# EXPLAINING THE RELATIONSHIP BETWEEN FOCUS ON INFORMATION TECHNOLOGY AND COMPETITIVE ADVANTAGE (CASE STUDY: THIRD PARTY LOGISTICS COMPANY (3PL) ISACO AND SAIPATRAILER)

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#### ABSTRACTT

Transportation comprises of key area where logistics companies can truly differentiate themselves and prove with, reduce costs, and build real competitive advantage. High growth and increasing traffic and transport finished vehicles, a significant impact on how organize the flow of parts to automakers and agencies have As a result, the automakers to improve its position as a highly responsive, with minimal costs, the outsourcing of their logistics processes. Due to the globalization, the competition has demanded the customer should get the right material, at the right time, at the right point and in the right condition at the lowest cost. Outsourcing logistics functions enables a company to focus on its core competencies. This paper is the result of field research to determine the effectiveness of the logistics industry in Iran and focuses on information technology deals the transport vehicle and parts sales deals, first indicators used in the model include: IT focuses, IT Valence, IT Competency, IT Managerial Commitment, IT Resource Commitment and competitive advantage identified. Data collected by questionnaires from managers and experts have been towing companies ISACO and Saipa trailer hypotheses using structural equation methods and software has been analyzed Amos Results show, focusing on information technology now has significant impacts on logistics and transport. As a result the impact of, IT valence, IT competency and IT Managerial Commitment analytics to gain competitive advantage was not approved, but the rest of the factors were confirmed.

*Keywords:* Logistics outsourcing, Third-party logistics companies, Information technology and Competitive advantage

#### INTRODUCTION

Given the current use of information technology, along with a variety of information systems that are designed for different needs, has expanded the focus of this study, the logistics industry and the impact of deals Of information technology to achieve competitive advantage are discussed Since many studies to identify important factors that contribute to competitive advantage Also, methods have been made to maintain the competitive advantage of information technology to be named as the source of competitive advantage (Porter and Miller,1985). In today's competitive scenario, effective and efficient supply chain management is increasingly dependent on the capabilities and performance of third-party logistics companies The changing role of releasing information technology to the third party logistics companies in the supply chain helps (Evangelista, 2012), and became a very good opportunity to improve logistics

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efficiency, effectiveness and flexibility of the company is to achieve a significant competitive advantage (Wang *et al.*, 2008). Supply chain management (SCM) is a strategic approach that emphasizes competitive advantage through increased operational efficiency and market responsiveness from production and distribution processes into the hands of consumers(Noordin *et al.*, 2014). In the automotive industry supply chain is a complex type, every image, regardless of the logistics supply chain management practice, would be incomplete without information technology to achieve an effective and efficient logistics system, it is not possible. Therefore, with increasing global competition and higher customer expectations, many companies' logistics activities to third party logistic companies bent to.

The main goal of this paper focuses on the impact of information technology and systems to achieve competitive advantages transport vehicles and spare parts, after sales of IT valence indicators IT Competency, resource commitment, management commitment to information technology Due to the growth in traffic and transport finished vehicles to dealers and the need for information technology in logistics industry As one of the effective tools are needed for all processes in different companies, in this article we will examine the logistics industry in Iran.

## Review of Basic Theoretical Grounds taken

#### **Outsource Logistics Activities**

If we define logistics, supply chain processes is the phenomenon of Planning, implementing and controlling the efficient flow of goods and materials, including services and related information from point of origin to point of destination, has been to meet customer needs.

Logistics has become a strategic factor in the supply chains provides a unique competitive advantage The main purpose of supply of services or products to customers at the right time, in the right amounts, the right price and the right location (Lin and Ho, 2009).

Logistics have existed since ancient time but not be called so where invention of wheel was a starting point of logistics which allowed people to move raw material as well as finished goods. Population began moving from rural to urban areas and to business centres. No longer did people live near production centres, the concept of starting business near to the raw material availability location was replaced due to the comfort of shifting the required material from one place to another with the help of research done on the logistics related problems, nor did production take place near residence centres (Neeraja *et al.*, 2014).

Today's logistics market is highly competitive; many companies increase the global market share and benefit from the advantages of producing more and better resources (Sakchutchawan *et al.*, 2011). Automobile business of business space in the back Bypass initial stage of rapid growth and market saturation. One of the common strategies of firms in this case, cut costs to maintain profits, the first place to start since it can reduce costs, logistics and supply chain organizations.

While many organizations are seeking to manage their logistics operations strategically, they realize that competitive advantage is not achieved as they lack the core competencies (Sadiq and Al - Abdali, 2005). According to Kun Cho and colleagues in 2008, Strategic use of logistics capability for competitive advantage is a major concern for many firms. Logistics capability can make major contributions toward the achievement of superior performance and sustained competitive advantage. As a result, organizations are increasingly looking to outsource their logistics activities (Sadiq and Al- Abdali, 2005).

Logistics outsourcing has become a rapidly expanding source of competitive advantage and logistics cost savings. Due to growing pressures to reduce costs and provide better service, an increasing number of

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logistics users have begun to outsource their logistics activities to 3PL firms (Rabinovich *et al.*, 1999). Therefore an unprecedented increase in logistics outsourcing or third-party logistics providers (3PL's) in the past few years, firms' logistics activities have been stretched around the globe (Sakchutchawan *et al.*, 2011).

Since the Third party logistics service providers (LSP) and carriers as part of that chain provides product, service and information flow among the parties in that chain. Hence, in order to provide seamless service effectively and efficiently, logistics and transportation services should be integrated to the supply chain with effective and efficient IT, development of IT has made the integration of supply chains become possible, so that the links between parties in the chain and the third parties are easier to establish (Saatçioglu *et al.*, 2009).

Given the above, the development of third party logistics companies in the country to be named as one of the requirements according to Lieb and Bentz (2004), outsourcing of logistics activities to third-party logistics companies to increase the efficiency and effectiveness of specialist logistics companies help Reducing operating costs and improving customer service and flexibility simultaneously occurs Moreover, in general, can have important effects on the distribution system must be reformed The importance of logistics and infrastructure in the country can be increased a hundredfold, because the country geographically, is a strategic area .The ability to become a logistic link between Asia and Europe on the one hand, and the link between Central Asian countries and the other is the open water. This position is considered a benefit solely in the right place; it can create a quantum leap in the economy. On the other hand, if the logistics industry service standard, the cost of many goods is reduced, thus, third-party logistics industry, working with companies in the field of logistics can reduce operating costs (Tseng *et al.*, 2005).

## IT and Competitive Advantage

The concept of competitive advantage is the extent to which an organization is able to create a defensible position over its competitors. It comprises capabilities that allow an organization to differentiate itself from its competitors and is an outcome of critical management decisions (Li *et al.*, 2006).

So far, many studies to identify important factors that contribute to competitive advantage Also, the departments have been maintaining competitive advantage, Anderson believed that IT could provide a competitive advantage for an organization and its competitive position in the market to improve (Anderson, 2001).

According Dehning and Stratopoulos, Information technology (IT) has been asserted to be a source of sustainable competitive advantage. Empirical evidence has shown that IT can improve a company's performance and competitive position (2003). Porter believes and miler (1985) Information technology changes the rules of the competition in three ways (P 7): Industry restructuring and changes the competition rules, create competitive advantage by offering new ways to overcome rivals and the information revolution, expanding businesses, even the activities of the company.

## Competitive Advantage in Third-party Logistics Companies

From a strategic perspective, IT may promote advantages in cost leadership, differentiation, or focusing (Vargas, 2003). Although competitive advantages are broadly expressed in terms of low costs, flexibility, quality, and delivery, they have been categorized into three dimensions in 3PL settings, cost advantage, service variety advantage, and service quality advantage (Lai *et al.*, 2006).

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### Focus on Information Technology

The importance of information technology in the past decade has been remarkable. This technology was paid more attention since the 1980s and its first organizational functions were in the automating official and productive jobs and performing routine tasks. Using intra organizational networks and internet, information technology has improved intra organizational communications through intranet and extranet communications (Talebnejad, 2008).

Since the mid 80's was a strategic impact of information technology. Following the trend, researchers started to focus on integration between information technology professionals and business managers in generating information technology capability and effective utilization. Majority of the researchers in resource-based view suggested the integration of human factor with information technology in generating sustainable competitive advantage (Ong, 2008). Today, information technology is central to solving some of the most pressing challenges in business, third party logistics including transportation, supply chain integration, optimization and increase transparency in the flow of goods and information, and as a capability, a vital precondition for firms supply chain relationships provides. Said Esper and colleagues (2010), which is widely used for more than 20 years of information technology is a vital tool for logistics and supply chain organizations. Basic concepts of information technology application independent systems to improve quality or productivity focused. Supply chain management has been identified (Esper *et al.*, 2010).

## The Impacts of IT Focus on Outsourcing Logistics Activities and Transport

One of the key factors for competitive advantage in logistics and transportation logistics of the system is that it is important for international trade and commerce. Information technology effectively to support the logistics and transport process is essential. Information Technology Logistics helps automate routine activities, thereby enabling managers to focus on strategic issues and key competencies (Saatçioglu *et al.*, 2009; Lai *et al.*, 2006).

IT has long played a role in creating competitive advantage due to Sustainable is known logistics companies (Barney, 1991). Some studies have reported the effectiveness of information technology, logistics, efficiency, productivity, flexibility, cost and quality of services can improve. So IT has the potential to achieve success, Logistics and Logistics helps companies improve their competitive advantage (Saatçioglu *et al.*, 2009).

According Sakchutchawan and colleagues, some scholars stated that the logistics of how companies can effectively use technology to gain competitive advantage through automated systems further evidence was provided that firms innovating through the development of IT capabilities can positively influence overall logistics competency (Sakchutchawan *et al.*, 2011).

The move towards outsourcing companies are more logistical issues, interactions and relationships with logistics service companies will be more and in terms of services to promote and facilitate greater cooperation is needed. The most popular use of the IT in supply chains is in the management of transport. Transportation typically is the highest cost component in a supply chain (Fasanghari *et al.*, 2008).

#### Focusing on the Effects of Information Technology to Achieve Competitive Advantage

This paper focuses on the impact of IT and achieve competitive advantages of the four variables are used Intermediate role between a focus on information technology to achieve competitive advantage Kappa logistics companies play, these variables are as follows:

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## IT Valence

Logistics is an important variable to measure in the field of information technology is used by management, for example, Lai and colleagues in 2006, the IT Valence and IT commitment as important indicators mentioned information. IT valence is a reflection of top management's beliefs regarding IT, which serve as powerful signals to the managerial community about the importance placed on IT. Through these beliefs, the firm can offer guidance to managers about the opportunities and risks in IT applications in the firm. Tippins and Sohi (2003) opinion, the value of information technology increases the awareness of the development of knowledge about customers and markets, and other factors affecting the Company will be used (Tippins and Sohi, 2003). Therefore, we hypothesize the following:

H1: IT focus has a positive impact on increasing the IT Valence.

## IT Competency

Various advances in information technology Competencies, the industry faces over the past decade has transformed rapidly. Adoption and implementation of information technology in ways that are distinct competitive position in the company and provides supply chain. Given the increasing importance of information in today's global marketplace, achieving competence with regard to the tools and processes used to manage information has taken on a new urgency (Tippins and Sohi, 2003). Tippins and Sohi defined IT competency as, "the extent to which a firm is knowledgeable about and effectively utilizes IT to manage information within a firm" and IT competency consists of three components: IT knowledge is, "the extent to which a firm utilizes IT to manage market and customer information."; and IT operation is, "the extent to which a firm utilizes IT to manage market and customer information."; and IT objects represent, "computer based hardware, software, and support personnel".

The key enablers of inter organizational systems (IOS) is telecommunications and IT systems. According to Handfield and Ernest (1999), appropriate use of IOS provides decision makers with timely access to all required information, in an appropriate format, from any location within the supply chain. From the IOS perspective; IT is the main tool for integrating, coordinating and controlling the actors in the supply chain (Saatçioglu *et al.*, 2009).

And given that the system of three fundamental role in any organization are responsible for the following: supporting business operations, managerial decision making, and strategic competitive advantage (Saatçioglu *et al.*, 2009), Combination of information technology knowledge of the entrepreneur, willingness to utilize information technology for firm's operations and strategic, as well as willingness to invest in information technology facilities are able create a set of co-specialized resources. This co-specialized set of information technology competence is able to create resource that is valuable, rare, imperfectly imitate, and imperfectly substitute (Brney, 1991). Thus, this will enable firm to enjoy sustainable competitive advantage in the long run (Ong, 2008). Therefore, we hypothesize the following: H2: IT focus has a positive impact on increasing the IT Competency.

#### IT commitment

Department of Information Technology services and activities should be expressed in such a way that the information technology business commitment to the organization (Luftman, 2000). IT commitment defines the effort committed to IT improvement, including not only resource commitment, such as budget, equipment, and personnel, but also managerial commitment, such as the involvement of top management (Lai *et al.*, 2006).

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#### IT Managerial Commitment

In both information technology and business management support for participation and success in implementing information technology is vital. Management commitment is clearly a key factor which must be present before initiating an implementation process, ie management commitment is a prerequisite (Hansson *et al.*, 2003). Top management commitment becomes a reality when a manager of a company or division accepts the responsibility for the successful implementation of the business plan (Keramati and Azadeh, 2007). According to Lai and colleagues in 2006, management commitment plays a critical role in achieving a sustainable competitive advantage.

Investment in information technology and information systems has a positive impact on firm performance when top management has a high commitment. In other words, when top management commitment is high, the likelihood that the implementation of the investment made will succeed and subsequently result in a positive impact on the competitiveness of the organization (Abdulai *et al.*, 2012).

According to Gunasekaran and Ngai (2004) Implementation of IT in SCM requires a project management approach with the right team for the planning and implementation of IT projects. Moral support, financial and technical management for the implementation of information technology in the supply chain is essential. Involvement of top management in strategic decision-making is important. Top management support is essential in order to provide moral support as well as the financial and technical support for the implementation of IT for achieving SCM. Also according researches.

IT helps automate routine logistics activities, thus enabling managers to focus on strategic issues and core competencies (Saatçioglu *et al.*, 2009; Lai *et al.*, 2006). Therefore the following hypothesis is formulated: H3: IT focus has a positive impact on increasing the IT Managerial Commitment.

#### IT Resource Commitment

Resources available factors that are owned and controlled by the company and change, including financial, physical, human, technological, and organizational resources, such as enlightenment. According Skinner *et al.*, (2008) A primary challenge for businesses today is to direct the focus and level of resource commitment, Previous empirical research has confirmed the importance of resource commitment.

In the current competitive environment, the importance and magnitude of the need for better management of all organizational resources, especially the resources, information technology Requires a scale to measure the contribution of each source in the company because you have an appropriate internal resources Can make a positive impact on performance through focused resource strategies can be effectively implemented (Skinner *et al.*, 2008). Resource commitment involves the allocation of "tangible and intangible entities available to the firm. That enable it to produce efficiently and/or effectively a market offering that has value for some market segment". In other words, resource commitment deals with how valuable resources are allocated or targeted to do the most good (Glenn *et al.*, 2005). Widely among all IT resources, resources that exist broadly because individual resources can be easily duplicated across firms, but it is difficult to duplicate the combined resource configurations of technology, strategies, and business processes and their related synergies (Wang *et al.*, 2008). According to Lai and others (2006), resources can be configured appropriately only when IT strategies and business strategies are aligned. Alignment between a firm's IT and business strategies enables it to acquire, deploy, and leverage its IT investments and capabilities effectively in pursuit of its business strategies and in support of its business activities. Therefore, we hypothesize the following:

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## H4: IT focus has a positive impact on increasing the IT Resource Commitment.

## Barriers to Focus on the Effects of Information Technology

Research on Tipins and Sohi (2003), the possibility that IT can provide firms with a basis for competitive advantage has received a great deal of attention in recent years. While some claim that efficiencies created by investments in IT enhance firm profitability, others disagree .while as many as half of all companies worldwide are seeking to gain a competitive edge by spending more on IT, a clear understanding of how IT impacts strategy and critical performance outcomes remains unclear. While some firms achieve successful outcomes with regard to their information technology endeavors, others continue to fall victim to the technology productivity paradox. It's still not clear how information technology affects organizational processes and improve corporate performance will be. Researchers believe that IT resources alone are of little value or no value. It's theorization of the fifth hypothesis is rejected:

H5: Increase the IT Valence has a positive impact on the competitive advantage of third-party logistics companies.

Given that IT Competency has revealed that the company has a major advantage against competitors in aspects of strength and power In the field of information technology, software and hard ware to reduce weaknesses acceptable growth in information technology and IT operations can be significantly increased In the meantime, there is a view of the capabilities of information technology are being easily imitated by competitors are not effective to create a sustainable competitive advantage (Tipins and Sohi, 2003).

Research Perez-Lopez and Alegre) in 2012 showed that no direct relation exists between IT competency and firm performance and IT competency alone is not enough to create and maintain competitive advantages, companies with complementary strategic capabilities such as knowledge management As mediators between IT competency need to be able to function in a competitive market, the impact of IT competency on firm performance boost. It's theorization of the sixth hypothesis is rejected:

H6: Increase the IT Competency has a positive impact on the competitive advantage of third-party logistics companies.

According to studies, the trumpet, the strategic management of information technology in the enterprise, IT managers understands and plays a vital role in this regard. Integration of IT strategic planning processes for the entire organization, an important step in the strategic use of information in organizations (Taqva and Hajizadeh, 2010)

Based on studies of failure and lack of development of information technology in organizations Conflict between the CIO and the CEO of the conflict due to differences in technology and attitudinal and organizational issues Poor communication between management information systems and chief executive officer in the organization evidencing poor planning organization. The relationship between the two, which could lead to the strategic use of information systems, is mutual and strategic success (Haki, 2007).

According to Lai and colleagues in 2006 through a management commitment plays a critical role in achieving a sustainable competitive advantage. Therefore, it is essential that top managers' awareness of the benefits of information technology have And information systems managers must understand the organization's business objectives are to be able to identify timely opportunities and threats (p.1251), And given that one of the important factors that may help to create a competitive advantage in e-business top management commitment and support to the potential difference between success and failure in business

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investment electrical, Lack of awareness and understanding of the potential benefits and value to be gained by e-business investments can be a significant barrier for successful strategic e-business implementations (Troshani and Rao, 2007).

However, top management support and commitment alone is not enough but it is important for top management to understand the strategic role of IT staff, sufficient knowledge in the field of information technology and to provide adequate resources for the implementation of IT projects (Abdulai *et al.*, 2012). Thus, the negative orientation towards business executives electronic presentations negative attitude is likely to adversely affect management's commitment to the strategic use of information technology implementation and subsequent use of available resources puts (Troshani and Rao, 2007). This may result in rejection of the seventh hypothesis:

H7: Increase the IT Managerial Commitment has a positive impact on the competitive advantage of third-party logistics companies.

In general, resources that have the potential to create competitive advantage are suggested, have four characteristics. If they are valuable, rare, inimitable and irreplaceable they are. Barney in 1991, firm resources can only be a source of competitive advantage when they are valuable and when resources are most valuable companies in implementing strategies that improve the effectiveness and be able to make (p.106).

The resource-based view of the firm argues that efficient and effective resource deployment is the key to the development of sustainable competitive advantage (Huang *et al.*, 2012). According to Borek *et al.*, (2011) the potential of information technology and information systems and IT resources, there is a positive correlation This in turn will affect the company's performance, according to Lai (2006) IT resource commitment may help to improve productivity. Therefore, we hypothesize the following:

H8: Increase the IT Resource Commitment has a positive impact on the competitive advantage of third-party logistics companies.

**Conceptual Model of Research** 



Figure 1: Conceptual model of research

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#### **Research Hypothesis**

H1: IT focus has a positive impact on increasing the IT Valence.

H2: IT focus has a positive impact on increasing the IT Competency.

H3: IT focus has a positive impact on increasing the IT Managerial Commitment.

H4: IT focus has a positive impact on increasing the IT Resource Commitment.

H5: Increase the IT Valence has a positive impact on the competitive advantage of third-party logistics companies.

H6: Increase the IT Competency has a positive impact on the competitive advantage of third-party logistics companies.

H7: Increase the IT Managerial Commitment has a positive impact on the competitive advantage of third-party logistics companies.

H8: Increase the IT Resource Commitment has a positive impact on the competitive advantage of third-party logistics companies.

#### Methods of Research

The present study investigated the nature and objectives of the research include cause and effect - the application is considered, the population in this study consisted of managers and experts are towing companies ISACO and Saipa trailer. The sample for this research managers and experts who have been towing companies ISACO and Saipa trailer, And then finally 210 questionnaires distributed 184 questionnaires returned were calculated as the number of samples examined. Since this number is in the range of structural equation analysis was performed with the sample size.

In this study to measure the benefits of IT adoption questionnaire Lai *et al.*, (2006) have been used. The purpose of a questionnaire with 21 questions was prepared as described in Table 1.

Row	Variable in question	No	questions
	variable in question	questionnaire	
1	IT Focus	4-1	
2	Increase IT valence	7-5	
3	Increase IT Competency	11-8	
4	Increase IT Managerial Commitment	14-12	
5	Increase IT Resource Commitment	17-15	
6	Competitive advantage	21-18	

Table 1: Number of variables and questionnaire question	iestions
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In the present study, scale, scale is ordinal. Likert scale was also used in this study. To ensure the validity of the questionnaire, the experts such as professors and academic researchers and managers also indicated that they had validity. For measuring the reliability questionnaire (30 questions), the Cronbakh's alpha coefficient was used., With an initial distribution of 30 questionnaires reliability for the questionnaire contained 21 questions, which is equal to 0.862 respectively. With regard to the minimum reliability coefficient for the questionnaire study 0.70 is the Cronbakh's alpha coefficient obtained is considerably

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higher than this The Cronbakh's alpha coefficient for the overall distribution of the questionnaires fully completed questionnaires were examined and counted, and results were obtained in accordance with Table2.

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Row	Structures measured	Cronbakh's alpha coefficient
1	IT Focus	0.872
2	Increase IT Valence	0.843
3	Increase IT Competency	0.864
4	Increase IT Managerial Commitment	0.828
5	Increase IT Resource Commitment	0.764
6	Competitive advantage	0.814
	Total Inventory	0.948

## Table 2: Cronbakh's alpha coefficients of

#### Table 3: Mean and standard deviation question

	Parameter	Mean	SD
IT focus	Q1	4.02	.820
	Q2	3.84	.838
	Q3	3.76	.887
	Q4	3.72	.821
Increase IT Valence	Q5	3.99	.782
	Q6	3.77	.913
	Q7	3.66	.915
Increase IT Competency	Q8	3.82	.890
	Q9	3.70	.883
	Q10	3.84	.882
	Q11	3.74	.914
Increase IT Managerial Commitment	Q12	3.79	.935
	Q13	3.76	.939
	Q14	3.71	.953
Increase IT Resource Commitment	Q15	3.74	.916
	Q16	3.78	.962
	Q17	3.20	.963
Competitive advantage	Q18	3.71	.964
	Q19	3.86	.934
	Q20	3.77	.938
	Q21	3.71	1.046

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## Analysis of Data

Data analysis for this study was both descriptive and inferential statistics. Descriptive statistics of mean and standard deviation of the individual questions and inferential statistics in structural equation modeling approach is used. To test this model using AMOS 16.0 software. In this study the structural relationship model is used to analyze the data An analytical model is plotted in study after study, based on data by AMOS path diagram models with performance measurements obtained In this model, the use of beta coefficients ( $\beta$ ) and gamma ( $\gamma$ ) and Z test research hypotheses have been tested.

## Information related to the Questions

The questionnaire contained 21 questions, which mean any of the information shown in Table 3.

## The Structural Model

AMOS software to output the results presented, the overall model fit indices indicate good condition. Chi-square value indicates that the model cannot see the difference between covariance matrices and the open producktion to be considered statistically significant.

Comparative index values greater than or close to 0.90 to show that the distance between the model A model approach to the independence and saturated models based on defined criteria. RMSEA fit index and CI 0/90 are in an acceptable range. This index combines the characteristics of absolute indices, indices thrifty (emphasis on degrees of freedom) and the sample size calculation model is an important factor.

Fitness indicators	Value
Degrees of Freedom	181
Chi-Square	411.487
$\chi^2/df$	2.273
IFI	0.908
CFI	0.907
PCFI	0.782
RMSEA	0.083

### Table 4: Research model fitness indicators

In the present model, the partial index of fit (more critical) indicates that all the operating loads are significantly different from zero. All the structural parameters (gamma and beta parameters) and are significantly different from zero. The table below estimates of standardized regression weights and factor loading coefficients effects are included.

Predictor variables		Variable binding	Estimated	Error	statistic Z
IT Focus	$\rightarrow$	increase IT Valence	.945	.119	7.971
IT Focus	$\rightarrow$	increase IT Competency	1.137	.137	8.306
IT Focus	$\rightarrow$	increase IT Managerial Commitment	1.117	.142	7.876
IT Focus	$\rightarrow$	increase IT Resource Commitment	1.044	.136	7.665
increase IT Valence	$\rightarrow$	Competitive advantage	0.044	.114	0.385
Increase IT Competency	$\rightarrow$	Competitive advantage	0.017	.104	0.162
increase IT Managerial Commitment	÷	Competitive advantage	0.050	.071	0.697
increase IT Resource Commitment	→	Competitive advantage	0.858	.129	6.629
IT Focus	$\rightarrow$	Q1	1.00		
IT Focus	$\rightarrow$	Q2	1.271	.136	9.358
IT Focus	$\rightarrow$	Q3	1.364	.144	9.457
IT Focus	$\rightarrow$	Q4	1.211	.132	9.153
Increase IT Valence	$\rightarrow$	Q5	1.00		
Increase IT Valence	$\rightarrow$	Q6	1.341	.112	11.943
Increase IT Valence	$\rightarrow$	Q7	1.205	.112	10.759
Increase IT Competency	$\rightarrow$	Q8	1.00		
Increase IT Competency	$\rightarrow$	Q9	.970	.090	10.772
Increase IT Competency	$\rightarrow$	Q10	1.054	.089	11.878
Increase IT Competency	$\rightarrow$	Q11	.995	.093	10.653
Increase IT Managerial Commitment	÷	Q12	1.00		

#### Table 5: Regression weights - loads of factor models

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Predictor variables		Variable binding	Estimated	Error	statistic Z
Increase IT Managerial Commitment	$\rightarrow$	Q13	.919	.079	11.683
Increase IT Managerial Commitment	÷	Q14	1.070	.078	13.736
Increase IT Resource Commitment	÷	Q15	1.00		
Increase IT Resource Commitment	$\rightarrow$	Q16	1.159	0.099	668.11
Increase IT Resource Commitment	÷	Q17	0.804	0.103	7.815
competitive advantage	→	Q18	1.00		
competitive advantage	$\rightarrow$	Q19	1.023	0.106	9.680
competitive advantage	$\rightarrow$	Q20	1.050	0.106	9.888
competitive advantage	$\rightarrow$	Q21	0.964	0.118	8.163





# The Findings and Analysis of the Results

We offer results in following table 6.

Table 6:	Results	in	brief
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Row	hypothesis	coefficient	Z	Results
1	IT focus has a positive impact on increasing the IT Valence.	.84	7.971	confirming hypothesis
2	IT focus has a positive impact on increasing the IT Competency.	.87	8.306	confirming hypothesis
3	IT focus has a positive impact on increasing the IT Managerial Commitment.	.76	7.876	confirming hypothesis
4	IT focus has a positive impact on increasing the IT Resource Commitment.	.88	7.665	confirming hypothesis
5	Increase the IT Valence has a positive impact on the competitive advantage of third-party logistics	.04	.385	reject hypothesis
6	Increase the IT Competency has a positive impact on the competitive advantage of third-party logistics companies.	.02	.162	reject hypothesis
7	Increase the IT Managerial Commitment has a positive impact on the competitive advantage of third-party logistics companies.	.06	.697	reject hypothesis
8	Increase the IT Resource Commitment has a positive impact on the competitive advantage of third-party logistics companies.	.87	6.629	confirming hypothesis

As shown in the table 6, four first hypothesis and the 8th have been accepted and hypothesis 5, 6, 7 have been rejected, confidence level for all tests had been .95 (error .05). See table for path coefficient and Z statistics.

#### **Conclusion and Recommendations**

The results show, focusing on information technology now has significant impacts on logistics and transportation. Resulting value of analytics and IT capability impact of information technology on business competitiveness approved management commitment but the impact was not endorsed by other factors.

According to what was stated in the survey, today's IT organizations simply as a tool to facilitate the automation of processes and activities do not look The strategic role of information technology and information systems has And organizations try to use it to implement its business strategy Joe IT is also a way of making us have to use it.

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As can be seen in Table 3 Average variable IT focus 3.8329, the average variable IT Valence 3.8080, the average variable IT competency 3.7772, the average variable IT Managerial Commitment 3.7536, Average variable IT Resource Commitment 3.5743 and the average variable competitive advantage 3.7609 is the auto transport companies. This is an indication that all of these firms are in relatively good.

The focus of this research is that if we want to increase the IT Valence and IT competency, increase Managerial Commitment and increasing Resource Commitment, third-party logistics companies increase competitive advantage, the information technology Valence, information technology competency and management commitment are more concerned. Companies to plans and procedures for the use of complementary strategic capabilities as mediators The indicators focus on the IT function in a competitive market requires to impact of these factors such as(competency, valence and management commitment) on firm performance strengthen.

#### Limitations

Reasons such as lack of access to information and resources needed for optimal exact indicators IT Focus And achieve competitive advantage, logistics companies, as well as lack of field research conducted in this area of the country has been limited research Also, lack of time and in some cases a lack of cooperation on the part of the time allocated by the Company to complete the questionnaire, the study makes it difficult The limitations of this study may be the lack of recent events required for a more comprehensive study noted.

#### Suggestions for Future Research

Information technology is a key component of supply chain management, so it is important to examine its impact on today's organizations there are several factors that focus on information technology to achieve competitive advantage have been identified as key factors in this study, four factors influence the valence, competency, managerial commitment and commitment to IT Resource Commitment is examined. Other researchers are suggested to influence other key factors to review and investigate Also, since the study was done in companies providing car transportation and distribution components Such research can be done in other companies gave different results from the comparative study of the differences between the results can be realized.

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#### REFERENCES

**Abdulai MS Kwon Y and Moon J (2012).** Intellectual Capital and Firm Performance: An Empirical Study of Software Firms in West Africa. *The African Journal of Information Systems* **4**(1) 1-30.

Andersen TJ (2001). Information technology, strategic decision making approaches and organizational performance in different industrial settings. *Journal of Strategic Information Systems* **10** 101-119.

**Barney J** (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management* 17(1) 99-120.

**Borek A, Helfert MGM and Parlikad AK (2011).** An information oriented framework for relating IS/IT resources and business value. In: Proceedings of the International Conference on Enterprise Information Systems (ICEIS) Beijing, China 1-10.

**Dehning B and Stratopoulos T (2003).** Determinants of a sustainable competitive advantage due to an IT-enabled strategy. *Journal of Strategic Information Systems* 12(1) 7–28.

**Esper TL, Clifford Defee C and Mentzer JT (2010).** A framework of supply chain Orientation. *The International Journal of Logistics Management* **21**(2)161 -179.

**Evangelista P, Mogre R, Perego A, Raspagliesi A and Sweeney E** (2012). A Survey Based Analysis of IT Adoption and 3PLs' Performance. *Supply Chain Management: An International Journal* 17(2)172-186.

**Fasanghari M, Habibipour Roudsari F and Chaharsooghi K (2008).** Assessing the Impact of Information Technology on Supply Chain Management. *World Applied Sciences Journal* **4**(1)87-93.

Gunasekaran A and Ngai EWT (2004). Information systems in supply chain integration and management. *European Journal of Operational Research* **159**(2)269–295.

Glenn Richey R, Genchev SE and Daugherty PJ (2005). The role of resource commitment and innovation in reverse logistics performance. *International Journal of Physical Distribution & Logistics Management* 35(4) 233-257.

Hansson J, Backlund F and Lycke L (2003). Managing commitment: increasing the odds for successful implementation of TQM, TPM or RCM. *International Journal of Quality & Reliability Management* 20(9) 993-1008.

Huang YC, Wu YCJ and Rahman S (2012). The task environment, resource commitment and reverse logistics performance. *Production Planning & Control* 1-13.

Haki MK(2007). Measuring the success of IT planning. Compass Magazine 179(18)56-60.

**Keramati A and Azadeh MA (2007)**. Exploring the Effects of Top Management's Commitment on Knowledge Management Success in Academia. *World Academy of Science, Engineering and Technology* **27** 292-297.

Kun Cho JJ, Ozment J and Sink H (2008). Logistics capability, logistics outsourcing and firm performance in an e-commerce market. *International Journal of Physical Distribution & Logistics Management* **38**(5)336-359.

**Luftman j**( **2000).** Assessing business-IT alignment maturity. *communication of the association for information system* 4(14)1-51.

Lai Fujun, Zhao X and Wang Q (2006). The impact of information technology on the competitive advantage of logistics firms in China. *Industrial Management & Data Systems* **106**(9) 1249-1271.

Li S, Ragu-Nathan B, Ragu-Nathan TS and Subba Rao S (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *The international journal of management science* 34(2) 107-124.

Lin, Chieh-Yu and Ho Yi-Hui (2009). RFID technology adoption and supply chain Performance. *Supply Chain Management: An International Journal* 14(5)369–378.

Lieb, R. Bentz, B. (2004). The Use of Third Party Logistics Services by Large American Manufacturers: The 2004 Survey. *Transportation Journal* 44(2)5-15.

Neeraja B, Mehta M and Chandani A (2014). Supply Chain and Logistics For The Present Day Business. *Procedia Economics and Finance* 11 665 – 675.

Noordin N, Noor NLMD and Samicho Z (2014). Strategic Approach to Halal Certification System: An Ecosystem Perspective. *Procedia - Social and Behavioral Sciences* 121 79 -95.

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**Ong JW** (2007). Sustainable Competitive Advantage through Information Technology Competence: Resource-Based View on Small and Medium Enterprises. *Communications of the IBIMA* **1** 62 – 70.

**Porter M and Millar V (1985).** How Information Gives You Competitive Advantage. *Harvard Business Review* 2-14.

**PérezLópez S and Alegre J (2012).** Information technology competency, knowledge processes and firm performance. *Industrial Management & Data Systems* **112**(4)644 - 662.

**Rabinovich E, Windle R, Dresner M and Corsi T (1999).** Outsourcing of integrated logistics functions: an examination of industry practices. *International Journal of Physical Distribution & Logistics Management* **29**(6) 353-373.

Saatciog LU, Omu RY, Deveci DA and Guldem Cerit A (2009). Logistics and transportation information systems in Turkey. *Transforming Government: People, Process and Policy* 3(2) 144-162.

Sadiq Sohail M and Al-Abdali OS (2005). The usage of third party logistics in Saudi Arabia Current position and future prospects. *International Journal of Physical Distribution & Logistics Management* **35**(9)637-653.

Skinner LR, Bryant PT and Glenn Richey R (2008). Reverse logistics disposition strategies. International Journal of Physical Distribution & Logistics Management 38(7) 518 - 539.

Sakchutchawan S, Hong PC, Callaway SK and Kunnathur A (2011). Innovation and Competitive Advantage:Model and Implementation for Global Logistics. *International Business Research* **4**(3)10 -21.

**Tseng YVU, YUE WL and TAYLOR MAP (2006).** The Role of Transportation In Lgistics Chain. *Proceedings of the Eastern Asia Society for Transportation Studies* **5** 1657-1672.

**Talebnejad A (2008).** The Role and Effect of Information Technology in the Creation and Maintenance of Sustainable Competitive Advantage. *International Journal of Information Science and Technology* **6**(1)59-72.

**Tippins MJ and Sohi RS (2003).** IT competency and firm performance: is organizational learning a mission link? *Strategic Management Journal* **24**(8)747-761.

**Troshni I and Rao S (2007).** Enabling e-Business Competitive Advantage: Perspectives from the Australian Financial Services Industry. *International Journal of Business and Information* **2**(1)80-103.

Taqva MR and Hajizadeh P (2010). Measurement Maturity alignment strategies, information technology and business organization, study case: Saipa towing. *Journal of Science and Technology* 25(3)481-504.

Vargas A, Herna'ndez MJ and Bruque S (2003). Determinants of information technology competitive value.Evidence from a western European industry. *Journal of High Technology Management Research* 14(2)245-268.

Wang Qiang, Lai F and Zhao X (2008). The impact of information technology on the financial performance of third-party logistics firms in China. *Supply Chain Management: An International Journal* 13(2)138–150.