

# An Analysis of Third-Party Logistics Market in the United Arab Emirates

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**Abstract-** The Arab Region is an emerging market in the logistics sector. The UAE's logistics industry is expanding its wings as new entrepreneurs are entering the field, contributing new technology-based solutions and services. The blending of conventional logistics players and start-ups can be seen in the UAE. The challenge in the logistics market is how the existing companies face the positive competition from newcomers which are well versed in using new trends such as artificial intelligence, and the business is transparent by the internet growth whereas traditional logistics company uses networking. The revolution of the internet has supported the logistic companies to assemble the buyers and sellers in a single platform with better process giving simple solution unlike the old lengthy method of finding vehicles, fleet and tracking delivery points. Due to rapid expeditious, enlarging trade volume, revival of the worldwide economy, extraordinary development of construction and large-scale projects, development of transportation infrastructure and geographical location of the UAE which is an added advantage connecting the trading pathways of the West, Europe, Africa and Asia, have made the UAE as an international transit hub. Due to the improvement of growth of business dynamics all over the world, outsourcing is a huge market in the United Arab Emirates. Previously various studies were undertaken to find the third-party logistics status in different countries. To the author's understanding, there was no survey conducted before in the United Arab Emirates from provider perspective and based on the capital city of Abu Dhabi. The aim of this research is to conduct a survey in order to examine the 3PL status in different areas. This paper reveals the maximum percentages of 3PL customers are satisfied with their present 3PL service provider and it has led the positive impact on the customer gratification and reduction of the logistics cost. As a result, the 3PL services are growing fast in Abu Dhabi.

**Keywords-** *Third-party logistics, 3PL, Outsourcing, Abu Dhabi, Questionnaire survey*

## 1. Introduction

### 1.1 Third party logistics (3PL)

Third-party logistics namely TPL and 3PL do not have any single definition. Third party logistics has different interpretations by various researchers. Third-party logistics as the conventional logistics

function which originated internally and later given to the outside companies to perform the logistics transaction [1]. An external operator in logistics is performing operations like managing, controlling, and delivering items according to the customer or client requirements. The external provider collects the materials from manufacturers and conglomerates all shipments from their distribution centres. Finally, the conglomerate shipments are transferred to the client location by proper transportation with proper handling [2]. 3PL is used to reduce overall logistics costs and increase operational support from 3PL suppliers [3].

### 1.2 Third-Party Logistics Functions

For the past 20 years, firms using 3PL operations have been well organized with efficient supply chain activities. According to [4], the 3PL industry developed during 1970s which was a decade of expanding globalization and a boom in IT. Results shows that companies have increased their demands and they are more competitively operating in the business market. During 1970s and 1980s service transportation, brokerage, and shipping were in great high demand. During 1980s and 1990s the service offered was asset or non-asset-based logistics with extended services and since 2000, the companies have offered web-based 3PL's with augmented supply chain generation. The 3PL operations are classified into four ways. The first category includes inventory and logistics such as freight management consolidation, freight distribution, shipment planning, traffic management, inventory management, carrier selection, and order entry/management. The second category is part of customer service including freight payments, auditing, order, management, fulfilment, help desk, carrier selection, and rate negotiation; the third category comprises warehousing, packaging, product-making and labelling. The fourth category consists of transportation such as fleet management, cross docking, and product return. The relationship between the customer and transportation services

should also be considered. These categories are integrated by information flow. Also, material progress and information progress are formulated to endorse the compatibility of each other's function [5].

### **1.3 Global third-party logistics**

The globalization of economy throughout the world has led the logistics companies to outsourcing their logistics portfolio to 3PL companies. The global 3PL market is considered likely to grow at a CAGR more than 5 per cent by 2020. The growth of the 3PL market is motivated by factors like quick globalization, enlarging amount of trade volume, and impel of the worldwide economy. The market growth will lead to demand for contract-based logistics service, contributing extensively to the growth of the industry. Also booming global development in manufacturing and other technological progress have rushed companies to concentrate on core activities. This has been the reason for outsourcing logistics operations as a cost-effective solution. The worldwide 3PL market was esteemed at \$869 billion in 2017, and is expected to reach \$1,513 billion by 2025, tagging a CAGR of 7.1% from 2018 to 2025. In 2017, the Asia-Pacific region accrued the highest share in the global 3PL market. The 3PL market is estimated to reach higher growth, due to the development of the e-commerce industry. Moreover, the demand for this service is expected to intensify the near future, due to increasing manufacturers and retailers on their important business and subcontracting operations, such as logistics where they have less experience. Thus, increase in competition has diverted the focus of manufacturers to promote respective specializations in production and distribution.

### **1.4 Logistics industry in UAE**

The UAE has been known as pillar of stability in the Middle East. Its status as a safe destination for investment is linked to its role as a regional business hub and economic gateway. The UAE economy is built on stable foundations. They have developed a model for achieving sustainable development. Its strategic trade partners come from all over the world. Worldwide investments in the UAE are flowing continually. Also, an important strategic document titled UAE vision 2021 was developed, formulated by higher authorities, which positions the citizens of the UAE at the centre of the country's development. The UAE strongly believe that a thriving economy contributes to the life of dignity that they wish to provide for their people. They want the UAE to rank among the top 10 countries on the global human development index and on the ease of doing business index. As the UAE is located in crossroads, it acts as an important transit. Jebal Ali in cargo industry is connecting North, South, East and West. Third

party logistics (3PL) is perfect for customers who are looking to use the UAE as their distribution hub to knock into markets in the Middle East, Africa, and South East Asia and CIS countries. The other benefit is the connection of Dubai World Central Airport (DWC) with the Jebal Ali Sea port and Al Maktum International Airport, by one single custom connected corridor. By this availability we can coherently transfer cargo from the seaport to airport to the warehouse and vice versa, without any custom formalities.

#### **1.4.1 Logistics an important component of UAE Economy**

The globalization policy of UAE has led to drastic growth in the trade activities within the UAE. Through the import/export markets the logistics service providers in UAE are connected to countries across the globe. The logistic market of the UAE can be divided into four services—freight forwarding, transportation, and value-added services and warehousing. Massive revenue flowing into the UAE by the trade has expanded the logistics industry. The government of the UAE has invested substantial amount of money in the development and reconstruction of warehouses in recent years. The Jebal Ali free zone has also expanded and vast area for logistics like Dubai Logistics City is constructed. The future of logistics in the UAE will expand because of the rapid growth in e-commerce and trade. The logistics industry is predicted to grow massively in the coming years, producing millions of revenues in the UAE. The country is planning to invest in the development of infrastructure, logistics and expanding foreign trade to many countries. The UAE will be the major contributor in the field of logistics by reaching 200 billion in the year 2020.

#### **1.4.2 UAE logistics market growth insights**

Logistics infrastructure is increasing and is important for the UAE as it emerges as a consignment centre for Europe-Asia trade. To manage the growing requirement for logistics services, the government is developing logistics parks, free trade zones near airports and sea ports. One such example of modernization of Airport and Seaport is the virtual corridor in Dubai, where the customs procedure is automated connecting seaports, airports and free zones on forum, allowing free movement of goods, and making the process more efficient. The UAE is a forerunner in adopting new technologies with the support of robotics and automation, and warehouses are becoming automated. Companies are testing / trying to use autonomous vehicle and drone deliveries for competent and making the end delivery faster. Many tech-based start-ups are giving powerful delivery solutions across various e-commerce logistics units. Things such as hyper loop, drones, autonomous vehicles, block chain, robotics and artificial intelligence are believed to

transform the logistics market of the UAE in the near future.

#### ***1.4.3 Wholesale and retail market index growth for the UAE 3PLs***

According to the Emirates NBD Dubai Economy Tracker Index, UAE based 3PLs in FMCG sector (Fast moving consumer goods), the wholesale and retail sector saw the strongest overall improvement in business conditions at the start of 2018, rising to 56.3 on the index.

#### ***1.4.4 UAE 3PLS pursuing strategic investment opportunities***

In the current market, 3PLs are locating that diplomatic investment in facilities and systems with the aim to accomplish increasing efficiency. In the Middle East 90% of food is imported, while 40% of all the food imported into the UAE is actually intended for re-export to other GCC markets. It is no wonder then that the logistics industry is one of the greatest contributors to the country's GDP, and within the logistics industry, 3PLs are one of the most common business models. Because every business has a logistics need, and the complexity of those needs also increases exponentially relative to the size of the company, it makes sense for a 3PL to bring into the management of the supply chain on the company's behalf. It is the reason for the explosion of innumerable 3PL companies as the GCC economy has seen tremendous growth in recent years. People are trying to outsource whatever they can to reduce their overhead costs. For this reason, 3PL sector is growing aggressively to boost the business globally. Pallet position distribution facility supports every company's 3PL activities. The efficiency of materials handling industry, and the right racking solution in a warehouse is the driving force to portray a company's performance to hold its position in the global market place. The complete and total efficiency depends upon proper planning in a warehouse, says Linda Demke, CEO of Interlake Mecalux. Also, by establishing pallet position distribution facility, a consistent network across the region can be achieved. This gives an advantage because it gives more control over the process, which is necessary in 3PL operations. 3PLs understand they must become less labour dependent to remain profitable and compete with increasingly sophisticated in-house fulfilment operations. To become a 3PL leader, the companies should invest in a fully automated distribution system. Many logistics professionals see automation as booster. It is flexible, it reduces costs, and increases security. 3PL companies which have made heavy investments in SAP, cargo wise for freight and transportation, and fleet management/GPS tracking grow constantly even when the market fluctuates. Long-term relations are the future and trust, commitment is key. Companies should not believe in short-term payoffs but

develop long-term partnerships. As indicated by the audit DCCI, the market of UAE's air freight is expected to grow by a CAGR of 4.8 per cent over the period 2017-2021 and furthermore the container port traffic in the UAE is assumed to increase from 22.4 million TEUs in 2017 to 28.4 TEUs by 2021. That is the reason the UAE's logistics sector is a hot wagered.

## **2 Literature review -Survey based**

The growth of the 3PL has got attention all over the world. From 1990s, survey-based researches are carried out to find the TPL situation in the respective country. There are some important surveys of logistics users and TPL firms in the different countries. In 1992, the use of TPL services in US manufacturers and firms were done. After the initiation of TPL services, many of the researchers started their research based on the survey method. In 1996, the Australian firms did the comparison among their industries between the years 1995 and 1999, usage of TPL in Singaporean firms in 1999, use of TPL in Saudi Arabia in the year 2005, 3PL position in Malaysia in 2003, 3PL study of India in 2006, use of TPL between the USA and Europe in 1993, Australian, American and Western European practice in 1997, Singaporean and Malaysian firms in 2006 [6]. A study was done in 2007 in the region of North America, Latin America, Europe and Asia-Pacific, North America status in 2005, the status of North America and Europe in 1993, Mexico condition in 2006, South Africa situation in 1994, Australia and New Zealand in 2005, the UAE status in 2005, Turkey condition in 2005 [7]. TPL situation in the year 2013 in India, the use of TPL services by Swedish manufacturing firms in 2009, Pakistan in 2017, the analysis of the logistics outsourcing practices in UK was done in 2005, in China the outsourcing usage of logistics service user survey in 2009 [6], in 2004, the customer understanding of logistics outsourcing in the European consumer goods industry was carried out. The observation of the situation in India from the service provider perspective in 2005. A comparative study of the TPL situation in India (2004) and North America (2006) was observed.

### **Past perception in UAE based on cities Dubai and Sharjah by Sohail et al, 2005**

To the author's understanding no survey has been conducted after 2005 in the UAE. In that, the survey of logistics outsourcing in the UAE based on the cities Dubai and Sharjah was conducted from the user point of view. In that research, 142 valid responses were received whereas 105 firms are 3PL user and 37 firms are non-user. Carrier selection (94.3%) is the foremost activity

outsourced in the UAE. In 94% of the cases, senior collaborations executives consider the usage of understanding firms as impact guileful influencing organization capability, time and cost save assets, and customer organization quality. Contract logistics firms can upgrade their position by providing a vast solution to logistics and supply chain by swapping information about market with customers and reacting quickly to modifications in demand of customers (e.g.; through flexible warehousing, distribution, and transportation systems). More than two-thirds of the firms used 3PL operations for both domestic and international purposes, followed by 17% and 10% of firms used for international and domestic operations only. 48% of firms used 3PL operation for less than a year, followed by 21% of firms one to three years, 13% for 3 to 5 years and 18% for more than five years. Almost 68% of the users were satisfied and 26% of users were very much satisfied with the performance of logistics service provider. The information source of the 3PL provider was obtained from the advertisement placed in expert publications with 76.2% of the firms affirming its use. The use of 3PL services has delivered a strong positive impact on costs, system performance, and customer satisfaction. Overwhelming 92% of the respondents proved the outcome as "positive" in every one of these regions and 36% of the use of contract logistics service specialist affected employee morale in a positive way [4, 8].

### 3 Objectives of the research

To the author's understanding, no survey has been conducted from provider's point of view till now in the UAE and no study has been done based on Abu Dhabi. The aim of the survey is to explore 3PL market in Abu Dhabi, UAE. The main aim is to address some of the issues and working of 3PL firms and 3PL users in Abu Dhabi.

- To examine why customers are approaching 3PL firms
- To identify the factors influencing success 3PL market in the UAE
- To determine the normal issues and difficulties looked by 3PL firms in the UAE
- To investigate the extent use and impact of IT system execution of the 3PL firms.
- To identify the shortfalls of 3PL providers and Impacts of logistic performance on 3PL user firms
- To find out the opportunities and growth of 3PL market.
- To find the authority compliance and cultural fit of the 3PL operation

### 4 Research methodology

The research technique was performed by collecting data from primary as well as secondary sources. The essential sources were the 3PL providers, and information was done through questionnaire surveys, telephonic meetings and individual visits. The secondary sources were collected from the questionnaire to potential respondents. The respondents were mentioned to complete the survey that best captured the current logistics status in Abu Dhabi. The survey and personal visits were completed to get the direct data about third party logistics condition and the same was cross checked with the received response from the participants of the survey. The focused populations 125 of 3PL firms and 200 3PL users were chosen from the google search engine in third party logistics companies in Abu Dhabi. First telephone calls were made to the targeted companies and we explained about our survey in order to get the appointment of their higher authority to do the questionnaire survey. Many of the companies did not give positive response for our phone calls. The field survey was conducted based on the phone call response. As a result, 24 valid responses were received from the 3PL firms with response rate of 19% and 48 valid response were received from the 3PL users with response rate of 24%.

### 5 Design of the questionnaire

The questionnaire sections have two divisions, which are given below

#### 5.1 Details of Questionnaire for 3PL specialist organizations

**Area 1:** General data: Respondents were asked to give the company name, location, Head-quarters of the company, geographical coverage, starting year of business, employee strength in UAE. **Area 2:** Services offered by 3PL firms: The respondents were approached to tick the top five services rendered by 3PL firms. **Area 3:** Factors influencing during 3PL operations: This section focused on the 3PL firms showing their weightage to the factors to succeed in 3PL industry in the UAE. The respondents were approached to tick the importance of the success factors on a 1-5-point Likert scale with 1-indicating "Not at all important" and 5- "Extremely important". **Area 4:** Common issues and difficulties looked by 3PL firms: This section focused on normal issues and difficulties looked by 3PL firms in the UAE. The respondents were approached to tick on a 1-5-point Likert scales with 1-showing "Strongly disagree" and 5- "Strongly agree". **Area 5:** Opportunities and growth of the 3PL market: This section focused on how much importance the 3PL firms will give to

the factors such as opportunities and growth of the 3PL industry in the UAE. The respondents were asked to tick the importance on a 1-5-point Likert scale with 1-indicating "Not at all important" and 5- "Extremely important". **Area 6:** IT systems Performance in 3PL firms: This section focused on how much importance 3PL firm will give to IT systems to perform 3PL operations in the UAE? The respondents were solicited to tick the importance of the IT systems on a 1-5-point Likert scale with 1-indicating "Not at all important" and 5- "Extremely important". **Area 7:** Impact created by IT systems on 3PL firms: This section focused on what will be the impact created of using IT systems on the operations of 3PL firms in the UAE. The respondents were solicited to tick the impact of IT system on a 1-5-point Likert scale with 1-showing "Strongly disagree" and 5- "Strongly agree". **Area 8:** Authority compliance and cultural fit: This section focused on authority compliance and cultural issues during 3PL operations. The respondents were approached to tick the importance on a 1-5-point Likert scales with 1-denoting "Strongly disagree" and 5- "Strongly agree". **Area 9:** Industries served: The respondents were asked to tick the markets served by 3PL firms. **Area 10:** Information sources: The respondents were asked to mention which information sources they use to get 3PL market in the UAE.

### 5.2 *Details of Questionnaire for 3PL user firms*

**Area 1:** General information: The respondents were asked to give the company name, location, Headquarters of the company, starting year of business, employee strength in the UAE. **Area 2:** Services outsourced by 3PL user: this section focused on the importance of services outsourced by 3PL users. The respondents were asked to tick the importance of services outsourced by them. **Area 3** Major Reasons: This section indicates the major reasons for customer using 3PL firms. The respondents were asked to tick on a 1-5-point Likert scale. (1- "Not at all important" and 5- "Extremely important"). **Area 4:** Factors influencing success 3PL industry in the UAE: The respondents were asked to tick the importance of the success factors on a 1-5-point Likert scale with 1-showing "Not at all important" and 5- "Extremely important". **Area 5:** Areas of shortfall from 3PL providers during 3PL operations as identified by 3PL user: The respondents were asked to tick the areas of shortfalls from 3PL firms on a 1-5-point Likert scale with 1-"Never" and 5-"Always". **Area 6:** The impact created on logistics performance measures by providing 3PL operations in a 3PL user organization: The respondents were asked to tick the impact created on 3PL users while using 3PL firms on a 1-5 point Likert scale with 1-

"Very negative" and 5-"Very positive". **Area 7:** Industries outsourced; The respondents were asked to tick the markets are outsourced by 3PL users. **Area 8:** Information sources: The respondents were asked to mention which information sources they used to get 3PL firms in the UAE. **Area 9:** Customer satisfaction; The respondents were asked to tick the overall satisfaction of the ongoing 3PL provider.

## 6.0 Results of the survey

The data were analysed based on data collection from the respondents. The analysis of data is given below, followed by a summary of findings.

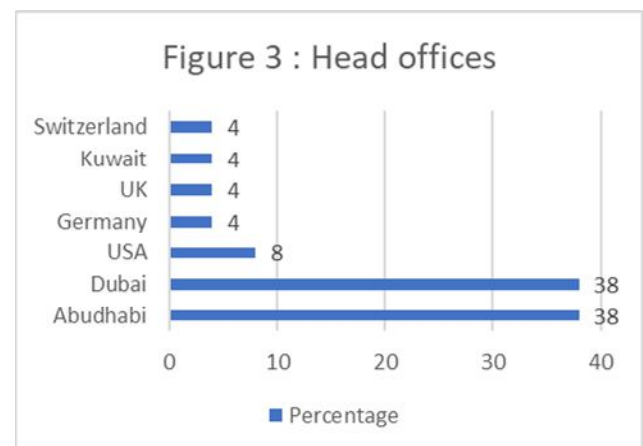
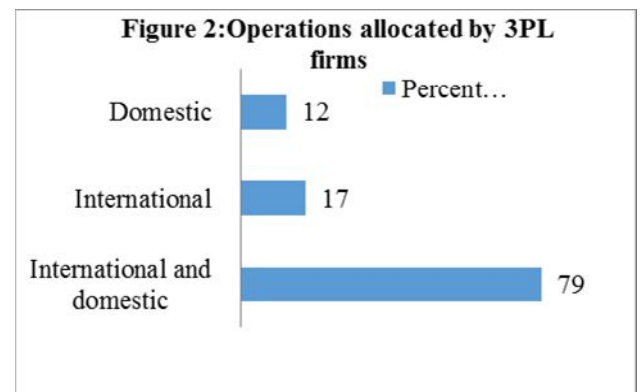
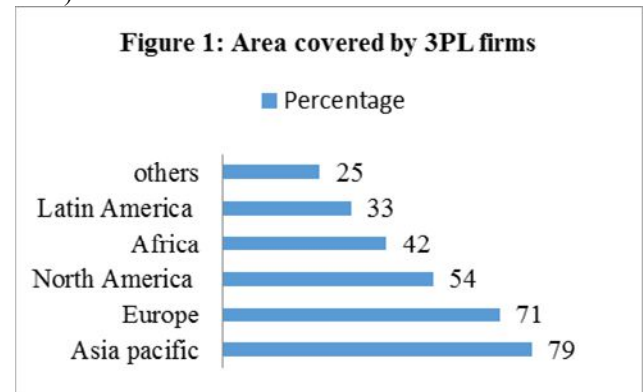
### 6.1 *Findings of the investigation*

Table 1 represents the statistic information for both the 3PL users and 3PL firms. The 3PL data analysis was done for Abu Dhabi city in UAE. The total number of respondents was as follows: numbers of 3PL users was 31, numbers of 3PL firms was 24 and numbers of non-users was 17. Based on the information collected we find that most of the surveyors began their 3PL companies in later years and 45% commenced functioning in the last decade. Among 3PL users the number of employees working varied: 55% of the respondents were employees and the number was below 100,16% of the respondent companies had employees between 100-249,13% had 250-499 employees, 13% employed 500-999, and 4% had more than 1000 employees. The percentage of employees working in non-user firms varied as: 76% of the firms had less than 100 employees, 12% had 100-249 employees, 6% of the firms were accommodating employees between 250-499,6% have employees between 500-999. The top notch industry in which 3PL users were serving was found to be automotive (65%), construction building materials(61%), manufacturing (55%), agriculture (32%) ,oil and gas (23%), electronics and chemicals (13%),consumer packaged goods (6%),renewable energy, food and beverage, apparel and textile, furniture, health care and others were (3%).Topmost companies adopted 3PL in their firms in areas such as chemicals (83%), Electronics (75%), construction and building materials, furniture, apparel and textiles, oil and gas (71%), automotive (67%), consumer-packaged goods (63%), food and beverage (58%), agriculture (54%), aerospace and pharmaceuticals (50%), trade show (38%), renewable energy (33%), grocery (25%), others (8%). Top most non-user companies adopting 3PL are as follows: construction and building materials (71%), furniture (24%), automotive, food and beverage, apparel and textiles (6%).

**Statistic information (Table: 1)**

	3PL users	3PL firms	Non-user
<b>Absolute number of respondents</b>	31	24	17
<b>Year of beginning the business</b>			
1871-1900	1	2	0
1901-1990	7	7	2
1991-2005	11	4	9
2006-2018	12	11	6
<b>Year of usage of 3PL firms</b>			
1871-1900	0	1	Nil
1901-1990	5	7	Nil
1991-2005	12	5	Nil
2006-2017	14	11	Nil
<b>Type of industry belong to/being served in percentage</b>			
Aerospace	0	50	0
Agriculture	32	54.1	0
Automotive	65	67	6
Chemicals	13	83	0
Construction & Building Materials	61	71	71
Consumer packaged goods	6.4	63	0
Electronics	13	75	0
Renewable energy	3	33.3	0
Food & Beverage	3	58	6
Apparel & Textiles	3	71	6
Furniture	3	71	24
Grocery	0	25	0
Healthcare	3	54.1	0
Oil & Gas	23	71	0
Pharmaceuticals	0	50	0
Trade show	0	38	0
Manufacturing	55	58.3	0
Others-----	3	8	0
<b>Employment strength</b>			
Less than 100	17	16	13
100-249	5	2	2
250-499	4	2	1
500-999	4	3	1
More than 1000	1	1	0

number of respondents mentioned they covered 79% for Asia pacific region followed by Europe (71%), North America (54%), Africa (42%), Latin America (33%) and others (25%). 79% of firms are using both international and domestic operations, 17% of firms are focusing only on international operations and 12% firms are concentrating on pure domestic operations alone. The majority of the 3PL firms have 38% of the head offices in Abu Dhabi and Dubai followed by the USA (8%) and Germany, the UK, Kuwait, and Switzerland (4% each).



**6.2 Coverage of contract logistic service used**

Figures 1-3 shows the respondents idea of regional coverage with their Headquarters. Maximum

**6.3 Logistics job offered by 3PL firms and outsourced by 3PL users**

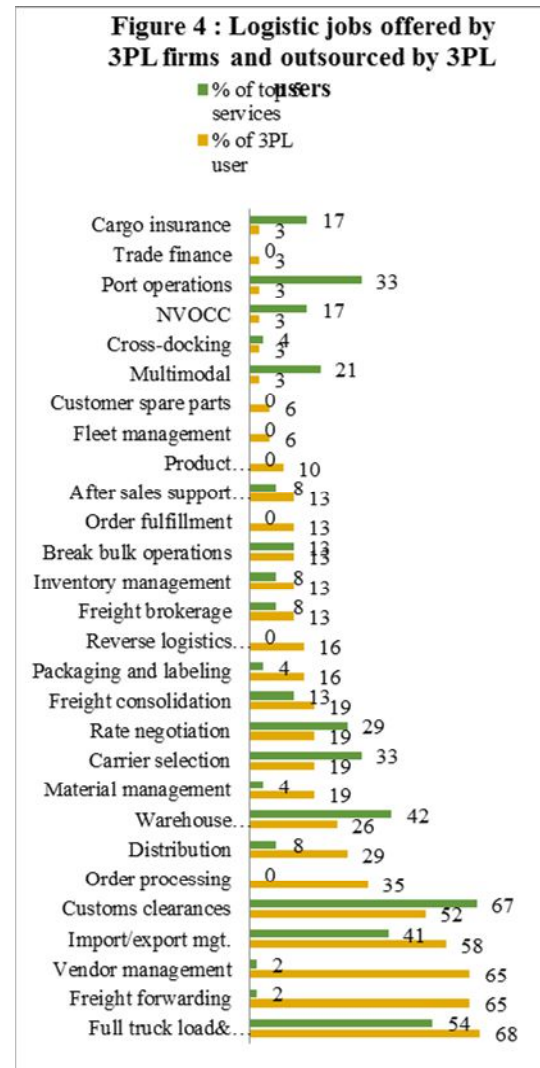
Figure 4 shows that the responding 3PL user organizations present their services details obtained from their main 3PL providers and services offered by 3PL providers. The study indicated the highest service utilizations of customers are Full truck load & transportation management (68%), Freight forwarding, and Vendor management have equal markets (65%) at the 3PL industry. Export / import management (58%), Customs clearances (52%), order processing (35%), Distribution (29%), Warehouse mgmt. / operations (26%), Material management, Carrier selection, Rate negotiation, and Freight consolidation have the same value (19%), Packaging / labelling and Reverse logistics (16%), Freight brokerage, Inventory management, Break bulk operations, Order fulfilment and After sales support payment collection have the same value (13%). Product assembly / installation (10%), Fleet management and Customer spare parts are (6%) and Multimodal, Cross-docking, Port operations, NVOCC, Trade operations and Cargo insurance are 3%. The responses clearly show that operational services are mostly outsourced. The 3PL firms were asked to provide the top five services offered by their firms. The observations show Customs clearances (67%) are the most successful services provided by them.

Full Truck load and transportation (54%), Warehouse management/operations (42%), Import/Export management (41%), Carrier selection and Port operations (33%), Rate negotiation (29%), Multimodal (21%), NVOCC and Cargo insurance are 17%, Freight consolidation (13%), Breakbulk operations (13%), Distribution, Freight brokerage, Inventory management, After sales support payment collection have the same value 8%, Material mgmt., Packaging and labelling and Cross-docking are 4%, Vendor mgmt. and Freight fwd. are 2%.

**6.4 Outsourcing Necessity**

The respondents were asked to specify the major factors which influenced them to take a decision regarding outsourcing by 3PL with respect to five-point Likert scale. The foremost reasons for outsourcing by the 3PL user organization are improved customer service and logistics cost reduction (3.8), to better process responsiveness (3.77), improved conformance quality (3.7), improved process capability and cycle time (3.7), developing supply chain flexibility (3.5), improving process lead time (3.5), productivity improvements (3), focus on core competencies (2.8), increasing inventory turn (2.5), improve return assets (2.4), access to emerging technologies

and operation of IT systems occupied by equal average mean (2.3), corporate restructuring (2.2), diverting capital investment (2.2), e-commerce application (2.2), and access to unfamiliar markets (1.9). The major factors influencing outsourcing as shown in pictorial representation in Fig 5.

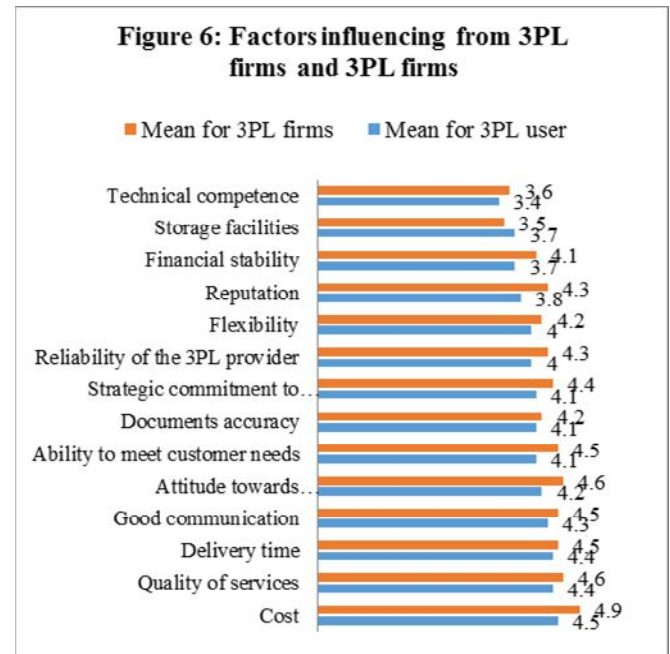
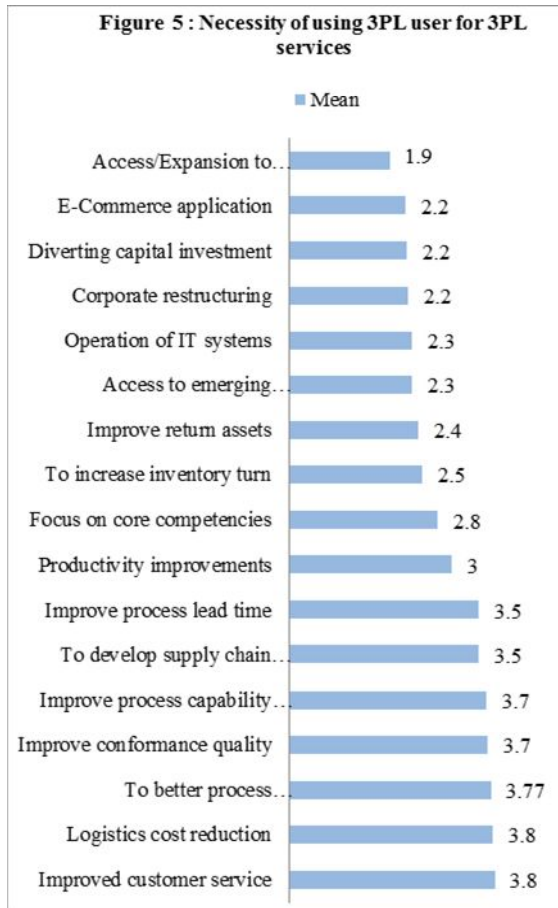


**6.5 Factors influencing to successful 3PL industry in the UAE**

Figure 6 shows factors influencing the success of 3PL industry in the UAE. The 3PL user respondent identified cost as the most important criterion with highest average mean score (4.5) and followed by quality of services (4.4), delivery time (4.4), good communication (4.3), attitude towards customer / relationship (4.2), ability to meet customer needs (4.1), documents accuracy (4.1), strategic commitment to customers (4.1), reliability of the 3PL provider (4.0), flexibility (4.0), reputation (3.8), financial stability (3.7), storage facilities (3.7) and technical competence (3.4). The 3PL firm's respondents were identified cost as the most important criterion in this respect with highest average mean score (4.9) and followed by attitude

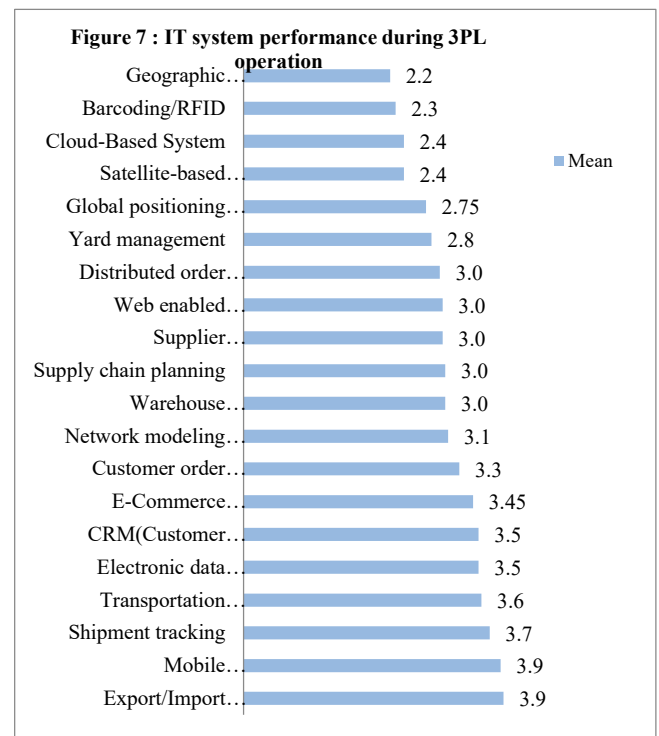
towards customer / relationship and quality of services having equal mean score (4.6) and delivery time (4.5), ability to meet customer needs (4.5), good communication (4.5), strategic commitment to customers (4.4), reliability of the 3PL provider and reputation sharing same value (4.3), flexibility and documents accuracy having the same value (4.2), financial stability (4.1), technical competence (3.6) and storage facilities (3.5).

(2.4), Cloud-Based System (2.4), Barcoding/RFID (2.3) and Geographic information system (2.2). This shows 3PL operators in Abu Dhabi are growing in the graph and it is not on the verge of high technology side when compared to Dubai where 3PL operators are using automation and the industry expanding tremendously.



**6.6 IT system performance**

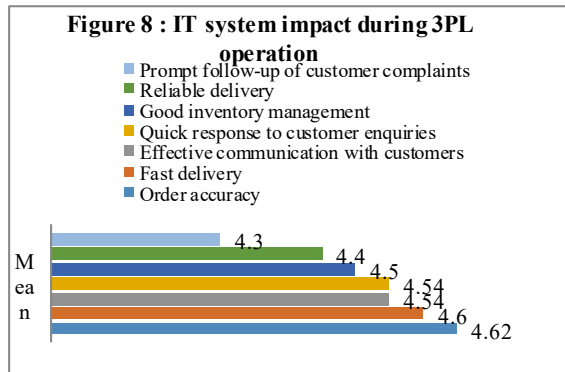
Figure 7 presents the results of IT system performance during 3PL operation. Outcome of the survey shows that IT system performance excels in Export/Import management system (3.9), Mobile communications (3.9), Shipment tracking (3.7), Transportation management (3.6), EDI and CRM (3.5), E-commerce application (3.45), and Customer order management system (3.3). These are the high-performance rates provided by 3PL firms during their operations. The mild usage of IT systems by Network modelling and optimization (3.1), Warehouse distribution system (3.0), Supply chain planning (3.0), Supplier management system (3.0), Web enabled communication (3.0), Distributed order management (3.0), Yard management (2.8), GPS (2.75) and the areas need improvement are Satellite-based tracking system





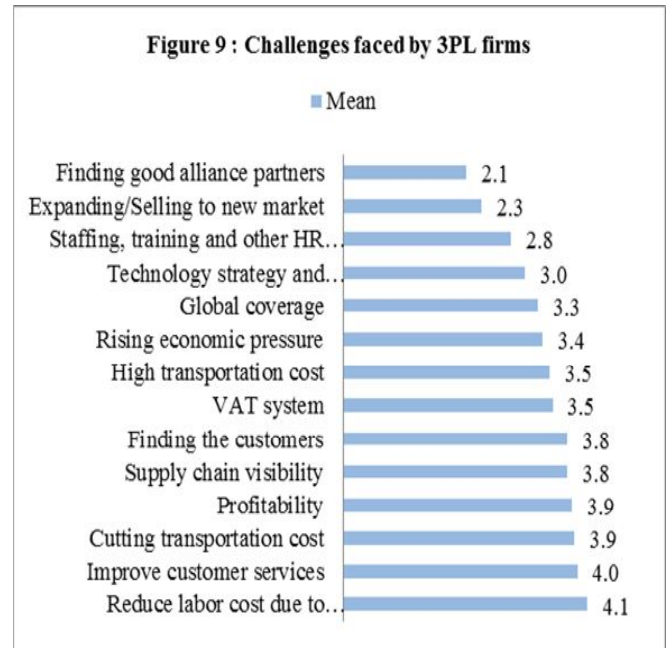
**6.7 Impact of usage of ITES on Abu Dhabi Companies**

Figure 8 represents ITES play an essential role in lifting activities daily. Effective use of ITES by 3PL firms in order accuracy, fast delivery, effective communication with customers and quick response to customer enquiries have the same mean value as good inventory management, reliable delivery and prompt follow-up of customer complaints with the mean values of 4.62, 4.6, 4.54,4.5, 4.4 and 4.3.



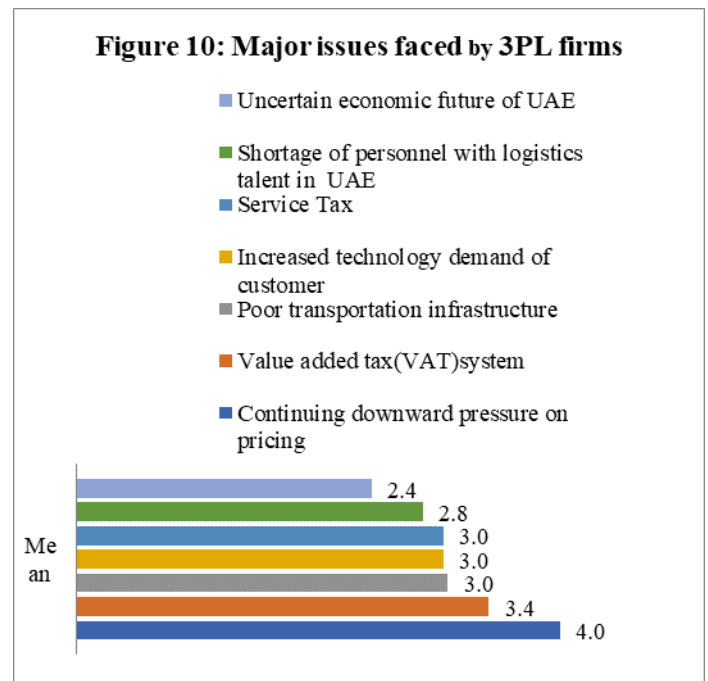
**6.8 Challenges faced by 3PL firms**

Figure 9 shows the challenges that confront the 3PL firms in the UAE. The respondents were asked to give their opinion about the critical aspects faced by 3PL firms in UAE. The identifications are summarized in average mean score and it is followed by reduced labor cost due to competition market (4.1), improved customer services (4.0), cutting transportation cost and profitability have the same mean value (3.9), as supply chain visibility and finding the customers are sharing equal mean score (3.8), VAT system and high transportation cost (3.5), rising economic pressure (3.4), global coverage (3.3), technology strategy and implementation (3.0), staffing, training and other HR issues (2.8), expanding / selling to new market (2.3) and finding good alliance partners (2.1).



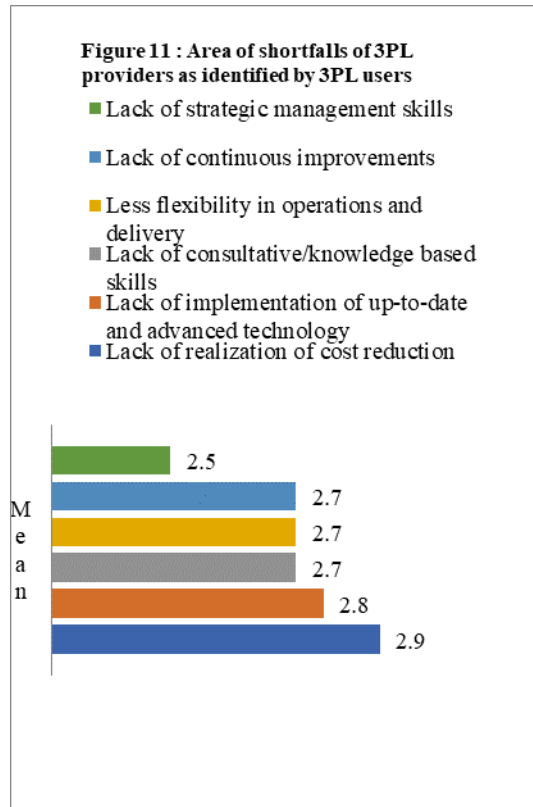
**6.9 Major issues faced by 3PL firms**

Figure 10 shows the major issues faced by 3PL firms in the UAE. The respondents identified continuing downward pressure on pricing as the most important problem with highest average score of 4.0. It is followed by value added tax(VAT) system (3.4), poor transportation infrastructure, increased technology demand of customer and service tax having equal score (3.0), skilled logistics employee shortage in the UAE (2.8) and uncertain economic future of the UAE (2.4).



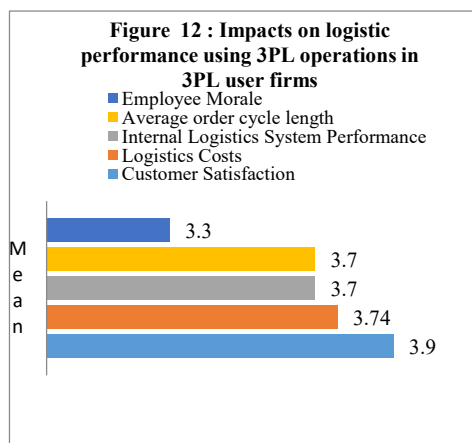
**6.10 Shortfalls of 3PL providers**

Figure 11 represents the many shortfalls found in 3PL user while using 3PL firms in the 3PL operations. The respondents identified lack of realization of cost reduction with mean value 2.9 as major shortfall from 3PL firms followed by lack of implementation of up-to-date and advanced technology(2.8),lack of consultative/knowledge based skills, less flexibility in operations and delivery and lack of continuous improvements sharing the same mean score (2.7) and lack of strategic management skills(2.5).



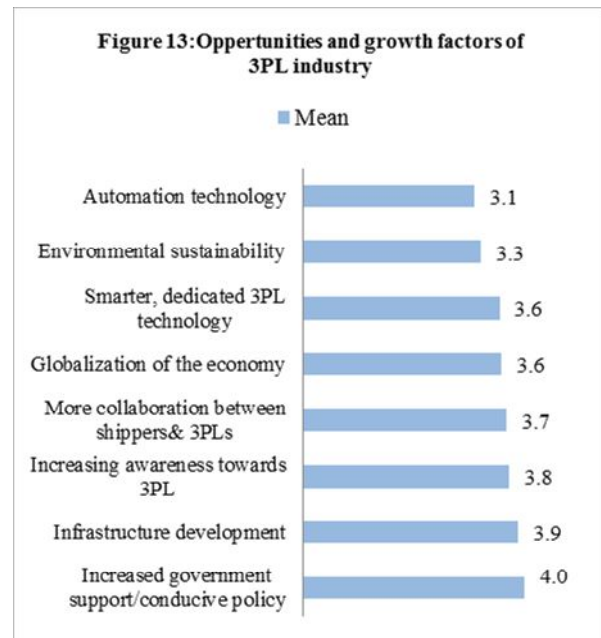
**6.11 Impact of logistic performance of 3PL firm’s usage on 3PL user firms**

Figure 12 shows that there are areas of impact on 3PL user firms during 3PL operations while using 3PL firms. The customer satisfaction is the most important performance measure in 3PL users and is given highest mean value of 3.9 followed by logistics costs (3.74), internal logistics system performance and average order cycle length having the same mean score (3.7) and employee morale (3.3).



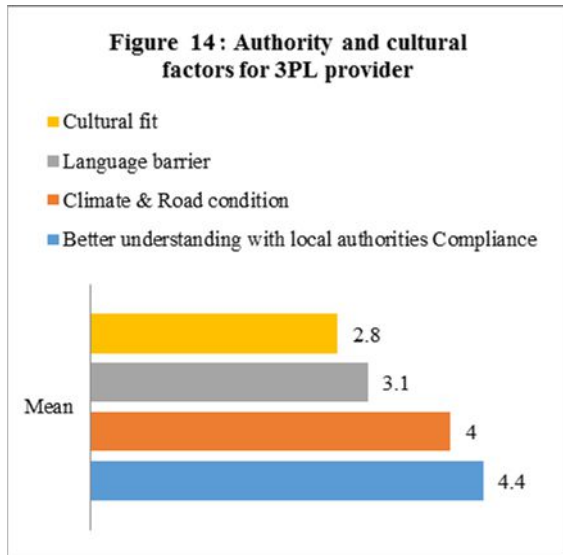
**6.12 Opportunities and growth of 3PL market**

Figure 13 demonstrates the normal mean score of chances for the development of 3PL industry in the UAE. The respondents were asked to mention the factors influencing the growth and opportunity of 3PL firms. The respondents assigned ranks according to their mean values as increased government support / conducive policy (4.0), infrastructure development (3.9), increasing awareness towards 3PL (3.8), more collaboration between shippers & 3PLs (3.7), globalization of the economy (3.6), smarter, dedicated 3PL technology (3.6), environmental sustainability (3.3) and automation technology (3.1).



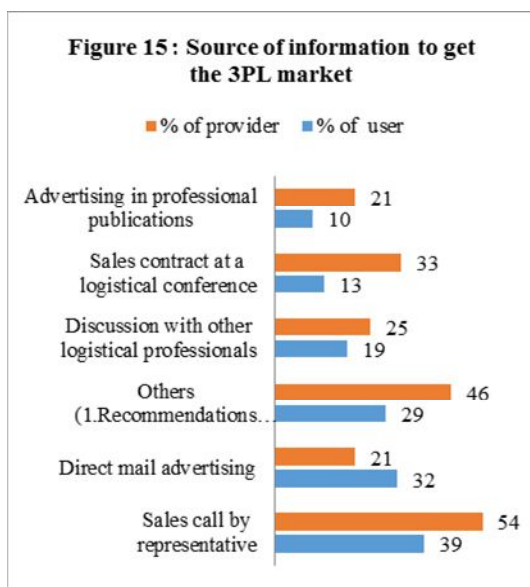
**6.13 Authority compliance and cultural fit**

Figure 14 shows how the authority compliance and cultural fit interact with 3PL firms during the operations. The respondents were asked to mention the authority compliance and cultural fit factors influencing the 3PL firms. The respondents identified top rankers as follows; better understanding with local authorities’ compliance, climate & road condition, language barrier and cultural fit. The corresponding mean scores are 4.4, 4.0, 3.1 and 2.8 respectively.



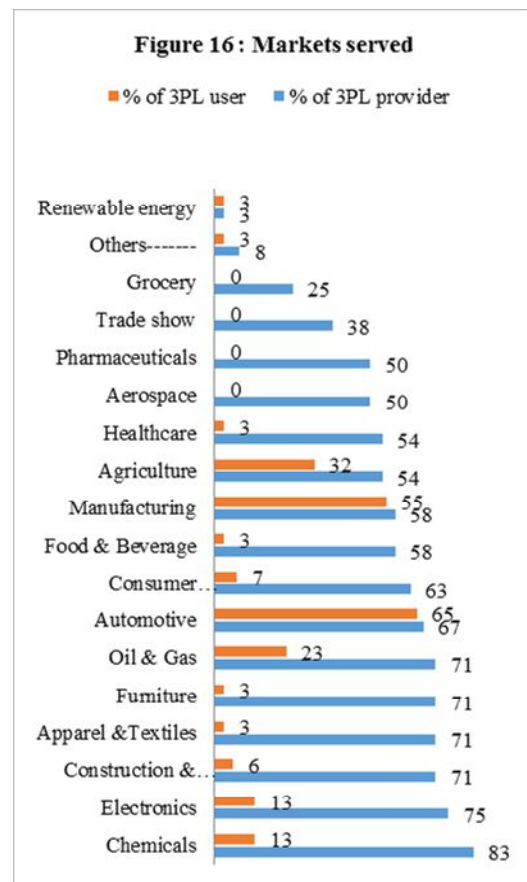
**6.14 Information source**

Figure 15 shows the source of information to obtain the 3PL market for 3PL firms and 3PL users in Abudhbai. Respondent were asked how they get market from the customer. As per mentioned figure, the most common ways are Sales call by representative (54%), Others (1. Recommendations from friends 2. Market contacts 3. Appointed by customers) is 46%, Sales contract at a logistical conference (33%), Discussion with other logistical professionals (25%), advertising by direct mailing and advertising in professional publications are 21%. Also 3PL users are identified sales call by representative (39%), direct mail advert (32%), Others (1. References from friends, 2. Market contacts, 3. Appointed by customers) is 29%, Discussion with other logistical experts (19%), Sales contract at a logistical seminars (13%) and Advertising in professional publications (10%).



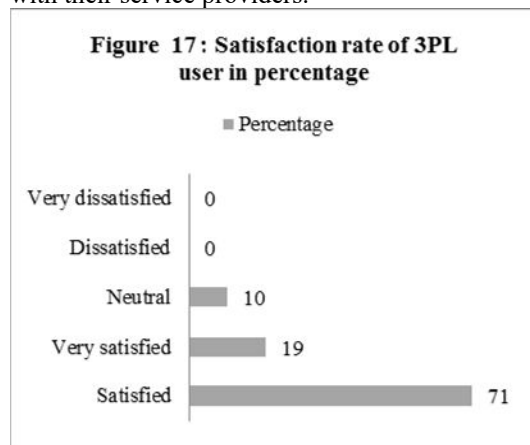
**6.15 Industries served**

Figure 16 shows the percentage of industries served by 3PL firms and requested by 3PL users. The respondents were asked to put tick mark on the industries served by 3PL firms. The ranks identified by the 3PL firms are as follows in percentage: Chemical industry (83%), Electronics industry (75%), Construction & Building Materials, Oil & Gas, Furniture and Apparel & Textiles are occupying by same slot (71%). Other industries and similar percentage of those who answered working in these industries are as follows automotive industry (67%), Consumer packaged goods (63%), Food & Beverage and Manufacturing are in same slot (58%), Healthcare and agriculture has the same value (54%), Aerospace and Pharmaceuticals sharing the same value (50%), Trade show (38%), grocery (25%), Others (8%) and Renewable energy (3%). The ranks were identified by the 3PL users are as follows in percentage automotive (65%), manufacturing (55%), agriculture (32%), Oil & Gas (23%), Chemicals and electronics are have the same market (13%), Consumer packaged goods (7%), construction & Building Materials (6%), Apparel & Textiles, Furniture, Food & Beverage, Healthcare, Renewable energy and others are occupy the same slot (3%).



### 6.16 Overall satisfaction of current 3PL provider

The 3PL users were asked to tick the overall satisfaction of their current 3PL service provider. Fig (17) shows that 71% of 3PL users were satisfied with their current service provider, 19% of users are very satisfied with them and 10% of the users have given neutral value for the current 3PL service provider and none of them are dissatisfied with their service providers.



## 7.0 Summary of research findings

This research has found that the majority of the 3PL providers have their head office in Dubai. Even though, they have a smaller number of employees in Abu Dhabi, they are getting the 3PL market in Abu Dhabi in order to develop their company career and progress which will bring the 3PL market in growing condition in Abu Dhabi. Full truck load & transportation management, freight forwarding, and vendor management are most frequently outsourced by the 3PL users in Abu Dhabi. Customs clearances, full truck load & transportation management are the main services provided by 3PL firms. From the survey it was found that the 3PL user's organizations chose the outsourcing activities due to improved customer service and logistics cost reduction which are followed by better process responsiveness, improved conformance quality and improved process capability and cycle time.

This observation shows that the activities are frequently outsourced for the operational success of customer satisfaction and smooth flow of supply chain activities. Cost, quality of services and delivery time are the most important influencing factors and financial stability, storage facilities and technical competence are the least important factors for both 3PL provider and 3PL user perspective in Abu Dhabi.

It is observed that the priority is given to the logistics and business performance measure rather

than financial performance measure and another technical competency.

This study reveals that 3PL firms are facing common problems in Abu Dhabi like continuing downward pressure on pricing and Value-added tax (VAT) system, which show that world economic downside always affects the 3PL market in the UAE and cost rate negotiations of export/import items from the customers. The systems supporting the industry are export / import management system, mobile communications, shipment tracking and transportation management (Planning & Scheduling) systems are the most IT systems performance in the 3PL activities during their 3PL operations having high impact on order accuracy, fast delivery of the goods and effective communication with customers. It was observed that the IT activities are frequently performed for the operational success and impacts of IT system showing that the customer satisfaction and their material delivery. 3PL users have understood that the 3PL firms are aware of their own shortfalls such as lack of realization of cost reduction, lack of execution of latest and advanced technology, lack of skills based on consultative/knowledge less flexibility in operations and delivery, lack of continuous improvements and lack of strategic management skills. As a result, the customers are expecting from 3PL providers to update their technology at the right time in order to improve their logistics work flow and business performance measures. Most of the 3PL providers are looking forward to increasing government support / conducive policy which will be the best way for opportunities and growth factor of 3PL industry in Abu Dhabi. Most of the 3PL users know how to get the TPL services by sales call by representative and 3PL providers are also using the same way to get the 3PL market from the customers. This result shows that the 3PL providers should have some attractive ways to get the market and through proper channel to communicate and to approach with 3PL users. Most of the 3PL users are satisfied with the performance of current 3PL providers and they are fulfilling their expectations. 71 percent of 3PL users mentioned that they were satisfied with the current 3PL providers. Remaining 19 percent were very satisfied with them, 10 percent of the 3PL users had neutral position and none of the 3PL users did not mention any negative comments on the present 3PL provider's services.

## 8.0 Conclusion

This study has elaborated many key issues involved in third-party logistics (3PL) in Abu Dhabi, UAE. The principle of using TPLs cannot act justifying logistics cost reduction, but it is a combination of service improvement and client's satisfaction

through better process responsiveness and conformance quality of services. The most repeated activities are operational and business performance activities which are full truck load & transportation management, freight forwarding and customs clearances. Financial and knowledge-based activities like trade finance, consulting services and operation of IT systems are outsourced to a smaller extent. The highly potential growth sectors are information technology services which the logistics services provider offer. However, there are some indicators that those deeds especially the supply of capable IT services can an important factor the value prefer in 3PL users and 3PL firms. Currently IT systems are preferred little by small and medium sized companies. Even though there is tremendous opportunity to use the IT applications in export/import management system, mobile communications and shipment tracking during the 3PL operations. 3PLs have advantage directly by the variety of information system that is available. Customer order management system, Network modelling and optimization, Warehouse distribution system and Supply chain planning must be adopted increasingly to ensure cost effectiveness. Global positioning system (GPS), satellite-based tracking system, Cloud-Based System, Barcoding / RFID and Geographic information system (GIS) need to be increasingly adopted to use the logistics performance and its effectiveness. Besides, 3PLs generally use software with global platforms and can interplay systems easily with their customer's enterprises resources planning software and any present warehouse management systems. IT Technology also can help assuage concerns about order accuracy, fast delivery and effective communication with customers. However, reduced labour cost due to competition market, improved customer services, cutting transportation cost and profitability are the main aspects which continue to challenge in the UAE market. However, 3PL firms can focus on these areas to reduce their competition market in Abu Dhabi. Continuing downward pressure on pricing, value-added tax (VAT) system and poor transportation infrastructure are the most common problems faced by 3PL firms. Increased government support / conducive policy, infrastructure development and increased awareness towards 3PL are the main aspects that can create opportunities and growth factors for 3PL industry in the UAE. The country has concentrated on infrastructure development through rejuvenating network. Better understanding with local authorities and climate and road condition is the other factors 3PL firms must face in the UAE too. Also, other factors like language barrier and cultural fit are not much considered in the 3PL operations. From the study we find that most of the 3PL users are appeased with the services offered by

3PL firms which show that the 3PL providers have efficiently handled their requirements of logistics needs. Customer satisfaction, reducing logistics costs, internal logistics system performance, and average order cycle length have the positive impact on the 3PL user companies while using TPLs and employee morale have some negative impact on the user companies. Even though the world economy is going down the 3PL market is boom in Dubai, but it has still emerging trend and is growing fast in Abu Dhabi due to fast globalization, expanding trade volume, recovery of the worldwide economy, extra ordinary development of construction and large-scale projects, development of transportation infrastructure and geographical location between the trading pathways. Logistics is a significant part of economy and each business improvement in the UAE.

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