

Improving Performance through Third-Party Logistics (3PL) Providers: an Empirical Investigation of Jordanian Trading Companies

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Abstract

Relating to the accelerated development in the world of business, third-party logistics (3PL) providers have globally become a prevalent practice among many organizations, particularly among small and medium-sized enterprises (SMEs). According to extant studies, the most common four logistics services usually provided through 3PLs (outsourced) are: delivery service, supplying, warehousing, and transportation services. With that being said, this paper presents an analysis of the SME outsourcing practice among a sample of Jordanian trading companies and the posited impact on the performance of their outsourcing efforts.

Keywords: Logistics Service Provider, Small and Medium-Sized Enterprises, Contract Logistics, Outsourcing, and Third-Party Logistics (3PL)

1. INTRODUCTION

Small and medium-sized enterprises (SMEs) show a decisive act as a player in the improvement of a nation's economic growth [Donkor et al., 2018]. According to [Wu et al., 2017], SMEs are very important for the stability of national economies as they can enhance innovation and productivity; functioning as the engine to solve the unemployment problem. In a developing country like Jordan, SMEs comprise 98.5% of the total amount of registered companies, and 60% of formal

jobs, in addition to 50% of the GDP, and they are considered the backbone of a country's economy.

The role of SMEs has become increasingly important, especially in the dynamic business environment, where these organizations are being exposed to many confrontations and challenges that pose threats to the survival and development of those businesses. SMEs can face increased worldwide competition by introducing more on-edge inventions and innovations [Al Qirim, 2003], alongside revising their strategies continuously to cost-cut as means for consolidating their competitive advantages [Halim et al., 2017]. Achieving these goals necessitates an amount number of SMEs to endeavor to restructure internal processes and build flexibility by contracting out activities and processes consistently performed in-house [Skiffington et al., 2013; Mageto et al., 2018; Taponen & Kauppin, 2019]. Many SME entrepreneurs have turned to a Third-Party (3P) or outsourcing as a new management strategy during the time in which outsourcing has become a trend as one of the most sustained developments over the last ten years [Taponen & Kauppi, 2020].

Outsourcing mainly includes requesting from an outside supplier to carry out at least one business function, activity, or process instead of performing it internally by the company. One of the most significant activities to be outsourced by SMEs is logistical activity, since SMEs have limited capacities to launch their departments of logistics. Thus, outsourcing has become the practical solution to all logistics-related challenges. Some of the most significant reasons that motivate companies to deal with 3PLs are: growing demand for customized products, intensive market competition, emerging demand for special services, the need for emphasizing internal critical operations (core competencies) to maintain performance efficiency, reduce back-office costly operations, improve customer satisfaction level, reduce the costs of company liabilities, achieve economies of scale, and maintain an effective real-time tracking.

The critical question required to be raised in this context is which task could be assigned to a third-party logistics provider. The reasonable answer to this type of question depends on the nature of the concerned outsourcing sector and the main capacities of the logistic company. Halldorsson et al., (2004) have answered the above question by determining the requested outsourced logistics services as follows: Warehousing services, outbound transportation services, cross-docking, shipment consolidation, inbound transportation services, auditing/payment of

freight bills, freight forwarding, order fulfillment and distribution, and inventory management. At the emergence stage of the outsourcing concept, the 3PL providers are mainly concerned with specific types of services such as transport and warehousing. It is noticed that the increase in market demand for corporate and individual requirements has caused a considerable increase in the demand for logistics services [McKinnon & Forster, 2000; Mol, 2001; Ogorelc et al., 2002; Langley et al., 2002].

During the late nineties, the outsourcing approach was empowered by the companies' adoption of the concept of focusing on internal core competencies. As a result of a continuous improvement in the demand for professional logistics, contemporary logistics services companies have continuously expanded and grown [Pralhad & Hamel, 1990; Schwarz, 2005; Scholz-Reiter et al., 2008; Klaus et al., 2010]. Currently, a majority of business organizations are progressively dealing with 3PLs and outsource their entire logistics to external logistics services providers. Due to an increasingly diversified demand for logistics services, the providing companies of logistics have been offering a customized integrated logistics service package under the terms of contract logistics.

Small and medium-sized companies usually suffer from limitations in capacities, resources, and proper logistical competencies, making it difficult to meet the increasing demand for logistics services. Therefore, they have turned to logistics outsourcing and dealing with 3PLs, but in specific areas such as transport or storage services [Kummer, 1992; Weber et al., 2007; Straube & Frohn 2007; Gericke 2009]. Therefore, what would be fresh and innovative is that this paper presents an analysis of the SME outsourcing practice among a sample of Jordanian trading companies and the posited impact on their performance of their outsourcing efforts.

This paper is divided into five main sections apart from the introductory section, and structured in the following manner. Section Two explores the Literature Review. Section Three examines the Methods. Section Four presents the Hypotheses Testing, and in Section Five, the Discussion, Conclusion, and Recommendations are presented.

2. LITERATURE REVIEW

This section gives insight into the related literature review through the following three subtopics.

2.1 Contract Logistics

Contract logistics is a comprehensive process in which two parties reach an agreement to provide logistics services using a specific system. These services vary to include core logistics and information among others. Core logistics can be divided into three main sections, transshipment, storage, and transportation. Core logistics services can also constitute stationary and non-stationary value-added services expanding the value chain.

According to Frohn, logistics value-added services are defined as logistical tasks developed for the sake of client or segment's needs beyond the services in the sector of transport, transshipment, and warehousing. Logistics' external provision by a specialized service provider represents a reasonable net-value increase compared to the internal provision of these services [Frohn, 2006; Kille, 2008; Klaus et al., 2010]. Hiring 3PLs to carry out services has been assimilated into many operation systems under the term "Logistics Outsourcing". Incorporating the logistics service provider systems into the company's operating system ensures the maximum benefit of logistics outsourcing and establishes trust between the parties involved [Isermann, 1998; Sucky, 2004; Gudehus, 2007; Drodofsky, 2011]. As put by [Baumgarten et al., 2002], logistics services fall into four main categories varying between operational and strategic logistics services, and the latter increases with demand as follows:

- logistics services,
- service provider operators,
- invested logistics assets, and
- number of value-added services.

Improving service providers and delivering better solutions for service-related issues requires bringing performance enhancement systems forward, including consultation, assembly, financial, and IT services. Connecting the client with the service provider in logistic outsourcing service, on the other hand, remains challenging. Thanks to the efficiency in cost and quality that companies maintain when forming contracts with logistics services, contract logistics contributes to industrial companies. Due to the fact that big companies have sufficient financial resources to establish and manage their logistics departments, small or medium-sized businesses (SMEs) need to reach out to outsource logistics to manage logistics services due to their limited financial resources and capital market accessibility [Bitzer, 1977; Pfohl & Buse, 2000; Zadek, 2004; Drodofsky, 2011]. The following table shows

the largest logistics service providers controlling the logistics services market worldwide.

Tab. 1: Logistics Market Share

Name	Rank	Revenue Billion US\$	Information	Rank
UPS Supply Chain Solutions	1	97.3	United Parcel Service is an American multinational package delivery company and a provider of supply chain management solutions.	USA
DHL Logistics	2	87.3	DHL is one of the most recognizable logistics brands across the globe, specializing in international shipping, courier services, road and rail transportation, air and ocean freight, international parcel and express mail services, and contract logistics.	Germany
FedEx Corporation	3	84	FedEx Corporation is a US multinational courier delivery services company with its headquarters in Memphis, Tennessee.	USA 2
Maersk	4	61.8	The Danish shipping company's profits soared by 55 percent in 2021. As a result, Maersk has been able to make long-term investments focused on growing further as well as decarbonization.	Denmark
Kuehne + Nagel	5	34.2	Kuehne + Nagel was founded in 1890 in Germany. Today it operates in 106 companies and is a major sea freight provider globally. In 2021, the company expanded its innovative Sea explorer platform to assess potential obstructions along the supply chain due to issues such as processing inefficiency and adverse weather conditions.	Switzerland

DSV	6	26	Founded 40 years ago, DSV operates in 75 countries with 47,000 employees. The company moves more than 20,000 trucks a day to deliver goods, as well as more than 650,000 tons of air freight every year.	Denmark
DB Schenker Logistics	7	24.55	DB Schenker is the logistics division of the German rail group Deutsche Bahn AG. Recently, the company has set up its charter network in the air freight market and expanded its climate-friendly, biofuel-based options. It recorded record profits in 2021.	Germany
C.H. Robinson Worldwide	8	23.1	C.H. Robinson was formed in 1905. Today it prides itself on being a sustainable logistics firm with ambitious initiatives to support climate goals, diversity, and innovation.	USA
Sinotrans	9	18.9	Sinotrans was formed in 1950 and is currently one of the biggest integrated logistics providers in China. It also provides storage and terminal services.	China
Nippon Express	10	18.8	Nippon Express was founded in Japan in 1932. The company operates in more than 730 locations and continues to expand; most recently by acquiring GDP certification for temporary storage and transport of pharmaceutical products in the Middle East.	Japan

Source: Pharma Logistics (2022)

Logistics service providers fall into four main groups according to the type of service offered. Individual Service Providers (ISPs) are limited value-added operational services provided by independent contractors to clients. Due to Logistics Assets, the services of ISPs are restricted and not varied, preventing the client from facilitating from a wide range of services. Freight forwarders or forwarding agents are persons or companies performing operational services for clients and coordinating with other agents, customers, and companies. Freight forwards offers a wider range of value-added services than individual service providers.

Third-party (contract) logistics service providers extend a range of value-added logistics services for the customers, specifically designed to fulfil their needs and include them in a larger business network that not only covers traditional logistics but also digital logistics and different sorts of logistics services. Fourth-party logistics providers (4PLs) are comprehensive service providers that grant a variety of services including handling sources, infrastructure, and cooperating with other agents. Different criteria come into play in business relationships between service providers and clients. The individuality and private nature of the relationship between a client and a provider, the contract duration, and the volume of business are the major factors governing business relationships.

Customized services provided by individual service providers demand an agreement establishing clear terms and conditions for business relationships. This agreement, called a bilateral investment (BIT) guides the relationship between a client and a logistics provider. Maintaining the investment and providing specified and individualized services for the client requires extending the contract duration for longer periods. Contracts last commonly between 3 and 10 years or longer, depending on the types of services provided to the client [Gudehus, 2007; Kille, 2008].

The volume of business is considered another important factor in selecting service providers. Annual sales turnover should be the basis for contract logistics agreed on through negotiations and agreements, as claimed by Klaus et al. (2010). Individual service providers offer a tailored logistics value-added service package consisting of traditional services that distinguish the client from other companies and businesses and lead to growth in profits and benefits. Two main contract logistics business models are used as references to business organizations; the single-user (classical) system and the multi-user system. The single-user system or the “Real Contract Logistics” is a logistics service package put together and customized for the client’s needs, demands, and requirements. However, the multi-user system utilizes its services to serve many companies at the same time without being exclusive to one. Multi-user systems can also facilitate from the previous experiences and knowledge of single-user systems to serve their clients.

A group of companies of contract logistics offers added services to their clients to promote their work. These services include coordinating operational services, improving traditional logistics services and providing polished services, orienting and educating customers on the global market and the international business scene before delving into new business ventures, and granting clients

the choice of outsourcing agents as a way of involving them in internal process and maximizing their experience [Haas, 2001; Kersten, Koch, 2007; Waibel et al., 2007; Klaus, 2007].

2.2 Small and Medium-Sized Enterprises

The abbreviation SMEs stands for Small and Medium Enterprises, businesses, or firms. The definitions for small and medium enterprises vary according to the economic situation of each country. A general definition of SMEs is “Non-subsidiary and independent firms employing a specific numerical range of employees” [Lambert et al., 1999; Stephan, 2002; Gebhardt, 2005; Pfohl, 2006a & Pfohl, 2006b; Damken, 2007; Gericke, 2009].

Generally speaking, a company that has 100 employees or fewer is regarded as a small business, whilst an enterprise with more than 100 employees and less than a thousand is considered medium-sized. Other categorizations regard small and medium businesses as those having less than 250 employees. Another classification divides businesses into micro-sized firms with fewer than 10 employees, small businesses employing between 10 to 49 employees, and medium-sized enterprises that have between 50 to 249 employees. More than 250 employees give the company a large enterprise status. According to the European Union (EU), less than 250 European employees constitute a medium-sized firm, while 50 employees and fewer form a small business. The term micro-business is used for firms that have fewer than ten employees.

In the United States of America, the volume of sales and the business sector mainly determine the size of the business, as stated by the U.S Small Business Administration (SBA, 2017). If an enterprise makes \$35.5 million in sales and has 1,500 employees or fewer, then it is considered a small business. As for non-governmental firms in the U.S.A, companies that earn less than \$7 million in sales and employ fewer than 500 employees are regarded as small businesses. According to the American Labour Statistics of the United States as of 2010, there were 27.9 million small businesses and 18,500 enterprises with 500 employees or more. Also, 99.7% of American companies belong to the small business category, as put by (SBA, 2017). This is in line with the studies of [Kosmider, 1994; Thomas, 1994; Damken, 2007; Weber et al., 2007; Large, 2009].

2.3 Practical Challenges in the Relationship between Logistic Providers and SMEs

Even though contract logistics companies offer services fulfilling the logistics needs of SMEs, compatibility challenges surface in the relationship between the two. Customizing services that meet the expectations of SMEs and distinguish the service providers requires companies to adopt long contracts to ensure customer satisfaction. The long duration of these contracts stirs doubts in small and medium enterprises.

In the same context, the volume of annual sales turnover is another important factor in the relationship between enterprises and service providers. To guarantee a clear and fair contract between small and medium businesses and logistics service providers, along with the best-customized service tailored for the client, the volume of annual sales turnover should be specified in contract negotiations. This factor differs from one country and one economy to the other [Buse, 1997; Gudehus, 2007; Klaus et al., 2010]. For the investments to bring profits, contracts have to last a specific amount of time and achieve a certain level of annual sales turnover. Investors and service providers ensure that their investments will continue to bring in profits even after the end of the contract, or in case of non-renewal, explain why growth rates in logistics markets vary from one place and one market to the other.

Moreover, growth rates and lasting profits are positive improvements for markets but they do not eliminate the negative impact the relationship between SMEs and service providers has on the latter. Contract non-renewal and contract terminations due to bankruptcy, drop in sales, or instability in demand are two common problems service providers face in their business conduct with small and medium-sized enterprises. According to Wilding and Juriado (2004), 74% of companies have failed to renew their contract with logistic companies for one time at least (2004). Since contract termination is a serious problem facing both clients and service providers, clearer and more just terms of termination are needed. Post-termination investigations should also be conducted to ensure transparency and future business interactions. A professional and business-like end of the contract leaves both parties satisfied and willing to engage in future relationships, and it also minimize the losses for both [Haas, 2001; Halinen & Tähtinen, 2002; Wilding & Juriado, 2004; Arnold, 2007; Drodofsky, 2011].

SMEs are the backbone of national economies across the continents. They constitute more than 90% of local businesses in each country, making their involvement

in local economies significantly contribute to the Gross National Product (GPN). These enterprises provide many jobs and take an active part in employment and economic growth. Logistics service providers are expected, therefore, to provide high-quality, customized, practical, and productive services to guarantee improvement and development in performance, annual sales, economic growth, and company survival on the national and international economic scenes.

3. METHODS

3.1 *Participants*

A sample consisting of managers and the managerial staff was randomly selected from a group of Jordanian trading companies in Amman, the capital of Jordan. Thirty employees from each of the five companies agreeing to participate in this study were selected based on the payroll.

3.2 *Research Design & Measures*

A questionnaire is commonly used by field studies as the most appropriate mean for data collection. Therefore, it was used to collect the required data for the intended statistical analysis. Eight parts (except for the sample characteristics) of the 32 statements questionnaire were designed, formulated, academically referred to, and tested before being distributed to the participants. One part of the questionnaire was assigned to measure each one of the eight dependent and independent variables adopted by this study. 150 questionnaires were distributed, and 121 were returned. Moreover, among the questionnaires used for the intended statistical analysis, only 113 were correctly filled. Table (2) below illustrates the main characteristics of the study sample. Tables (2-8) including figures and information were taken from the questionnaires distributed, collected, and analysed for this study.

Tab. 2. Sample Characteristics

Category	Frequency	Percent
Gender		
Male	100	88.50
Female	13	11.50
Age		
Less Than 25 Years	34	30.10

25-44 Years	77	68.10
45-64 Years	2	1.80
Social states		
Single	73	64.60
Married	40	35.40
Educational Achievement		
Tawjihi (secondary school final exam)	18	15.90
Bachelor's Degree	83	73.50
Master's Degree	12	10.60
Number of Years of Experience		
3 Years & Less	50	44.20
4-10	43	38.10
11-15	13	11.50
16-20	7	6.20

Source: own study

As shown in Tab. 2, the characteristics of the sample consisted of 100 males (88.5%) and 13 females (11.5%). The majority of respondents 77 (68.1%) were in ages 25-44, 34 (30.1%) in ages less than 25, and 2 (1.8%) in ages 45-64. Besides, the sample includes 73 single (64.6%) and 40 married (35.4%). Most of the study sample of 83 respondents (73.5%) held a Bachelor's degree, 18 respondents (15.9%) with a Tawjihi degree, and 12 (10.6%) with a Master's degree. Concerning the number of years of experience, the study sample was divided as follows: 50 (44.2%) whose experiences were 3 years and less, 43 (38.1%) were between 4 and 10, 13 (11.5%) were between 11 and 15 years, and 7(6.2%) were between 16 and 20 years.

3.3 Variables of the Study

Independent variables consist of the most common four logistics services usually provided through 3PLs. These are:

1. Delivery service (DC),
2. Supplying service (SS),
3. Warehousing service (WS), and
4. Transportation services (TS).

On the other hand, dependent variables consist of the following key four performance indicators:

1. Increasing sales (IS),
2. Ability to cost-saving (ACS),
3. Enhancing customer satisfaction (ECS), and
4. Consolidating the company's competitive advantage (CCA).

3.4 Measures

Apart from the part assigned to specify the main characteristics of the study sample, each variable of the eight variables adopted by this study (4 Independent and 4 dependent variables) was measured by 4 of the 32 statements of the questionnaire using a 5-Point Likert Scale measurement. To ensure the reliability and validity of the questionnaire as a relevant instrument for measuring the variables of the study, factor analysis, KMO, and Cronbach Alpha tests were carried out. Tab. (3) illustrates factor analysis, KMO, and Cronbach Alpha.

Tab. 3. Factor Analysis Loadings, KMO, and Cronbach Alpha

Item	Factor 1	KMO	Cronbach Alpha
DC1	0.939	0.697	0.967
DC2	0.957		
DC3	0.959		
DC4	0.967		
SS1	0.896	0.742	0.926
SS2	0.915		
SS3	0.885		
SS4	0.925		
WS1	0.908	0.908	0.903
WS2	0.739		
WS3	0.943		
WS4	0.921		
TS1	0.885	0.908	0.925
TS2	0.960		
TS3	0.956		
TS4	0.822		
IS1	0.902	0.838	0.910
IS2	0.866		
IS3	0.929		
IS4	0.860		

ACS1	0.836	0.878	0.800
ACS2	0.598		
ACS3	0.906		
ACS4	0.829		
ECS1	0.889	0.790	0.932
ECS2	0.921		
ECS3	0.930		
ECS4	0.911		
CCA1	0.878	0.764	0.918
CCA2	0.876		
CCA3	0.920		
CCA4	0.912		

Source: own study

As shown in Tab. 3, the factor loadings of all items were greater than 30%, indicating those questionnaire items are adequate for analysis. Cronbach's alpha is a measure of internal consistency, that is, how closely a set of items is related as a group. Cronbach's alpha should be 0.70 or higher to be considered acceptable. As gleaned from Tab. 3, it is noticed all items above 0.800. Regarding KMO, it is a statistic value indicating the proportion of variation in adopted variables that may be caused by underlying factors. High values (near 1.0) generally suggest that factor analysis may be useful for the collected data. If the value is less than 0.50, the results of the factor analysis are probably not very useful. Tab. 3 shows that KMO for all items is between 0.697 and 0.908, and this means all items are useful for the adopted data.

3.5 Procedures

Four dependent variables (the most common four logistics services usually provided through 3PLs) and four independent variables (four key performance indicators) were specified and adopted based on the available literature and previous studies. Correlation and regression statistical tests were conducted to examine the relationships and test the impacts of independent variables on the dependent variables.

Tab. 4. Variables Correlations

	DC	SS	WS	TS	IS	ACS	ESC	CCA
DC	1	0.645	0.541	0.541	0.467	0.598	0.429	0.426
SS	0.645	1	0.553	0.553	0.563	0.593	0.544	0.477

WS	0.541	0.553	1	1	0.751	0.810	0.606	0.586
TS	0.541	0.553	1	1	0.751	0.810	0.606	0.586
IS	0.467	0.563	0.751	0.751	1	0.728	0.621	0.549
ACS	0.598	0.593	0.810	0.810	0.728	1	0.570	0.583
ESC	0.429	0.544	0.606	0.606	0.621	0.570	1	0.819
CCA	0.426	0.477	0.586	0.586	0.549	0.583	0.819	1

Source: own study

Tab. (4) refers to the matrix of correlations between the study variables. All the relationships between the variables were statistically significant at the level 0.01. This result indicated that the relationships between the study variables were all positive, and all were statistically significant. As for the highest correlation value, it was between WS and TS, as the value of the Pearson correlation coefficient was 1, and the lowest value in the relationships between the study variables was the relationship between DC and CCA, as the value of the Pearson correlation coefficient reached 0.426.

4. HYPOTHESES TESTING

Tab. 5. Impact of Logistics Services on Increasing Sales

	R	R ²	B	T	F	Sig.
DC	0.773	0.597	-0.039-	-0.448-	39.969	0.655
SS			0.211	2.377		0.019
WS			0.048	0.531		0.596
TS			0.628	7.864		0.0000

Source: own study

Moreover, multiple regression tests were used to find out the impact of logistics services on increasing sales in Jordanian companies. The results of the statistical analysis in Tab. 5 show a statistically significant effect of logistics services on increasing sales, where the correlation coefficient was 0.773, and the coefficient of determination (R²) was 0.597, meaning that an amount of 59.7% of the change in the level of increased sales resulting from a change in logistics services. The value of the regression factor was beta β was -0.039 for the delivery service, 0.211 for the supplying service, 0.048 for the warehousing service, and 0.628 for

the transportation services. The significance of this effect confirms the calculated F value, which is 39.969, indicating a function at a significant level (alpha less or equal to 0.05).

Tab. 6. Effect of Logistics Services on Ability of Cost-Saving

	R	R ²	B	T	F	Sig.
DC	0.839	0.703	0.187	2.481	63.979	0.015
SS			0.154	2.023		0.046
WS			-0.82	-1.070		0.287
TS			0.671	9.806		0.000

Source: own study

Likewise, multiple regression tests were used to find out the impact of logistics services on cost-saving in Jordanian companies. The results of the statistical analysis in Tab. 6 show a statistically significant effect of logistics services on increasing sales, where the correlation coefficient was 0.839 and the coefficient of determination (R²) was 0.703, meaning that an amount of 70.3% of the change in the level of increased sales resulting from a change in logistics services. The value of the regression factor was beta β was 0.187 for the delivery service, 0.154 for the supplying service, -0.82 for the warehousing service, and 0.671 for the transportation services. The significance of this effect confirms the calculated F value, which is 63.979, indicating a function at a significant level (alpha less or equal to 0.05).

Tab. 7. Impact of Logistics Services on Enhancing Customer Satisfaction

	R	R ²	B	T	F	Sig.
DC	0.665	0.442	-0.052	-0.505	21.377	0.615
SS			0.254	2.432		0.017
WS			0.157	1.489		0.139
TS			0.402	4.284		0.000

Source: own study

Furthermore, multiple regression tests were used to determine the impact of logistics services on enhancing customer satisfaction in Jordanian companies. The results of the statistical analysis in Tab. 7 show a statistically significant impact of logistics services on increasing sales, where the correlation coefficient was 0.665, and the coefficient of determination (R²) was 0.442, meaning that an amount of 44.2% of

the change in the level of increased sales resulting from a change in logistics services. The value of the regression factor was beta β was -0.052 for the delivery service, 0.254 for the supplying service, 0.157 for the warehousing service, and 0.402 for the transportation services. The significance of this effect confirms the calculated F value, which is 21.377, indicating a function at a significant level (alpha less or equal to 0.05).

Tab. 8. Impact of Logistics Services on Consolidating the Company's Competitive Advantage

	R	R ²	B	T	F	Sig.
DC	0.616	0.380	0.067	0.616	16.514	0.539
SS			0.197	1.783		0.077
WS			-0.020	-0.182		0.856
TS			0.453	4.576		0.000

Source: own study

Additionally, multiple regression tests were used to identify the impact of logistics services on consolidating the company's competitive advantage in Jordanian companies. The findings of the statistical analysis in Tab. 8 show a statistically significant effect of logistics services on increasing sales, where the correlation coefficient was 0.616, and the coefficient of determination (R^2) was 0.380, meaning that an amount of 38% of the change in the level of increased sales resulting from a change in logistics services. The value of the regression factor was beta β was 0.067 for the delivery service, 0.197 for the supplying service, -0.020 for the warehousing service, and 0.453 for the transportation services. The significance of this effect confirms the calculated F value, which is 16.514, indicating a function at a significant level (alpha less or equal to 0.05).

5. DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

In a nutshell, the changing nature of our existing environment has added extra pressure on SMEs and large companies as they have to ensure a fast response to the changing and continually increasing customer needs. Logistic providers around the world are struggling to get new clients, therefore their ability to provide some new customized logistical services to attract those potential customers is a challenging task due to the highly changing nature of needs, desires, and the demand dominating the logistics market. The utilization of the available logistics

can help SMEs reduce the pressure that SME management is confronted with and assist these companies to introduce reliable value-added services to their clients.

In the same vein, the unreliable financial position experienced by the majority of the SMEs does not allow those companies to establish their own logistics departments. Therefore, the only alternative available for them is to outsource all or some of the required logistics. The outcomes of this study have suggested that outsourcing of logistical services such as delivering, supplying, warehousing, and transportation will save costs, increase sales, enhance customer satisfaction and consolidate the company's competitive advantage. It would be beneficial for all trading companies in general and SMEs in particular to outsource those types of logistical services. This suggestion seems to be very objective and logical as the logistics supplying companies possess all the necessary capacities, facilities, competencies, skills, and experiences. Importantly, it is necessary to mention that relying upon a third-party logistics provider, might be accompanied by some kind of risks and obstacles regarded as chronic difficulties. However, this situation most likely would temporarily dominate the starting period of outsourcing.

Given the above statistical results and discussion, the current study recommends reviewing all their provided services by the SMEs and classifying them into two categories; those which could be internally performed and those which could be outsourced. The decision to build internal logistic departments by SME management will be costly due to the considerable capital investment required. Therefore, it is rational and more economical for SMEs to outsource some specific logistics. In addition, adopting a strategy for outsourcing some specific logistics by SMEs will save costs, improve profit, increase sales, and enhance customer satisfaction. At last, the trading company's management is requested to build a supply-chain network with logistics companies that can improve the efficiency, effectiveness, and profitability of the parties. More importantly, the previous conclusions and recommendations were presented based on the analysis of this research carried out on a representative statistical sample. As put by the author, it seems their cognitive value would be higher if the author considered the impact of the situation caused by the COVID-19 pandemic on the issues described. Therefore, the author recommends further research on this issue, considering COVID-19.

REFERENCES

- [1] Hasliza A. H., Noor A. H., Ho, Th., Ramayah C. F., *The Outsourcing Dilemma on Decision to Outsource Among Small and Medium Enterprises in Malaysia*, "Global Business Review", 18 (2017)/2, pp. 348-364.
- [2] Al Fatayerji H., *NewCo.Contract Logistics. Investment Proposal* [Online-Slideshare] – <https://www.slideshare.net/HashimAlFatayerji/new-co-contract-logistics> [Access on: 10.05.2018]
- [3] Al Qirim Nabeel A. Y., *The Strategic Outsourcing Decision of IT and eCommerce: The Case of Small Businesses in New Zealand*, "Journal of Information Technology Case and Application Research", 5 (2003)/3, pp. 32-56.
- [4] Arnold U., *Beendigung von Lieferantenbeziehungen in Unternehmensnetzwerken*, [in:] Garcia Sanz F. J., Semmler K., Walther J. (hg.), *Die Automobilindustrie auf dem Weg zur globalen Netzwerkkompetenz. Effiziente und flexible Supply Chains erfolgreich gestalten*, Axel Springer Verlag, Berlin 2007, pp. 215-229.
- [5] Baumgarten H., Kasiske F., Zadek H., *Logistik-Dienstleister – Quo vadis? – Stellenwert der Fourth Logistics Provider (4PL)*, "Logistik Management", 4 (2002)/1, pp. 27-40.
- [6] Bitzer K., *Der mittelständische Unternehmer – einige betriebssoziologische Aspekte*, Dissertation, Berlin 1977.
- [7] Buse H. P., *Kooperationen*, [in:] Pfohl H. C., (hg.), *Betriebswirtschaftslehre der Mittel- und Kleinbetriebe: Größenspezifische Probleme und Möglichkeiten zu ihrer Lösung*, 3. Aufl., Erich Schmidt Verlag, Berlin 1997.
- [8] Damken N., *Corporate Governance in mittelständischen Kapitalgesellschaften – Bedeutung der Business Judgement Rule und der D&O-Versicherung für Manager im Mittelstand nach der Novellierung des §93 AktG durch das UMAG*, Oldenburger Beiträge zum Zivil- und Wirtschaftsrecht, Universität Oldenburg Verlag, Oldenburg 2007.
- [9] Deloitte Touche T., *Core competences and strategic outsourcing: Achieving competitive advantage*, 2005.
- [10] Donkor G., Donko R. J., Kankam-Kwarteng C., Aidoo E., *Innovative capability, strategic goals and financial performance of SMEs in Ghana*, "Asia Pacific Journal of Innovation and Entrepreneurship", 12 (2018)/2, pp. 238-254.
- [11] Drodofsky M., *Beendigung von Kontraktlogistikbeziehungen - Dienstleisterperspektiven*, [in:] Sucky E., Asdecker B., Dobhan A., Haas S., Wiese J. (hg.), *Logistikmanagement: Herausforderungen, Chancen und Lösungen, Schriftenreihe Logistik und Supply Chain Management*, vol. II, University of Bamberg Press, Bamberg 2011, pp. 233-252.

- [12] Frohn J., *Mehrwertleistungen in der Kontraktlogistik*, Shaker Verlag, Aachen 2006.
- [13] Gebhardt A., *Fremdgehen lohnt sich*, "Logistik heute", (2005)/6, pp. 46-47.
- [14] Gericke J., *Unterstützung von Logistik-Outsourcing Entscheidungen in mittelständisch strukturierten Unternehmen*, 2. Aufl., Taunusstein, Driesen 2009.
- [15] Gudehus T., *Logistik 2: Netzwerke, Systeme und Lieferketten*, 3. Aufl., Axel Springer Verlag, Berlin-Heidelberg 2007.
- [16] Haas S., *Kontraktlogistik für mittelständische Unternehmen, Lehrstuhl für Produktion und Logistik*, Dissertation, Otto-Friedrich-Universität Bamberg, Bamberg 2011.
- [17] Halinen A., Tähtinen J., (2002): *A process theory of relationship ending*, "Journal of Service Industry Management", 13 (2002)/2, pp. 163-180.
- [18] Halldorsson A., Skjott-Larsen T., *Developing logistics competences through third party logistics relationships*, "International Journal of Operations & Production Management", 24 (2004)/2, pp. 192-206.
- [19] Skiffington H., Akoorie M. E., Paresha S., Glyndwr J., *Production outsourcing offshore in the New Zealand printing, publishing and packaging industries*, "Strategic Outsourcing: An International Journal", 6 (2013)/2, pp. 116-137.
- [20] Isermann H., *Grundlagen eines systemorientierten Logistikmanagements*, [in:] Isermann H. (hg), *Logistik – Gestaltung von Logistiksystemen*, 2. Aufl., Verlag Moderne Industrie, Landsberg/Lech 1998, pp. 21-60.
- [21] Kersten W., Koch J., *Motive für das Outsourcing komplexer Logistikdienstleistungen*, [in:] Stölzle W., Weber J., Hofmann E., Wallenburg C. M. (hg.), *Handbuch Kontraktlogistik - Management komplexer Logistikdienstleistungen*, Wiley-VCH, Weinheim 2007, pp. 115-132.
- [22] Kille Ch., *KEP-Märkte und Dienste*, [in:] Klaus P., Krieger W. (hg.), *Gabler-Lexikon Logistik: Management logistischer Netzwerke und Flüsse*, 4. Aufl., Axel Springer Verlag, Wiesbaden 2008.
- [23] Klaus P., Hartmann E., Kille Ch., *Top 100 der Logistik: Marktgrößen, Marktsegmente und Marktführer in der Logistikdienstleistungswirtschaft*, DVV Media Group, Deutscher Verkehrsverlag, Hamburg 2010.
- [24] Klaus P., *Markt für Kontraktlogistik. Volumen und Entwicklungen in Europa*, [in:] Stölzle W., Weber J., Hofmann E., Wallenburg C. M. (hg.), *Handbuch Kontraktlogistik. Management komplexer Logistikdienstleistungen*, Wiley-VCH, Weinheim 2007, pp. 89-111.
- [25] Kille Ch., *Kontraktlogistik*, [in:] *Gabler-Lexikon Logistik: Management logistischer Netzwerke und Flüsse*, 4. Aufl., Axel Springer Verlag, Wiesbaden 2008.

- [26] Kosmider A., *Controlling im Mittelstand: eine Untersuchung der Gestaltung und Anwendung des Controllings in mittelständischen Industrieunternehmen*, 2. Aufl., Schäffer-Poeschel Verlag, Stuttgart 1994.
- [27] Kummer S., *Logistik im Mittelstand – Stand und Kontextfaktoren der Logistik in mittelständischen Unternehmen*, Schäffer-Poeschel Verlag, Stuttgart 1992.
- [28] Lambert D. M., Emmelhainz M. A., Gardner J. T., *Building successful logistics partnerships*, “Journal of Business Logistics”, 20 (1999)/1, pp. 165-181.
- [29] Langley J. C., Allen G. R., Tyndall G. R., *Third-Party Logistics Study, Results and Findings of the 7th Annual Study*, InfoSys Consulting, 2002.
- [30] Large R., *Steuerung in Kontraktlogistikbeziehungen*, “Controlling“, 21 (2009)/8-9, pp. 444-449.
- [31] *Logistics Services (2018): 8 Reasons to outsource Logistics services* – <https://www.flatworldsolutions.com/logistics/articles/outsource-logistics-services-8-reasons.php> [Access on: 03.05.2018].
- [32] Mageto J., Prinsloo G., Luke R., *Logistics outsourcing and performance of manufacturing small and medium-sized enterprises in Nairobi*, “Southern African Journal of Entrepreneurship and Small Business Management”, 10 (2018)/1, pp. 1-11.
- [33] McKinnon A., Forster M., *European Logistical and Supply Chain Trends: 1999-2005. TRILOGEurope: a project of Directorate-General VII (Transport) of the European Commission undertaken in support of the Organisation for Economic Co-operation and Development's (OECD) Trilateral Logistics study*, Heriot-Watt University, Edinburgh 2000.
- [34] Mol M. J., *Outsourcing, Supplier Relations and Internationalization: Global Sourcing Strategy as a Chinese Puzzle*, Rotterdam School of Management, Erasmus University Rotterdam 2001.
- [35] Ogorelc A., Zelenika R., *Towards Outsourcing of Logistics Activities in Manufacturing Firms*, [in:] David M. (ed.), *ICTS 2001: Zbornik referatov = Proceedings*, Fakulteta za pomorstvo in promet, Portorož 2002, pp. 50-60.
- [36] Ogorelc A., *Outsourcing of Transportation and Logistics services*, “Promet – Traffic&Transportation”, 19 (2007)/6, pp. 371-380.
- [37] Pharma Logistics. *The top 25 global logistics providers. A rundown of the top logistics organizations around the world.* <https://www.pharmalogisticsiq.com/logistics/articles/a-who-s-who-in-global-logistics-the-top-25-global>, 2022.
- [38] Pfohl, H.-Ch., *Logistik*, [in:] Pfohl H. C. (hg.), *Betriebswirtschaftslehre der Mittel- und Kleinbetriebe. Größenspezifische Probleme und Möglichkeiten zu ihrer Lösung*, 4. Aufl., Erich Schmidt Verlag, Berlin 2006, pp. 269-300 (Pfohl 2006a).

- [39] Pfohl H.-Ch., *Grundlagen: Abgrenzung der Klein- und Mittelbetriebe von Großbetrieben*, [in:] Pfohl H. C. (hg.), *Betriebswirtschaftslehre der Mittel- und Kleinbetriebe. Größenspezifische Probleme und Möglichkeiten zu ihrer Lösung*, 4. Aufl., Erich Schmidt Verlag, Berlin 2006, pp. 11-36 (Pfohl 2006b).
- [40] Pfohl H.-Ch. Buse H. P., *Inter-organizational logistics systems in flexible production networks*, "International Journal of Physical Distribution & Logistics Management", 30 (2000)/5, pp. 388-408.
- [41] Prahalad C. K., Hamel G., (1990): *The Core Competency of the Corporation*, "Harvard Business Review", (1990)/5-6, pp. 79-91.
- [42] Scholz-Reiter B., Toonen Ch., Windt K., *Logistikdienstleistungen*, [in:] Arnold D., Isermann H., Kuhn A., Tempelmeier H., Furmans K. (hg.), *Handbuch Logistik*, 3. Aufl., Axel Springer Verlag, Berlin-Heidelberg 2008, pp. 581-610.
- [43] Schwarz G., *Outsourcing – Eine Einführung*, [in:] Hermes H.-J., Schwarz G. (hg.), *Outsourcing*, Rudolf Haufe Verlag, München 2005.
- [44] Stephan P., *Nachfolge in mittelständischen Familienunternehmen. Handlungsempfehlungen aus Sicht der Unternehmensführung*, Deutscher Universitätsverlag, Wiesbaden 2002.
- [45] Straube F., Frohn J., (2007): *Kundennutzen durch logistische Mehrwertleistungen*, [in:] Stölzle W., Weber J., Hofmann E., Wallenburg C. M. (hg.), *Handbuch Kontraktlogistik. Management komplexer Logistikdienstleistungen*, Wiley-VCH, Weinheim 2007, pp. 181-198.
- [46] Sucky E., *Koordination in Supply Chains. Spieltheoretische Ansätze zur Ermittlung integrierter Bestell- und Produktionspolitiken*, Deutscher Universitätsverlag, Wiesbaden 2004.
- [47] Taponen S., Kauppi K., *Service outsourcing decisions – a process framework.*, "Journal of Global Operations and Strategic Sourcing", 13 (2020) /2, pp. 171-194.
- [48] Thomas K.-G., *Die mittelständische Unternehmung im Entwicklungsprozess*, Berlin 1994.
- [49] Waibel F., Herr S., Schmidt N., „Ramp up“ *in der Kontraktlogistik*, Fraunhofer Verlag, Stuttgart 2007.
- [50] Weber J., Stölzle W., Wallenburg C. M., Hofmann, E., (2007): *Einführung in das Management der Kontraktlogistik*, [in:] Stölzle W., Weber J., Hofmann E., Wallenburg C. M. (hg.), *Handbuch Kontraktlogistik. Management komplexer Logistikdienstleistungen*, Wiley-VCH, Weinheim 2007, pp. 35-54.
- [51] Wilding R., Juriado R., *Customer perceptions on logistics outsourcing in the European consumer goods industry*, "International Journal of Physical Distribution & Logistics Management", 34 (2004)/8, pp. 628-644.

- [52] Wu P., Yao X., Muhammad S., *The effect of female participation in top management teams on the growth performance of small and medium-sized enterprises (SMEs): evidence from a panel-data analysis in Chinese-listed SMEs*, "Asia Pacific Journal of Innovation and Entrepreneurship", 11 (2017)/1, pp. 108-119.
- [53] Zadek H., *Struktur des Logistik-Dienstleistungsmarktes*, [in:] Baumgarten H., Darkow I., Zadek H. (hg.), *Supply Chain Steuerung und Services: Logistik-Dienstleister managen globale Netzwerke - Best practices*, Axel Springer Verlag, Berlin-Heidelberg 2004, pp. 15-28.

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