and more customers oriented are appreciates by Manufacturing organizations. Because in every manufacturing sides, supply chain operations is one of the integral element for gaining profit maximizations, so organizations refers quality focused 3rd PL providers. Most of the manufacturing companies acquires the services of 3<sup>rd</sup> PL services providers to gain numerous benefits, like Quality improvement, cost reduction in making goods/products, to avail best distributions networks and smooth running of logistics operations, lead time improvements, some authors believe that the mechanism for cost reduction is 3<sup>rd</sup> PL service providers. With the help of 3<sup>rd</sup> PL services, manufacturing company can Increase their volume of products. In short, we can say that 3<sup>rd</sup> PL services providers help out in cut down logistics costs, improve customer services, and focus on core competencies for Manufacturing organizations. 3<sup>rd</sup> PL is giving competitive advantages to all those manufacturing sectors who avail their services 3<sup>rd</sup> PL services includes effectively and efficiently doing logistics activities on behalf of suppliers. For acquiring such services of 3<sup>rd</sup> PL, manufacturing organizations have to signed on agreements with 3<sup>rd</sup> PL, the main reasons for 3<sup>rd</sup> PL services are (i) wages savings and benefits on payments, (ii) Demand uncertainty transfers to the outside 3<sup>rd</sup> PL services providers, (iii) achievement of specialized skills and operations that nit exist in the organization. With the help of 3<sup>rd</sup> PL services, Manufacturing organizations allows economies of scale, acquires skills of them, focus on largest areas to satisfy maximum customers, improvement in quality, increase developments in new areas, They can reduce the transportation cost also, , 3<sup>rd</sup> PL has an competitive advantage that their when customers outsource, globalize, reduce lead times. Some logistics firms have own air transports (own airplanes), own vessels / fleets, etc., to provides their services.



## PROPOSED RESEARCH MODEL:

# **Independent Variables**

# **Dependent Variables**



Khan .H, Hussainy. K, Khan. A, Khan. K (2017), Drivers of Outsourcing and Selection Criteria of 3rd Party Logistics Service Providers. *OPERATIONS AND SUPPLY CHAIN MANAGEMENT* 10(4), 240 – 249,

## **HYPOTHESIS:**

H<sub>1</sub>: There is a significant impact of 3rd party logistics in cost reduction for business performance.

**H<sub>2</sub>:** There is a significant impact of 3rd party logistics in productivity improvement business performance.

H<sub>3</sub>: There is a significant impact of 3rd party logistics in core competencies for business performance.

**H**<sub>4</sub>: There is a significant impact of 3rd party logistics in quality for business performance.

## **METHODOLOGY**

In this research paper, we use survey method, with basic research design, It's a qualitative research technique, we use very supportive tools, model, hypothesis, and supportive explanation with the guidance of many past research papers /articles, the benefit of our research is highlighted the positive aspects of 3<sup>rd</sup> Part logistics in the manufacturing sectors performance and focus on it, we also justify the Hypothesis which we developed over here in report. Primary data, we have obtained from Questionnaire, which were filled by associated persons in the manufacturing sectors. They are the sample of our population. We have tested our research with the help of mean, standard deviation, two tailed test and Z-Test for hypothesis, these Statistical tools were used, from which we have reached some concrete conclusion. We have designed the sample by approximately 80 questionnaires associated with 3<sup>rd</sup> Party Logistics impact on manufacturing industries and were selected. We take primary data by the help Questionnaires for gathering data, and these help out for analyzing the results. We have calculated, Z-test of mean, PH Stat Software, spread sheet for processing and analyzing of data.

## **RESULTS**:

4.1) Demographics of the respondents: (N=93)



DEMOGRAPHICS	N	PERCENT	
GENDER			
MALE	76	81.7%	
FEMALE	17	18.3%	
MARITAL STATUS			
Single		60%	
Married		40%	
AGE			
21-30		54.8%	
31-40		35.5%	
41-50		9.7%	
51-60		1.1%	

QUALIFICAT <u>I</u> ON	
Matric	4.3%
Intermediate	6.5%
Graduation	35.5%
Masters	58.1 %
WORKING EXPERIENCE	
< 1 year	5.4%
2-5 years	37.6%
6-10 years	28%
11-15 years	16.1%
>15 year	15.1

# **DATA ANALYSIS**:

# TABLE 1:

# **H 1: COST RELATED TO ORGANIZATIONAL PERFORMANCE:**

Data	
Null Hypothesis □=	3
Level of significance	0.05
Population Standard Deviation	0.69
Sample Size	79
Sample Mean	3.88
Intermediate Calculations	
Standard Error of the Mean	0.07763106516
Z Test Statistic	11.33566824
Two-Tailed Test	
Lower Critical Value	-1.959963986
Upper Critical Value	1.959963986
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p-Value 0.000E+00

# Reject the null hypothesis

In header no. 1 Accountability shows the Null hypothesis is 3, the standard deviation of population is 0.69, mean shows as 3.88, with sample size is 79, which shows the accountability of cost with performance of organization, it has significance relationship between cost and organization performance.

# **TABLE 2:**

# **H2: CORE COMPETENCIES RELATED TO PERFORMANCE:**

	Data	
Null Hypothesis $\square$ =		3
Level of Significance		0.05
Population Standard Deviation		0.72
Sample Size		79
Sample Mean		3.8
	Intermediate Calculations	
Standard Error of the Mean		0.08100632887
Z Test Statistic		9.875771575
	Two-Tailed Test	
Lower Critical Value		-1.959963986
Upper Critical Value		1.959963986
p-Value		0.000E+00
-	Reject the null hypothesis	

In header no.2, Accountability shows the Null hypothesis is 3, the standard deviation of population is 0.72, mean shows as 3.80, with sample size is 79, which shows the accountability of core competencies with performance of organization, it has significance relationship between core competencies and organization performance.

## TABLE 3

# **H3: QUALITY RELATED TO PERFORMANCE:**



	Data
Null Hypothesis □=	3
Level of Significance	0.05
Population Standard Deviation	0.71
Sample Size	79
Sample Mean	3.76
	Intermediate Calculations
Standard Error of the Mean	0.07988124097
Z Test Statistic	9.514123602
	Two-Tailed Test
Lower Critical Value	-1.959963986
Upper Critical Value	1.959963986
p-Value	0.000E+00
	Reject the null hypothesis

In header no.3, Accountability shows the Null hypothesis is 3, the standard deviation of population is 0.71, mean shows as 3.76, with sample size is 79, which shows the accountability of quality with performance of organization, it has significance relationship between quality and organization performance.

# TABLE 4: H4: ORGANIZATIONAL PERFORMANCE RELATED TO COST, QUALITY AND CORE COMPETENCIES:

	Data	
Null Hypothesis □=		3
Level of Significance	(	0.05
Population Standard Deviation		0.71
Sample Size		79
Sample Mean		3.73
Standard Error of the Mean Z Test Statistic	Intermediate Calculations  0.07988124  9.138566	
	Two-Tailed Test	
Lower Critical Value	-1.9599639	986
Upper Critical Value	1.9599639	986
p-Value	0.000E-	-00
	Reject the null hypothesis	



In header no.4, Accountability shows the Null hypothesis is 3, the standard deviation of population is 0.71, mean shows as 3.73, with sample size is 79, which shows the accountability of productivity and performance of organization with dependent variables, it has significance relationship between d.v and organization performance.

# **CONCLUSION:**

In this research paper, we cater the Manufacturing sectors of Pakistan. We have concluded that there is a positive relationship between 3<sup>rd</sup> party logistics services providers and manufacturing sectors and has a significance impact, we have taken primary data (Questionnaire format) the nature of questionnaire is (structured from), the concern respondents of relevant Industries have filled it ,We have taken Systematic Sampling techniques, in which targeted respondents are acquired, for getting accurate results. From this Study, we have considered the manufacturing sectors of Pakistan, and recommended that their key factors for the growth and enhancement of business performance, and how the 3<sup>rd</sup> Party Logistics is become the opportunity for the growth of manufacturing sectors of Pakistan.

## **RECOMMENDATIONS:**

During our research paper making, we have identified many limitations, firstly short spell of time (time constraint to conduct this research, as we have only a semester period allotted. Another thing is, we have found that there is lack of theories, regarding 3<sup>rd</sup> Party Logistics Services, with Pakistani Dilemma. Additionally, We would like to suggest the researchers for future researches, it would be more beneficial to explore more factors for best logistics services providers achievements, They can explore the ideas, selection criteria for 3<sup>rd</sup> Party Logistics service providers should be more enhance for the betterment of manufacturing sectors, like technological aspects involved for Pakistani manufacturing sectors.

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