Studying the Influence of Logistics on Organizational Performance through a Supply Chain Strategy: Case Study in Goldiran Electronics Co.

Ali Hajiesmaeili, Mehdi Rahimi, Ehsan Jaberi, Amir Abbas Hosseini

Abstract—The purpose of this study is investigating the influences of logistics performance on organizational performance including both marketing & financial aspects, and showing the financial impacts of selecting the right marketing and logistics priorities in line with their supply chain type, and also giving the practitioners an advance identification of their priorities and participation types of supply chain, and the best combination of their strategies and resources in this regard. We made use of the original model's questionnaire to gather all expert's data and also SPSS and AMOS Ver.22 to analyze the gathered data. CFA method was also used to test whether a relationship between observed variables and their underlying latent constructs exists. Supply chain strategy implementation leads to logistics performance improvement, and marketing performance will be affected as well. Logistics service providers should focus on enhancement of supply chain performance, since logistics performance has been considered as a basis of evaluation of supply chain management strategy. Consequently, performance of the organization will be enhanced. This case is the first research made in Iran that analyzes the relationship between Logistics & Organizational performance in Home Appliances and Home Entertainment companies.

Keywords—Logistics, organizational performance, supply chain, supply chain strategy.

I. INTRODUCTION

GLOBALIZATION of markets and operations has given a fresh impetus to the managers of twenty first century firms to develop new perspectives of various managerial functions that include marketing, designing, engineering, production, financing, accounting and human resources. These managerial perspectives require tools in terms of suitable performance measures so that the available resources could be judiciously utilized for producing quality goods and services and in turn enhance the organizational competitiveness. These could be used in the enterprise environment that is characterized by supply chain and physically distributed global operations. Business organizations are increasingly find it necessary to be extremely flexible in responding to the changes in the market environment [18].

Today, the customers have many demands from the market, such as better prices, more convenient customer services, and variety of options at their disposal. The question is how the companies are able to satisfy the customers with all these expectations. To fulfill those demands lies within a subject known as Supply Chain Management. This subject is under close observation by the managers and under careful consideration by academicians and this facts reiterate the importance of supply chain management (SCM). Lambert & Cooper [25] defined SCM as a combination of processes from the original supplier to the end user that conclude to products, information and/or services which can be considered as an added value to the original product or state.

In order to survive in today's competitive business world, every company has to establish business relations. The development and competiveness of the companies also depend on their relationships with the other successful companies and partners. Nowadays you can find the companies participating in at least one supply chain with high desires to participate in more successful supply chains [9]. SCM is among the tools used by organizations to improve their business performances [23].

In Iran, problems existing in the logistics distribution of large household electrical appliance include wide variety components. The importance of logistics operation by most of household electrical appliance retail chain enterprises is not enough. Those enterprises just consider logistics department as an auxiliary department to cooperate and support purchase and sale. Inside the enterprises, the logistics, purchase, sale and after-sale service are not organized through the procedures and not even arranged uniformly; outside the enterprises, the suppliers, users, and logistics resources are not integrated effectively. The enterprises do not take initiative to integrate the supply chain for household electrical appliance so as to make plans for logistics from the strategic perspective of supply chain management, which brings no good for cutting down logistics costs and improving the operation efficiency of logistics system.

As previously stated, researches [1], [2], [5] show that certain marketing and logistics strategies should be used with the right supply chain type. Firms exhibiting consistency among the logistics and marketing strategies and their type of supply chain should face higher performance and competitiveness levels in compare to the companies that are inconsistent with their supply chain type. The three aforementioned entities guide the company to reach its goals instead of any confliction.

To answer the research question about the impact of logistics on organizational performance in a supply chain

A. Haji Esmaeili is with the Bordeaux University, DBA, France (phone no. +98-9121886076, email: ali.h.esmaeili@gmail.com).

M. Rahimi, E. Jaberi and A. A. Hosseini are with the Bordeaux University, DBA, France (e-mail: m.rahimi1978@gmail.com, Ehsan_jab@yahoo.com, Ahosein75@yahoo.com).

context at a company, the staff and management of Goldiran Electronics Company (GEC) were used to collect the required data. The GEC was selected, since its staff had enough knowledge of logistics, marketing and supply chain matters of their company, for this survey and its executives (managers and above) had a fair comprehensive view of their company due to their high positions. Articles and scales from previous studies were used to conduct this survey.

II. LITERATURE REVIEW

A. Logistics Performance

It can be said that Effective logistic management is vital element to improve both profitability and competitive performance of a firm. While [37] hypothesized a positive link between logistics strategy and organizational performance, but he did not report data collection associated logistics strategy measurement and also the results associated to his hypotheses. Reference [32] measures the relationship between logistics quality and the organizational performance of enterprise in the retailing sector.

Green, Whitten & Inman, [17] propose a logistics performance model which incorporates logistics performance as a construct and supply chain management strategy as an antecedent and organizational performance with financial and marketing as results. Logistics has traditionally been explained as the process of planning, implementing, and controlling of efficient flow and storage of products, services, and related information as they travel from point of origin to consumption spots within this model. The logistics strategy and competitive priorities have been defined by the literature, which is not as conclusive to date, through the marketing strategy.

Reference [2] tried to classify the logistic strategies by proposing a framework containing the process, channel and market strategies. Managing a broad group of logistics activities is concerned by the process-based strategy as a value added chain. As an integrated system, the focus is on scheduling, physical distribution and efficiency from managing purchases.

As compared to the process-based strategy, the market based strategy deals with a limited group of logistics activities for a single business or multiple business units. The logistic seeks to facilitate sales and to perform joint shipment to common customers for different groups of products, by a single order invoice. The logistics activities are managed by the channel based strategy, performed with distributors. The external control has been greatly focused by the strategic orientation. In the distribution channel, a considerable amount of finished inventories are maintained forward or downstream. The competitive priorities or capabilities of a firm to develop through their logistics operation are not identified by these strategies due to their descriptive nature. Reference [7] also tried to classify the process, market and channel factors. They found slight difference in strategy overlaps while observing the activities, in spite of finding the framework promising. Therefore there was a need for a more useful framework. McGinnis & J., [28] also studied the logistics and identified

four strategies: intensive and integrates logistic strategies, low integration and low effectiveness logistics strategies. Similarly, those four strategies were also unable to explain the developing capabilities of a firm in order to sustain their competitive advantages. They also studied the link between the time competitiveness, logistics strategy and organization environment. If we combine the studies and the logistics strategy frameworks of [28] and [2], we can see the effect of dynamism, hostility and competitive responsiveness on the logistics strategies. We can also associate the intensive logistics strategy with high levels of dynamism and hostility and the logistic coordination, while customer service has high priorities.

Some authors tried to classify the firm's logistic capabilities and their links to other items. Lynch, Keller, & Ozment [27] studied a firm's performance and the effect of its strategies and capabilities on it. Their studies included the service and process capabilities, the differentiation and cost leadership strategies. Their studies could positively link the process capabilities to a cost leadership strategy. They could also link the value added service capabilities to differentiation strategy. Firms that could successfully pair their capabilities to their strategies had a better performance as compared to the firms that were unable to pair the mentioned item. The result of their studies proved that a certain strategy cannot be used in all conditions. Morash, A. et al. [30] studied the link between the performance and logistics capabilities and could classify the capabilities into two groups of demand and supply oriented capabilities. Customer service (pre-sale and post-sale), speed and reliability of delivery and responsiveness were included in demand oriented capabilities while the low total cost and selective distribution were included in supply oriented capabilities. The demand oriented capabilities were ranked higher in their studies for their importance and implementation. By their studies, they could only link four capabilities to performance such as speed and reliability of the delivery and responsiveness and low cost distribution.

To achieve specific logistics capabilities, the logistics strategy is a vital factor for a business and plays an important role in business decision makings. Considering the discussed studies, it is logical to link the logistics competitive priorities to the type of supply chain that a firm selects and also to its performance in this regard.

B. Organizational Performance

Development of the literature on measures of performance can be divided into two phases [11]. First part is related to the period of time until the 1980s and concentrates on financial measures. Second part which emerged in the late 1980s, was related to the emergence of new management phenomenon like supply chain management.

Reference [5] presents performance measurement approach that contains qualitative and quantitative measures. Firstly, quantitative measures include cost and resource utilization and qualitative measures include quality, flexibility, trust and innovativeness. It can be said that cost is one of the measures that can be measured by distribution or manufacturing or even

inventory cost (in SCM context). Concept of resource utilization means labor, capacity; energy rand performance measurement investigates the amount of excess, lack of that particular resource in a period of time. It is worth mentioning here that optimization can save time and money, and it can minimize the size of firm as well as increasing its performance. Secondly, qualitative measures include quality, flexibility, and innovativeness. So, time based qualitative measures are as following: responses time of customer, lead-on-time delivery, and accuracy.

One significant measure is lead-time that stands for the time needed once goods began its manufacture until the time it is completely processed. According to existing literature [1], it divided performance (in SCM context) measures in two groups: qualitative and quantitative, which customer satisfaction and responsiveness, are presented. This researcher also presents three types of measures including resources, output and flexibility. He also presents two performance measures: the first one is cost and the second is the combination of cost and responsiveness. So, cost includes inventory costs and operating costs and customer responsiveness measures consist of lead-time and fill rate.

Following to [35], the Superior SCM practices enhancing organization's market performance and financial performance such as, Market share, the sales growth, investment return, the market growth, the return on investment growth, the sale's margin profit and in overall competitive position of the organization [26]. The use of accurate and authenticated financial reporting adds reliability to the performance of an organization [29].

C. Supply Chain Management Strategy and Organizational Performance

The early attempts of empirical research in SCM have been limited to develop instruments, being capable of measuring SCM practices. Most recently, some researchers have focused their research efforts into exploring the relationship between practices of SCM and organizational performance. They have used financial and market criteria to operationalize organizational performance (return on investment, market share, profit margin on sales, the growth of return on investment, the growth of sales and the growth of market share) [21].

Supply chain strategies focus on how both internal and external business processes can be integrated and coordinated throughout the supply chain to serve better ultimate customers and consumers while enhancing the performance of the individual supply chain members [8].

Tan et al. [33] tried to relate specific supply chain management practices to a particular firm. They studied the financial performance of a firm and the effects of customer relation practices, supply base management and quality management on it. They could reach to this conclusion that the firm performance is positively related to the use of performance data in quality management, involvement quality and social responsibility of management. They also found that the supply base management has a considerable impact on

growth of the firm but not on overall performance. The positive impact of customer relations on firm performance showed the need of the firms to be customer orientated. It should be noted that the customer orientation is noticed on many aspects of supply chain management.

D. The Relation between Logistics and Organizational Performance

Lai & Cheng, [24] discuss the importance of a supply chain focus is on the part of transport logistics service providers as their function to link suppliers, manufacturers, sellers, and customers throughout the supply chain. They argue that transport logistics service providers must focus on supply chain performance in addition to organizational performance. While the link from supply chain performance is theoretically justified, no empirical evidence related to the link was identified. The logistics performance construct reflects the organization's performance as it relates to its ability to deliver goods and services in the precise quantities and at the precise times required by customers [3] incorporate performance metrics such as customer satisfaction, delivery speed, delivery dependability, and delivery flexibility. Marketing performance reflects the organization's ability to increase sales and expand market share as compared to its competition [14]. Financial performance reflects an organization's profitability and return on investment as compared to its competition [6], [14].

Supply chain management was hypothesized by [37] as a firm performance positive predictor. According to [4], the hypothesis was justified based on argued relation between the organizational performance measures such as profitability and market share to the purchasing and supply management function's performance evaluation. Vickery et al. [34] surveyed CEOs of firms in the office and residential furniture industry to assess the relations available among the measures of supply chain resilience, target and access market resilience, launce and volume and the measures of overall firm performance. They also found out that the volume flexibility has a positive correlation with all the performance measures. The strategies that are implied in an organization that are in line with supply chain strategies, should reinforce the supply chain's competitive position, which eventually will improve individual supply chain partners' performance. The real world examples have confirmed the decisive impact of supply chain management practices. A recent study shows that, the cash to cash cycle time of the companies who have mastered the SCM has 40 to 65 percent better situation and also the inventory of top organization are 50 to 85 percent less than their rivals. Organizational strategies that support supply chain strategies should strengthen the competitive position of the supply chain which, in turn, enhances performance of each of the individual supply chain partners. Morash [31] presented a pattern for future supply chain research that included transportation and logistics capabilities as the link between supply chain structure and performance, while [37] hypothesized a positive link between logistics strategy and organizational performance, he did not report data collection related to logistics strategy measurement and did not report results related to his

hypotheses, then [32] assessed the relationship between logistics quality and the organizational performance of firms in the retail sector [17].

III. RESEARCH METHODOLOGY

A. Research Design

The primary purpose of this study is to test the proposed model and all hypotheses derived from previous research findings. A quantitative method is selected, due to the nature of study and preferred results. In order to analyze the data, we used both quantitative and qualitative methods. From a targeting viewpoint, this research is applicable, and from an implementation point of view is descriptive. In descriptive study, information is collected without changing the situation (i.e., nothing is manipulated).

The Structural Equation Model (SEM) is the selected method because of two primary advantages. First, it provides a test of the theoretical structure of the measurement instrument (e.g. the relationship of the construct with its items), and second, the relationship between the construct and other constructs can be tested without the bias that measurement error introduces. Both advantages are relevant for theory building as well as in applied settings where unbiased estimates of the measure's reliability and validity are also of great importance. The proposed models are considered as a quite complex model because it consists of several constructs and their relationship as series of hypotheses. The secondary purpose is to test the measurement developed from previous research by using the measurement model in SEM. However, SEM needs a great deal of data to test the whole model; therefore, the data collection method should have the following characteristics: (1) an advantage when collecting perceptual data from a large population and (2) it is easily quantifiable and compatible to SEM. A non-experimental mail survey methodology [22] is an appropriate means for gathering the data necessary to test the model and its hypotheses. A survey research design possesses both of the desirable characteristics and allows testing the existing measures developed in previous survey research. Extension of prior research is an important aspect of research, and as such, it is a secondary objective of this dissertation. The research design carefully follows the tailored design concept proposed by [10]. Two types of errors should be considered in survey research: coverage error & sampling error. Choosing the right population can reduce coverage error; employing appropriate statistical procedures, such as random selection and appropriate amount of sampling, can reduce sampling error.

B. Research Population

Population of this study includes all of Goldiran managers (Exclusive Distributer of LG Electronics Co), experts and distributers specially those working in the logistics sections.

C. Research Sampling

The number of sample which provides a sufficient power to test the model is estimated based on the combination of Hair et al. [20] procedures & Westland [36] formula. In [20], the sample size which is necessary to run & support the SEM (Structural Equation Modeling), it's been mentioned that SEM models contain 5 or fewer constructs with more than 3 items (observed variables) for each of them & with high item communalities (0.6 or higher) needed to be sufficiently estimated with the range of 100-150 samples. On the other hand, using the Westland [36] table which described the adequate samples in structural equation modeling is as below: With the 4 latent variables & 17 indicators, 91 samples are appropriate & with the 5 latent variables & 18 indicators, 128 samples are appropriate. In this case, it's 4 latent variables & 18 indicators. So with the combination of two different methods & using statistical experts' ideas, it has been figured out that 120 is the effective number of samples in this study.

D. Research Model

This study examines the effects of supply chain management strategy and logistics performance on organizational performance in Goldiran Company. Dependent variables are used to measure organizational performance as financial & marketing measures. Given that an important goal of SCM strategy for Goldiran Co is to maximize the overall value of products and service, and to reduce cost, it is important to analyze the effects concerning how this framework will improve organizational performance through certain practices. This model is based on [17].

Green et al. [17] proposed a logistics performance model that incorporates logistics performance as the focal construct with supply chain management strategy as antecedent and organizational performance, both financial and marketing, as consequences. Although the model as proposed was original, it has been built upon and extended the works of [15], [37]. The model incorporated six hypotheses and is illustrated in Fig. 1 [17].

The model consists of the following constructs:
- Supply chain management strategy;
- Logistics performance;
- Marketing performance;
- Financial performance.

A supply chain management strategy requires an end-to-end supply chain focus that supports integration of business processes such as purchasing, manufacturing, selling, and logistics throughout the chain for the purpose of providing optimum value to the ultimate customer/consumer. Implementation of such a strategy requires that actions be taken to strengthen relationships and develop trust among supply chain partners to facilitate the integration of processes throughout the supply chain from suppliers' supplier to ultimate consumer/consumer [8], [37]. The logistics performance construct reflects the organization's performance as it relates to its ability to deliver goods and services in the precise quantities and at the precise times required by customers. Reference [3] incorporates performance metrics such as customer satisfaction, delivery speed, delivery dependability, and delivery flexibility [17]. The marketing performance reflects the organization's ability to increase sales and expand market share as compared to its competition

[14], [15]. The Financial performance reflects an organization's profitability and return on investment as compared to its competition [6], [16], [14], [17].
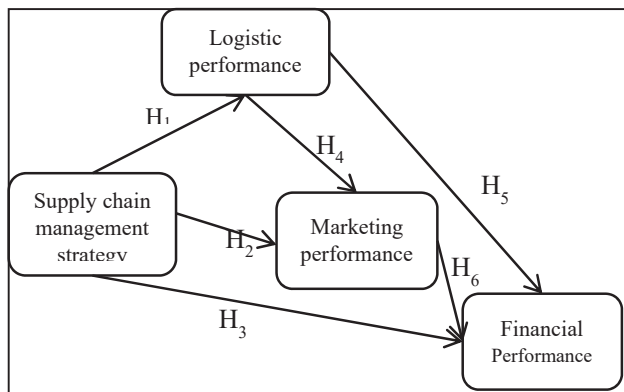
The research model is shown in Fig. 1:

Fig. 1 Conceptual framework of the research model

E. Hypotheses Development

H1: A supply chain management strategy is positively associated with logistics performance.

H2: A supply chain management strategy is positively associated with marketing performance.

H3: A supply chain management strategy is positively associated with financial performance.

H4: Logistics performance is positively associated with marketing performance.

H5: Logistics performance is positively associated with financial performance.

H6: Marketing performance is positively associated with financial performance.

F. Content Validity

To ensure content validity, three procedures were applied. First, extensive literature review in the area of inter-organizational influence and related areas were conducted to ensure that all-possible contents were tapped in each construct (a first English version draft). Second, the English version draft was reviewed by experts in inter-organizational influence research and survey design to ensure content validity. Third, to customize, or fit, the contents to Iran logistics business culture, the researcher used a focus group of six Iranian practitioners to validate the contents of each construct. During the customization procedure, each construct was briefly described and the focus group provided all possible dimensions in each construct.

Most items provided by the focus group were almost identical to those found in the literature review. Interestingly, the contents, appearing in the literature review, but not produced during the group brain storming session, were introduced to the group as additional dimensions and reviewed for justification.

All members in the focus group agreed upon all items with the comments of "too similar meaning." In addition, they noted that "without discussion with others, we would not think about those additional items." However, no one raised concerns about the length of the questionnaire when the researcher presented the questionnaire protocol plus demographic items. At this point, the question of content validity was satisfied.

G. Questionnaire Format and Appearance

At this point, the questionnaire contained 6 items for supply chain management strategy, 5 items for logistics performance, 4 items for financial, measures and 3 items for marketing performance criteria and 5 items for demographic with heading and footing. All questions fit on one A3 size piece of paper. This document, when half folded, showed three full pages of double-spaced typing in 12-point font. During the content validity justification, when the researcher asked about whether or not the length was appropriate to finish in 10 minutes, the focus group responded as "acceptable and doable." To justify the length and appropriateness of this section, a pretest was introduced to define the optimum length of the questionnaire.

The questionnaire which shows the indicators table based on this model is available in Table IV.

H. Data Analysis

The main purpose of this study was to explore the relationships among supply chain strategy, logistics performance and organizational performance (marketing and financial). Structural equation modeling (SEM) was used to analyze the data. The first step in the data analysis process was to perform a confirmatory factor analysis to assess discriminant validity for the constructs. Cronbach's alpha was used to assess consistency validity.

I. Structural Equation Modeling

Before proceeding to the large scale data assessment, we will discuss the structural equation modeling methodology and the major model evaluation indices. Unlike the traditional statistical methods that can examine only a single relationship at a time, the structural equation modeling method greatly expands the researchers" capability to study a collection of interdependent relationships simultaneously. The first important stage in SEM is to indicate its two components: Measurement Model and Structural Model. SEM model specification must always be based on accurate theory from existing literature. The need for theoretical support in SEM is very important to determine the dependence relationship modifications to the suggested connections and some other aspects of model [19]. Once the measurement and structural models are specified, the researcher must choose software for model estimation and evaluation. One of the most widely used programs is AMOS. For describing the strength of the model, there is no unique statistical test that best describes the strength of a model. Thus, statistical scientists have introduced a number of goodness of fit indices to evaluate the results from three viewpoints. 1) Overall fit; 2) comparative fit to a base model; and 3) model parsimony.

By using SEM, unidimensionality is primarily demonstrated through the overall goodness-of-fit of the measurement model,

the convergence of items on the latent variable they purport to measure, and the discriminance of items on latent variables they are not intended to measure. In addition, the standardized residual report and modification index were produced to locate the problematic items.

J. Indicators for Goodness-Of-Fit Selection

In general, there are two strategies to evaluate overall model fit: 1) selecting fit indices, which represent different families of fit indices and 2) specifying a stringent criteria and selecting fit indices that best represent the criteria. Six fit indices were used primarily to access the degree of fit: CMIN/DF, GFI, CFI, P and RMSEA with PClose.

K. Unidimensionality

Unidimensionality is defined as the existence of one construct underlying a set of items. In other words, Unidimensionality is the degree to which items represent one and only one underlying latent variable [13]. Operationally, Unidimensionality of measurement was justified based on the result of four reports. The reports, produced by SPSS: ver22 & AMOS: ver22 for CFA.

L. Validity & Reliability

Scale reliability refers to the internal consistency of a scale to measure a latent variable. Reliable scale possesses items that measure the same Unidimensionality construct and vary together statistically [12]. Reliability of the scales was determined in three ways as proposed by [13]. However, since coefficient alpha tends to underestimate scale reliability, the SEM scale reliability and variance extracted were calculated as well, using formulae provided by [13].

An accommodation example of subjects was taken utilizing the mailing rundown given by the creator. The mailing rundown was cleansed of Goldiran logistics chiefs. The subjects focused on all having high-positioning administration positions in logistics or SCM. A website page containing the review was made where members reacted to the study electronically.

To analyze the reliability of the questionnaire also, Cronbach's alpha has been used. Table I shows the result of Cronbach's Alpha test for all questions and also main categories.

TABLE I
CRONBACH'S ALPHA RESULTS

Variables	Cronbach's alpha (á)
SCM strategy	0.84
Logistics performance	0.85
Financial performance	0.86
Marketing performance	0.83

IV. RESULTS

A. Main Model Fitness

Model fitness indices are those indices, based on the

differences between variances and covariance from both in observation of estimated variables and also model variables. Having high freedom degree (close to independent model) and low Chi-Square shows the acceptance level for the model.

TABLE II
MAIN MODEL FITNESS RESULTS

Fitness Indexes	$\frac{\chi^2}{df}$	RMSEA	CFI	GFI	P-Close	P
Model result	1.510	0.065	0.599	0.814	0.090	0.000

Table II shows the results of main model fitness. Based on the results indexes could be explained:

- $\frac{\chi^2}{df}$: This index helps to judge about the model validity, and data support will be very helpful. The model to be acceptable, this unit should be under 3. Results show the 1.510, and this indicates that model gets the acceptance and goodness.
- RMSEA should be less than 0.05 and the result of 0.065 shows it is in the range of less than 0.08 and it could be acceptable.
- CFI: as CFI should be between 0 ~ 1 and closer values to 1 show better results for the model, so 0.599 is an acceptable value.
- GFI: GFI index shows 0.814. Although the best result for this index is more than 0.9 but the earned result from the model is also accepted.
- P-Value: The Earned P-Value in this model is 0.000 which based on the below assumptions:

$$H0: RMSEA = 0$$
$$H1: RMSEA > 0$$

Although it shows the model will be rejected but with calculating PCLOSE based on the below assumption:

$$H0: RMSEA \leq 0.05$$
$$H1: RMSEA > 0.05$$

It could be resulted that based on the value of 0.090 the model with 90% reliability is in the range of $0.046 \leq RMSEA \leq 0.083$ which is acceptable.

B. Model Results

As figures mentioned in Table III, we found out that the relation between SCM strategy & Logistics performance is perfect. Both impact Marketing performance & financial performance significantly. Hence regarding to our research model & Fig. 2, SCM strategy & Logistics performance impact overall organizational performance directly in both marketing & financial aspects. In the meantime, marketing performance impacts financial performance as well.
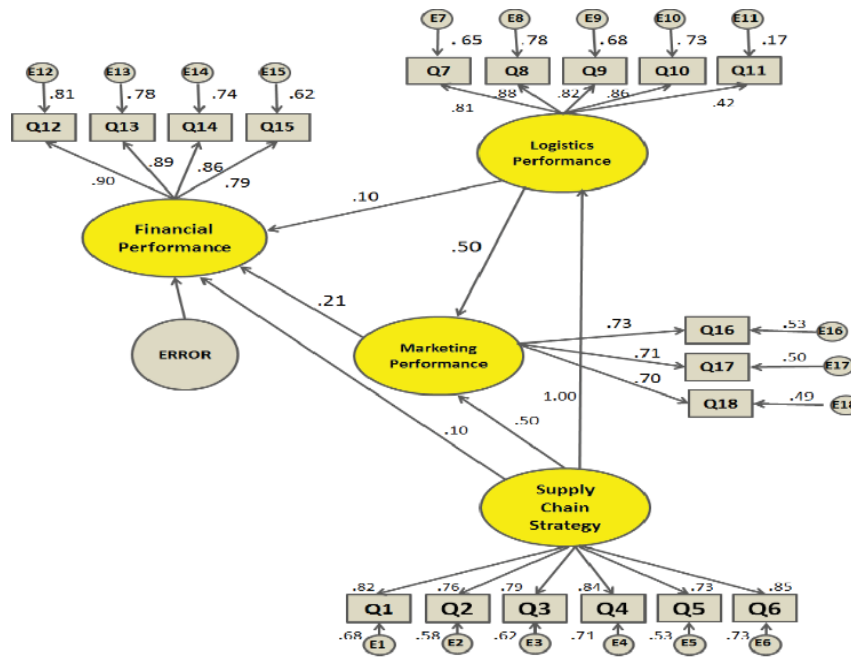
Fig. 2 Main Model

TABLE III
COEFFICIENT VALUE OF MAIN MODEL

Coefficients	SCM Strategy	Logistics Performance	Marketing Performance	Financial Performance
SCM Strategy	1.00	1.00	0.50	0.10
Logistics Performance		1.00	0.50	0.10
Marketing Performance			1.00	0.21
Financial Performance				1.00

V. CONCLUSION

A. Discussion

The data analysis section reported the structural modeling and hypotheses testing results on the proposed model. In sum, all the 6 hypothesized relations were significant.

The final AMOS structural model displayed very good fit to the data. However, statistical significance and model fit are not ultimate objectives of academic research. They are just the means to achieve the end, which is better understanding of the subject under investigation and discovery of new relationships. The results from this research can be used by both academicians in further exploring and testing the causal linkages in supply chain responsiveness study, and practitioners for guiding the implementation of SCM practices and modularity based manufacturing practices, and the evaluation of supply chain responsiveness and thus competitive advantage of the firm as consumer-oriented sales promotion. Measurement instruments of current study were developed based on input from previous studies, focus group sessions, and the author's own judgment. And measure instrument was formed as 5 point self-reported scale. The results of this research demonstrated that 75% of respondents were male and 25% were female. After recoding respondents' ages, the result showed that 37.5% of respondents were

between 41 and 50, followed by 51 and 60 (25%). Finding the job situation shows that 58.3% of respondents were managers and 18.4% were directors. So it can be said that most of sample society were middle aged managers. The last part of data analysis in this research, were included confirmatory factor analysis of data which extract final affecting factors. The findings of the fit analyze, demonstrate that the research model had a good fit.

In this research, it has been presented a logistics performance model and explained six hypotheses proportional with this model, based on which, all hypotheses were tested and then, each six hypotheses were confirmed. All related managers & experts in Goldiran electronics companies are considered as subjects of this study. A number of 120 managers & experts are selected as sufficient sample through [20] procedures & Westland [36] formula. The present study carried out through the use of questionnaire and SPSS: ver22 & AMOS: ver22 software, Structural Equation Modeling has also been used for the data analysis. The results of confirmatory factor analysis (CFA) showed that supply chain management strategy has significant relation with the logistics performance and organizational performance (marketing and financial) and has the highest impact on the logistics performance. Due to the observance to the CFA results, we found that financial performance of the organization feels the highest effect from marketing performance and marketing performance also feels the highest effect from the logistics performance and SCM strategy. So it can be said that organizational performance is increased as a result of implementation of supply chain management strategy & improving logistics performance inside that.

The results, obtained from statistical analysis, showed that supply chain management strategy has established significant

relationship with each of three types of performance (financial, marketing and logistics). Standardized coefficient between the SCM strategy and financial performance (0.10) is found "weaker" but it is found "more" with the logistics performance (1.0) and marketing performance (0.5). Also, logistics performance had significant relationship with the organizational performance (financial and marketing). It has left the higher effect on marketing performance (0.5) and the lower effect on financial performance (0.10). It should be noted that marketing performance leaves the highest effect on financial performance with standardized coefficient of 0.21. Marketing performance accepted a considerable effect from logistics performance and SCM strategy to the results of confirmatory factor analysis. Hence, in conclusion & answering the research question, the impact of logistics on organizational performance (both marketing & financial) was supported and improvement in logistics performance can benefit organization in all ways. Implementation of supply chain management strategy results in improvement of logistics performance, based on which, marketing performance will be affected. Since logistics performance has been considered as a basis of evaluation of supply chain management strategy, providers of logistics services should concentrate on increasing supply chain performance. Consequently, performance of the organization will be increased. By the way, quality goods and services can be presented according to the requirement of customers appropriately in the shortest time possible and with fair price through implementation of a strategy based on integration with customers and suppliers, processes and activities, and implementation of those activities which improve and intensify cooperation and trust relationship among participants. Customer Relationship Management (CRM) is a necessary infrastructure for the implementation of integration with customers. Integration with the suppliers requires their strategic cooperation and collaboration in all processes. Eventually, information technology (IT) is one of the necessary infrastructures for establishing integration in supply chain processes and activities.

B. Study Constraints

- The sample size of this research was limited, so generalizing of the final finding to overall population may seem not to be valid.
- Although questions choices were based on previous researches, there is possibility that, all alternative questions might not have been included in questionnaire.
- The effect of analyzed Factors on financial and marketing performance could be dependent on time. It is better to gather data in different period of time.

C. Future Study Recommendations

- The effect of supply chain management strategy performance could be dependent on human resource of organization, so it's better to consider human resource as dependent factors in future researches.
- The main sample (Goldiran Electronics) was basically a firm in Iran Home Appliances Industry. So, the sample may be biased toward other firms in this industry & also other industries in Iran in future researches.
- Considering macro and micro industries which the researchers could investigate the application of such conceptual model on different company size. This case study was a medium-sized company & the next researchers can test this model to small-sized or large-sized company as well in order to deepen the current findings.

TABLE IV
RESEARCH QUESTIONNAIRE

Please indicate the importance of the each of the following issues to your organization's supply chain management efforts	Low importance				High importance
	1	2	3	4	5
Indicators					
Searching for new ways to integrate SCM activities					
Creating a greater level of trust throughout the supply chain					
Establishing more frequent contact with supply chain members					
Communicating customers' future strategic needs throughout the supply chain					
Extending supply chains beyond your firm's customers/suppliers					
Communicating your firm's future strategic needs to suppliers					
Please rate your company performance in each of the areas as compared to the competitors	Much worse than competitors				Much better than competitors
Delivery speed					
Delivery dependability					
Responsiveness					
Delivery flexibility					
Order fill capacity					
Please rate your company performance in each of the areas as compared to the industry average	Below industry average				Above industry average
Average return on investment over the past three years					
Average profit over the past three years					
Profit growth over the past three years					
Average return on sales over the past three years					
Please rate your company performance in each of the areas as compared to the industry average	Below industry average				Above industry average
Average market share growth over the past three years					
Average sales volume growth over the past three years					
Average sales (in dollars) growth over the past three years					

REFERENCES

[1] Beamon, Benita, & Ware, T. (1998). A Process Quality Model for the Analysis, Improvement and Control of Supply Chain Systems. International Journal of Physical Distribution and Logistics Management, Vol. 28 No. 9/10, pp. 704-715.
[2] Bowersox, D., & Daugherty, P. (1987). Emerging Patterns of Logistical Organization. Journal of Business Logistics, Vol. 8, No. 1, pp. 46-60.
[3] Bowersox, D., Closs, D., & Stank, T. (2000). Ten Mega-Trends That Will Revolutionize Supply Chain Logistics. Journal of Business Logistics, 21 (2), 1-17.

[4] Carter, J., & Narasimhan, R. (1996). Purchasing and supply management: future directions and trends. International Journal of Purchasing & Materials Management, Vol. 32 No. 4, pp. 2-12.

[5] Chan, F., & Qi, H. (2003). Feasibility of Performance Measurement System for Supply Chain: A process based approach and measures. Integrated Manufacturing Systems, Vol. 14, Iss. 3, pg 179-190.

[6] Claycomb, C., Germain, R., & Droge, C. (1999). Total system JIT outcomes: inventory, organization and financial effects. International Journal of Physical Distribution and Logistics, Vol. 29 No. 10, pp. 612-30.

[7] Clinton, S., & Closs, D. (1997). Logistics Strategy: Does It Exist? Journal of Business Logistics, Vol. 18, No. 1, pp. 19-44.

[8] Cohen, S., & Roussel, J. (2005). Strategic Supply Chain Management: The Five Disciplines for Top Performance. McGraw-Hill, New York, NY.

[9] Cvetic, B., & Vasiljevic, D. (2012). A Conceptual Model for Supply Chain Performance Management and Improvement. Advances in Business-Related Scientific Research Journal, vol 3 No1.

[10] Dillman, D. (2000). Chapter Four: Constructing the Questionnaires in Mail and Internet Surveys. The Total Design Method, New York: John Wiley & Sons, 79-148.

[11] Dixon, J., Nanni, A., & Vollmann, T. (1990). The New Performance Challenge: Measuring Operations for World-class Competition. Homewood, IL: Dow Jones-Irwin.

[12] Dunn, S., Seaker, R., & Waller, M. (1994). Latent Variables in Business Logistics Research: Scale Development and Validation. Journal of Business Logistics, 15 (2), 145-172.

[13] Garver, M., & Mentze, J. (2000). Salesperson Logistics Expertise: A Proposed Contingency Framework. Journal of Business Logistics, 21 (2), 113-132.

[14] Green, K., & Inman, R. (2005). Using a just-intime selling strategy to strengthen supply chain linkages. International Journal of Production Research, Vol. 43 No. 16, pp. 3437-53. .

[15] Green, K., McGaughey, R., & Casey, K. (2006). Does supply chain management strategy mediate the association between market orientation and organizational performance? Supply Chain Management: An International Journal, Vol. 11 No. 5, pp. 407-14.

[16] Green, K., Medlin, B., & Whitten, D. (2004). Developing optimism to improve performance: an approach for the manufacturing sector. Industrial Management & Data Systems, Vol. 104 No. 2, pp. 106-14.

[17] Green, K., Whitten, D., & Inman, R. (2008). The impact of logistics performance on organizational performance in a supply chain context. Supply chain management: An International Journal, Vol.13 No.4, pp.317-327. .

[18] Gunasekaran. (2007). Performance measures and metrics in logistics and supply chain management. International journal of production research, vol.45 no.12, 2819-2821.

[19] Hair, J. F., Anderson, R., Tatham, R. L., & Black, W. C. (1998). Multivariate Data Analysis with Readings. Englewood Cliffs, NJ: Prentice Hall, 5th Edition.

[20] Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). Multivariate Data Analysis. Pearson Prentice-Hall, Upper Saddle River, NJ., 6th Ed.

[21] Karimi, E., & Rafiee, M. (2014). Analyzing the Impact of Supply Chain Management Practices on Organizational Performance through Competitive Priorities (Case Study: Iran Pumps Company). International Journal of Academic Research in Accounting, Finance and Management Sciences, Vol. 4, No.1, pp. 1–15.

[22] Kerlinger, F., & Lee, H. (2000). Foundations of Behavioral Research. Fort Worth, TX: Harcourt College Publishers.

[23] Khang, T., Arumugam, V., Yee-Loong Chong, A., & Chan, F. (2010). Relationship Between Supply Chain Management Practices and Organization Performance: A case study in the Malaysian service industry. International Journal of Modeling in Operations Management, vol 1, No 1, p 84-106.

[24] Lai, K., & Cheng, T. (2003). A Study of the Freight Forwarding Industry in Hong Kong. International Journal of Logistics: Research and Applications, Vol. 7, pp. 72-84.

[25] Lambert, D., & Cooper, M. (2000). Issues in Supply Chain Management". Industrial Marketing Management, Vol. 29, pp. 65-83.

[26] Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., & Rao, S. S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. The International Journal of Management Science, 34, 107-124.

[27] Lynch, D., Keller, S., & Ozment, J. (2000). The Effects of Logistics Capabilities and Strategy on Firm Performance. Journal of Business Logistics, Vol. 21 No. 2, pp. 47-67.

[28] McGinnis, M., & J., K. (1990). A Factor Analytic Study of Logistics Strategy. Journal of Business Logistics, Vol. 11, No. 2, pp. 41-63.

[29] Melnyk, S., Stewart, D., & Swink, M. (2004). Metrics and Performance Management in Operations Management, Dealing with the Metrics Maze.

[30] Morash, A., E., L.M., C., Droge, K., S., & Vickery. (1996). Strategic Logistics Capabilities for Competitive Advantage and Firm Success. Journal of Business Logistics, Vol. 17, No. 1, pp. 1-22.

[31] Morash, E., & Clinton, S. (1997). The role of transportation capabilities in international supply chain management. Transportation Journal, Vol. 36 No. 3, pp. 5-17.

[32] Schramm-Klein, H., & Morschett, D. (2006). The relationship between marketing performance, logistics performance and company performance for retail companies. International Review of Retail, Distribution and Consumer Research, Vol. 16 No. 2, pp. 277-96.

[33] Tan, Keah-Choon, V., Kannan, R., Handfield, & S., G. (1999). Supply Chain Management: An Empirical Study of Its Impact on Performance. International Journal of Operations and Production Management, Vol. 19 No. 10, 1999, pp. 1034-1052.

[34] Vickery, K., Morash, A., E., L.M., C., Droge, & Shawnee. (1994). Strategic Logistics Capabilities for Competitive Advantage and Firm Success. Journal of Business Logistics, Vol. 17, No. 1, pp. 1-22.

[35] Wajahat, H., Jabir, H., Sajjad, A., Numair, S., & Zahra, A. (2014). The Effects of Supply Chain Management Practices (Strategic Suppliers Partnership, Information Sharing, and Postponement) On Organizational Performance in Consumer Goods Manufacturing Industry of Pakistan. International Journal of Management Sciences, Vol. 2, No. 8, 2014, pp.351-361.

[36] Westland, J. (2010). Lower Bounds On Sample Size in Structural Equation Modeling. Journal of Electronic Commerce Research and Application, 476-487.

[37] Wisner, J. (2003). A structural equation model of supply chain management strategies and firm performance. Journal of Business Logistics, Vol. 24 No. 1, pp. 1-26.