# Investigating the Change in Firm Performance using Balanced Scorecard: An Empirical Study of Logistics Service Providers in Egypt

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**Abstract**

The problem with many Logistics Service Providers (LSPs) in Egypt is to assess their performance that has been changing for many years especially when change became necessary due to severe competition, unstable economy and political environment, and a rapid change in technology. The purpose of this study is to recognize the role and effects of Change Management (CM) on the performance of LSPs in Egypt through using the Balanced Scorecard (BSC). The BSC is one of the practical methods that can be used in evaluating the impact of changes on performance through linking the BSC's four categories (financial, customer relations, internal business processes, and learning and growth) with the 'change' four categories (technological, social, leadership, and structural change). This research follows a quantitative approach using an online questionnaire to collect responses from approximately 450 LSPs in the Egyptian logistics industry to investigate the relationship between CM on performance. Descriptive statistics and inferential analysis are performed to analyze the data collected and achieve the research aim. The findings of this research showed a significant impact of the different types of changes on performance of LSPs through the BSC measurement. These types of changes would then be emphasized as key to drive performance improvement. This research would contribute into filling the gap in literature in the field of LSP in Egypt, nevertheless in the Middle East and North Africa (MENA) region and draw the attention of researchers to this topic that can support the effectiveness of the supply chain business in Egypt. This research could influence LSPs in Egypt to use the BSC as a tool to assess their performance. In addition, it provides a novel approach in the method of assessing the impact of change on the performance of LSPs in Egypt for further recommended developments.

Keywords: Logistics Service Providers, Balanced Scorecard, Change Management, Performance measurement, Egypt.

## 1. Introduction

Logistics Service Providers (LSPs) provide multiple logistics services for customers comprising inter alia customer service, inventory management, transportation, warehousing, cross-docking, packaging, cargo handling, freight forwarding and several logistics and supply chain activities (Liu and Lyons, 2011). The emergence of LSPs is closely associated with the outsourcing phenomenon of the early 1980s. Supply chain stakeholders have tended to outsource all or part of their logistics activities previously performed in-house to one or more specialty firms or LSPs in order to concentrate on their core competences (Liu et al., 2010). Ron et al. (2011) stated that the global market has witnessed significant development of the LSPs industry. This is attributed to the increasing concern of business managers to delegate the management of non-core activities to LSPs in order to focus on core competencies, which results in appropriate quality and priced products based on customers' desires (Bourlakis and Melewar, 2011). Thus, logistics performance in supply chains, such as lead-time, flexibility and on-time delivery is created by customers, suppliers and LSPs, and should be a shared responsibility (Forslund, 2012). Moreover, the logistics business sector plays a significant role for the prosperity of the Egyptian economy, especially that the quality of the Egyptian products have been deteriorating and their prices have been increasing constantly. The International Finance Corporation (IFC, 2009 and 2011) reports have presented a comprehensive overview of Egypt's logistics sector. It represents a USD multi-billion market, with planned investments of $7.5 billion in 2015 (IFC, 2011).

The management of performance in supply chains is no longer based on functional hierarchies, ownership, or intra-company power but rather based on cross-company relationships, which have an important role in the competitiveness of LSPs (El-Nakib, 2011). It is important that performance measurement systems are dynamic, so that performance measures remain relevant and continue to reflect the issues of importance to the business (Kennerley and Neely, 2002). Forslund (2012) stated that the business environment is getting more competitive, claiming that the acquiring, analyzing and reporting of performance data is a success factor for LSPs and their customers. Therefore, the BSC has evolved from the performance measurement tool originally introduced, to a tool for implementing strategies and a framework for strategy refinement by determining the alignment of organization's human, information and organizational capital with its strategy (Kaplan and Norton, 2000). Farooq and Hussain (2011) stated that organizational change refers to the adoption of an idea, procedure, process, or behavior that is new to an organization. Recent developments have reinforced that learning from the best practices adjust the overall system for better change results. Simultaneously, the increasing turbulence in global supply chains would necessitate the adoption of a more proactive and entrepreneurial policy within the organization. Thus, the most well developed view is that change is generally motivated by events in an organization's environment. Some problems or surprises such as shortfall in expected performance, unexpected moves by competitors, shifts in technology, or new customer demand triggers a change (Svensson and Wagner, 2012).

This research examines the impact of change on performance through the BSC tool. It is essential to have an effective management of change, to reach effective performance. Therefore, to achieve this objective, literature related to BSC and change are reviewed. Studies presenting the successful employment of BSC for valuable CM are also appraised. In the light of the literature review, hypotheses were formulated, then the research design and analysis followed.

## 2. Literature review

The literature review in this research is divided into three main sections. Section one presents the change management, organizational change and its impact on performance, section two reviews the BSC and its role in measuring the performance of companies using Key Performance Indicators (KPIs) and its relation with the LSPs business. Finally, section three presents the role of LSPs business sector in Egypt in order to cover all the relevant literature of this research.

### *2.1. Change Management (CM)*

The current economic environment has brought great opportunities for repositioning companies by change their synergies with their staff and establish common values and goals (Payyazhi, 2014). This potentially invigorating situation can drive the organization forward by improving productivity and generating new attitudes (Macadam, 1996). Many organizational events are classified as change, including restructuring, downsizing, mergers and acquisitions, strategic change, and cultural change. Change is defined as "an empirical observation of difference in form, quality, or state over time in an organizational entity" (Kaplan, 2012). In addition, there is a link between the levels of change readiness and successful management of change as stated by Edmonds (2011). Management can benefit and detriments just the same as staff, due to contributory factors such as lack of communication, change management experience, support mechanisms and resources. A conscious approach to getting ready for change leads to a greater probability of success, so planning needs to start long before the change is going to take place (Edmonds, 2011). In reality, change cannot be wholly managed; it will emerge naturally once a strategy for change is in place. Denton (2012) addressed change is the only constant, its consequences unforeseen and not subject to control or accurate prediction. Staying the same or going through too much change is courting disaster. A certain amount of instability or change is essential for survival, but one can never predict the exact effect of the change, thus it is recommended to stay flexible and be willing to manage without rigid control. He also stated that rigid rules, regulations, routines, strict lines of authority, rigid divisions, functions and

departments' responsibilities may help to maintain order, predictability, and even give one a sense of community, but they can impair your ability to respond in new ways (Denton, 2012).

Change Management (CM) as defined by Atilgan and McCullen (2011) is a generalized approach to organizational change in the work organization. The CM has been on overcoming resistance to change. Fincham and Rhodes (2005) define CM as the leadership and direction of the process of organizational transformation especially with regard to human aspects of overcoming resistance to change. Therefore, in order to be successful in the application of improvement techniques, it is important to recognize the human element including the resistance to, and, fear of change (Struckman and Yammario, 2003). Lines (2004) concludes that there is a strong positive relationship between participation and goal achievement and organizational commitment, and a strong negative relationship with resistance. Moreover, the concern of resistance to change in the CM can be used to dismiss potentially valid employee concerns about the proposed changes (Rafferty et al. 2013). Payyazhi (2014) stated that companies that are facing increasing pressure to sustain and surpass competition are required to proactively introduce various change interventions. Depending upon the complexity of the triggers from the internal and external business environment, business leaders may engage in doing things better through incremental improvements within the existing organizational structure and processes or introduce radical and transformational changes usually involving creation of new configurations with regard to systems, structure, process, technology, etc. Siriram, (2012) said that business process interventions are an example of one such transformational intervention to invigorate companies in response to stakeholder demands. However, Trkman, (2010) addressed that the failure rate of such transformational changes are high because they are high-intensity changes involving substantial changes to existing systems and processes that lead to ambiguity and uncertainty.

On the other hand, there are several studies (Lewis, 1951; Van De Venn and Poole, 1995 and Struckman and Yammario, 2003 and Farooq and Hussain, 2011) discussed the organizational change which is the managed system, process, and/or behavioral response over time to a trigger event. This focuses on change as a process or action. Many of the organizations competing in the fast-changing business environment are in a constant search for a robust strategy to survive the new global economic order, which makes achieving improved performance continuously imperative. The relationship between change interventions and organizational learning is examined. It seeks to identify the factors that affect organizational learning and its influences on organizational effectiveness (Payyazhi, 2014). Due to the growth of technology, modern organizational change is largely motivated by exterior innovations rather than internal moves. When these developments occur, the organizations that adapt quickest create a competitive advantage for themselves, while the companies that refuse to change are left behind (Scott et al., 2013). This can result in drastic profit and/or market share losses (Briody et al., 2012). Organizational change directly affects all departments from the entry-level employee to senior management. Regardless of the many types of organizational change, the critical aspect is a company's ability to win the buy-in of their organization's employees on the change (Hannan and Freeman, 1984). Effectively managing organizational change is a four-step process: recognizing the changes in the broader business environment, developing the necessary adjustments for their company's needs, training their employees on the appropriate changes and winning the support of the employees with the persuasiveness of the appropriate adjustments (Levin and Ward, 2011). Moreover, when it comes to ensure the achievement of the companies' goals and objectives, performance measures used to evaluate, control and improve production processes (Ghalayini and Noble, 1996).

Moreover, performance measures are used to compare the performance of different companies, plants, departments, teams and individuals, and to assess employees or even to compare performance between different periods. Pennington (2003) addressed the significance of performance measures, as it is the tool to control the goals and performance expectations for the company. In addition, they implement or develop appropriate metrics to interpret and describe quantitatively the criteria used to measure the effectiveness of the manufacturing system and its

many interrelated components. Tapinos and Meadows (2005) stressed on aligning companies' strategies with performance measurement systems. Several integrated frameworks of performance measurement have been developed such as the Balanced Scorecard (BSC), the Performance Prism, the Performance Pyramid, the Integrated Performance Measurement Methodology and the Cambridge Performance Measurement Methodology (Sabella et al., 2014). The evaluation of performance measurement has important impact on supporting the achievement of company's goals and the efficiency and effectiveness of its strategy (Ghalayini and Noble,1996). Comparing between companies in terms of size, operating environments and the rate of change determine that performance measurement's impact is more significant in large companies and in those operating in rapidly changing environments (Edmonds, 2011). According to Farooq and Hussain, (2011) they suggested a precise classification of change to be measured and monitored by the companies. They outlined four categories in order to measure the change in the business enterprises. Therefore, the four categories of change, which are technological, social, leadership, and structural change that will be considered in this research's questionnaire. Based on reviewing the relevant studies that focused on the four categories of change. It became useful to outline the questionnaire items that testing the research aim and objectives. Table 1 shows the description of each change perspective and highlights the main items of the questionnaire, which is aims at recognizing the role and effects of CM on the performance of LSPs in Egypt through using the Balanced Scorecard.

**Table 1. Change perspectives model and constructs.**

| Change perspectives | Description(s) | Survey constructs | Author(s) |
|---|---|---|---|
| Technological | • The efforts that affect the lead-time that it takes to acquire, process and finalize transactions have become a distinguishing feature in the buying decision that creates more autonomy for the stakeholders.<br>• It monitors the company responds to environmental changes promptly, the amount of time that it takes to acquire, process and finalize transactions has become a distinguishing feature in the buying decision and how far the company believes that cutting the time spent on a procedure attracts significant profits. | • The firm considers that cutting the time spent on a procedure attracts significant profits.<br>• The firm responds to environmental changes promptly.<br>• The amount of time that it takes to acquire, process and finalize transactions has become a distinguishing feature in the buying decision. | Collyer (2000)<br>Pennington (2003)<br>Lines (2004)<br>Christopher (2005)<br>Wang (2010)<br>Farooq & Hussain (2011)<br>Edmonds (2011)<br>Salam (2011)<br>Siriram (2012)<br>Briody et al (2012)<br>Denton (2012)<br>Rafferty et al (2013)<br>Sabella et al (2014)<br>Sarmah (2014)<br>Payyazhi (2014) |
| Social | • The involvement of employees in the implementation of a change and coping with innovative programs. This category reflects how far they are connected with the communicated change programs as well as how they feel that imparting knowledge about change plan reduces resistance among them.<br>• How computers for instance have decentralized work, which has created more autonomy for the employees, the company involves people in the implementation of a change and dealing with the emotional responses of those affected by the changes. | • Computers have decentralized work, which has created more autonomy for the workers here.<br>• The firm involves people in the implementation of a change.<br>• The pressure to cope up with innovative programs can be frustrated.<br>• Employees are connected with the communicated change program.<br>• The firm feels that imparting knowledge about change plan reduces resistance among employees.<br>• The management feels that it is necessary to deal with the emotional responses of those affected by the changes. | Skjoett-Larsen (1999)<br>Struckman & Yammario (2003)<br>Pennington (2003)<br>Lines (2004)<br>Wang (2010)<br>Farooq & Hussain (2011)<br>Kuo (2011)<br>Levin & Ward (2011)<br>Briody et al (2012)<br>Kaplan (2012)<br>Rafferty et al (2013)<br>Sabella et al (2014)<br>Sarmah (2014)<br>Payyazhi (2014) |

| | | | |
|---|---|---|---|
| Leadership | • How employees adapt themselves to the changed culture. How the managers have acquired requisite skills and abilities to implement change and employees have the opportunities to participate in the planning process.<br>• The top management in the company is able to identify the key individuals with enthusiasm and help to break down goals into specific responsibilities for each team member. | • The employees adapt themselves to the changed culture at the firm.<br>• The managers have acquired requisite skills and abilities to implement change.<br>• Employees are given opportunities to participate in the planning process.<br>• Top management in the company is able to identify the key individuals with enthusiasm.<br>• Change managers in the company help to break down goals into specific responsibilities for each team member. | Kunmaraswamy (2000)<br>Krauth et al (2005)<br>Farooq & Hussain (2011)<br>Briody et al (2012)<br>Kaplan (2012)<br>Rafferty et al (2013)<br>El-Nakib & ElZarka (2015)<br>Sabella et al (2014)<br>Payyazhi (2014) |
| Structural Change | • How the structural change has taken place in the company and the level of free communication across hierarchy is encouraged here to foster a feeling of togetherness.<br>• How people are educated about change through one-to-one discussion, presentations and other techniques in the company. | • Employees are educated about change through one- to- one discussion, presentations and other techniques in the company.<br>• Structural change has taken place in the firm.<br>• Free communication across hierarchy is encouraged here to foster a feeling of togetherness. | Hannan & Freeman (1984)<br>Ghalayini & Noble (1996)<br>Macadam (1996)<br>Fincham & Rhodes (2005)<br>Farooq & Hussain (2011)<br>Briody et al (2012)<br>El-Nakib & ElZarka (2015)<br>Jing et al (2014)<br>Payyazhi (2014) |

### *2.2. Balanced Scorecard (BSC): An Overview*

Kaplan and Norton (1992) provided a systemic framework that translates the strategic objectives of the organization into a coherent set of KPIs. Janeš (2013) mentioned that KPIs are determined based on experiences by organizations. Furthermore, an expanded range of KPIs may be confirmed or some of them may also be phased out. Thus, it is possible to find measurable perspectives of the current business processes, since the chosen KPIs are significant for determining the outcome of business processes in the future. Analysis of many qualitative and quantitative research studies about the implementation of KPIs, performed globally, showed the generally favorable influence of the KPI's on the fulfilment of the sustainable strategy. The performance evaluation of companies is the increasing emphasis on intangible measures and non-financial perspectives (Janeš, 2013). Therefore, Kaplan and Norton (2000) said the Balanced Scorecard (BSC) retains financial metrics as the ultimate outcome measures for company success, but supplements these with metrics from three additional perspectives - customer, internal process, and learning and growth- that proposed as the drivers for creating long-term shareholder value. The concept was developed as an innovative business performance measurement system, in the belief that "existing performance measurement approaches, primarily relying on financial accounting measures, were becoming obsolete" (Kaplan and Norton, 2004). This innovative approach considered the intangible or "soft" factors that had previously been considered as immeasurable, and as such, of little value. Figure 1 illustrates the balance scorecard (Kaplan and Norton, 2004).

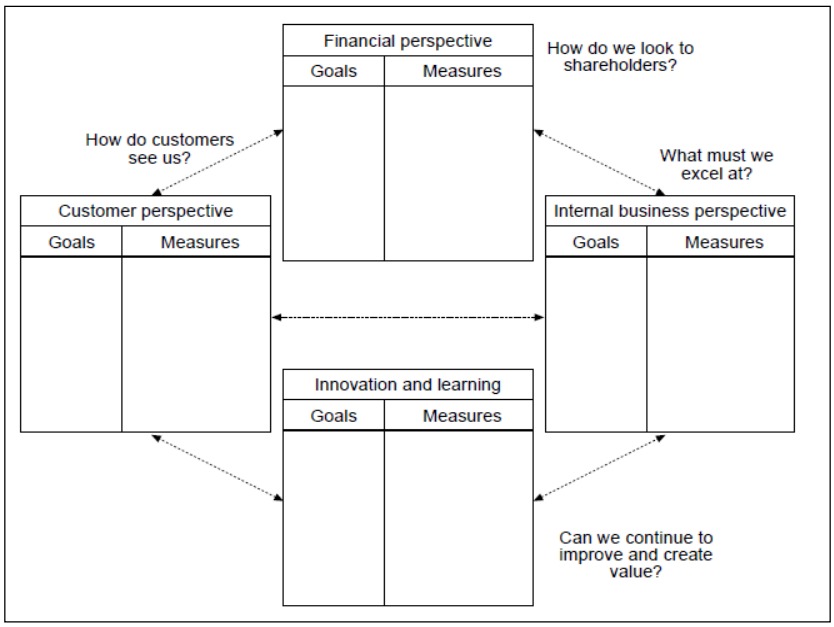


**Figure 1. The balance scorecard.**

Therefore, the four perspectives of BSC according to Kaplan and Norton (1992; 2000; 2004 and 2009) are financial, customer relations, internal business processes, and learning and growth that were highlighted in Table II, in addition, it contains the main points that will be considered in this research questionnaire. After reviewing the relevant studies that focused on the four categories of BSC. It became useful to outline the questionnaire items that testing the research aim and objectives. Table 2 shows the description of each BSC perspective and highlights the main items of the questionnaire.

According to Salem et al. (2012), the BSC has several advantages as well disadvantages. They stated that it is a strategic initiative that follow "best practices" methodologies cascade through the entire organization, in addition to increase creativity and unexpected ideas. BSC helps to align key performance measures with strategy at all levels of an organization and provides management with a comprehensive picture of business operations. Therefore, it is not just another project; it is a continuous cyclical management process. The methodology facilitates communication and understanding of business goals and strategies at all levels of an organization. Maximized Cooperation - Team members are focused on helping one another succeed. Moreover, BSC helps to reduce the vast amount of information the company IT systems process into essentials e.g. unique competitive advantage, reduced lead times, improved decisions and better solutions and improved processes (Salem et al., 2012). In terms of disadvantages, Murby and Gould (2005) and Salem et al. (2012) have remarked upon a perceived absence of rationality and logic in the original presentation of the scorecard that affect the LSPs business. They mentioned that the causality relationships between the areas of measurement in the BSC are unidirectional and too simplistic. In addition, the BSC neglects the time dimension. This critical point of the BSC starts from the assumption that the linkage between different points of time must be understood. Moreover, the lack of the validation and the reliance of BSC on few measures make a critical point of BSC. BSC lacks the mechanism for maintaining the relevance of defined measures. This leads to reducing the validation of BSC and the possibility to miss some critical measures. Furthermore, the lack of the integration between top-levels and operational levels' measures point out that BSC fails to identify performance measurements as two-ways process. The critical points of BSC are its lack of the integration between the top and operational levels, which may not lead to strategic coherence. This critical point refers to the ability of low levels to understand the implementation of BSC. Furthermore, the absence of the integration limits the use of BSC from the higher levels only. As a result, the strategic plans of the organization may fail because of the weakness of the coherence and the integration between the organization's levels (Salem et al., 2012).

**Table 2. Balanced Scorecard model and constructs.**

| BSC perspectives | Description(s) | Survey constructs | Author(s) |
|---|---|---|---|
| Financial | • The identification of a few relevant high-level financial measures. In particular, designers were encouraged to choose measures that helped inform the answer to the question "How do we look to shareholders?" Examples: cash flow, sales growth, operating income, return on equity.<br>• The time and accurate funding data will always be a priority, and managers will do whatever necessary to provide it. In fact, often there is more than enough handling and processing of financial data. | • The strategic measurement system of the firm is implemented.<br>• Firm's ability of to meet its financial targets last fiscal year.<br>• The performance monitoring of the firm through a cost-benefit analysis regularly.<br>• The top executives have an explicit financial strategy for each business unit.<br>• Financial targets are clearly communicated.<br>• The firm makes efforts to include additional financial data to satisfy shareholders. | Kaplan & Norton (1992)<br>Kaplan & Norton (2000)<br>Chapman et al. (2003)<br>Kaplan & Norton (2004)<br>Lowson (2007)<br>Kaplan & Norton (2009)<br>De Waal (2010)<br>Levin & Ward (2011)<br>Kaplan (2012)<br>Forslund (2012)<br>GAFI (2013 |
| Customer | • The identification of measures that answer the question "How do customers see us?" Examples: percent of sales from new products, on time delivery, share of important customers' purchases, ranking by important customers.<br>• Poor performance from this perspective is thus a leading indicator of future decline, even though the current financial picture may look good. | • Firm's strategies are provide specific customer needs.<br>• The feedback from customer is the source to understand how products or services can be improved.<br>• The firm aims at providing best service at the reasonable price.<br>• Shareholders are considering the firm as a financially stable. | Kaplan & Norton (1992)<br>Kaplan & Norton (2000)<br>Kaplan & Norton (2004)<br>Binder & Clegg (2007)<br>Kaplan & Norton (2009)<br>El-Nakib (2011)<br>Levin & Ward (2011)<br>Briody et al. (2012)<br>Kaplan (2012)<br>GAFI (2013) |
| Internal Business Process | • The identification of measures that answer the question "What must we excel at?" Examples: cycle time, unit cost, yield, new product introductions.<br>• The Internal Business Process metrics based on this perspective allow the managers to know how well their business is running, and whether its products and services conform to customer requirements. | • The firm has a system to measure various Internal Process Performances and measuring customer loyalty is an area of strategic importance.<br>• The business process as a whole is good to ensure sustained profitable operations in the company.<br>• The firm has an efficient Process Infrastructure, Code of Ethics and suitable Business support processes.<br>• The adoption of technological changes. | Kaplan & Norton (1992)<br>Kaplan & Norton (2000)<br>Quelin & Duhamel (2003)<br>Kaplan & Norton (2004)<br>Lowson (2007)<br>Kaplan & Norton (2009)<br>Trkman (2010)<br>Levin & Ward (2011)<br>El-Nakib (2011)<br>Kaplan (2012)<br>Svensson & Wagner (2012) |
| Learning and Growth | • The identification of measures that answer the question "How can we continue to improve, create value and innovate?. Examples: time to develop new generation of products, life cycle to product maturity, time to market versus competition.<br>• It includes employee training and corporate cultural attitudes related to both individual and corporate self-improvement. In a knowledge-worker organization, people are the main resource. In the current climate of rapid technological change, it is becoming necessary for knowledge workers to be in a continuous learning mode. | • The firm promotes and focus on individual learning, growth, training and innovation.<br>• The expectations of the management out of a training program, is clearly communicated to the trainee to help him train better.<br>• Employees with limited skills and knowledge are considered to be developed for better performance.<br>• The expectations of the management out of a training program, is clearly communicated to the trainee to help them train better. | Hannan & Freeman (1984)<br>Kaplan & Norton (1992)<br>Kaplan & Norton (2000)<br>Chapman et al. (2003)<br>Quelin & Duhamel (2003)<br>Kaplan & Norton (2004)<br>Binder & Clegg (2007)<br>Lowson (2007)<br>Kaplan & Norton (2009)<br>Levin & Ward (2011)<br>El-Nakib (2011)<br>Forslund (2012)<br>Kaplan (2012) |

Moreover, there are several concerns regarding the failure of the BSC application of the LSPs in particular that can be summarized as follows: the validity of the objectives selected to track the observed cause and effect relationships upon which the scorecard relies; the BSC's reliance on performance measures which are not rooted in the LSP company, but which are formulated and distributed in a hierarchical, top-down manner, reducing the likelihood of company buy-in; and the BSC model's neglected the external competition and/or technological advance, which may introduce uncertainty in terms of risk, and which may threaten or invalidate the present strategy

of the LSP company. In addition, a survey by Murby and Gould (2005) applied the BSc on the LSPs performance presented that 78 per cent of companies that have implemented strategic performance measurement systems do not assess carefully the links between strategies and performance measures; 71 per cent have not developed a formal causal model or value-driver map; 50 per cent do not use non-financial measures to drive financial performance; 79 per cent have not attempted to validate the linkages between their non-financial measures and future financial results; and 77 per cent of organizations with a balanced scorecard place little or no reliance on business models and 45 per cent found the need to quantify results to be a major implementation problem (Selviaridis and Spring, 2007).

On the other hand, the role of BSC in outlining the LSPs logistics performance is significant. Rajesh et al. (2012) highlighted on outsourcing the logistics and supply chain operations through LSPs to be one of the most significant attributes to companies in the global market competition. Logistics outsourcing became a way to increase company's profitability and to sustain their competitive advantages (Banomyong and Supatn, 2011). The increasing focus on core competencies opened up many business opportunities and challenges for LSPs. Moreover, the importance of outsourcing functions for LSPs is to be considered for performance management in all supply chain operations and activities. The switch from domestic competition to a global competition has underscored the evolving nature of strategic management systems and the pertinence of research into the extent to which performance measures achieve a degree of balance for LSPs (Krauth et al., 2005). It is evident that there is a need for a framework for implementing the strategic performance measurement system for LSPs. Rajesh et al. (2012) has also emphasized the fundamental role of the four dimensional perspectives of the BSC for small, medium and large scale LSPs. Nevertheless, there has been minimal empirical strategic management research concerned with the extent and manner of performance measurement of LSPs (Forslund, 2012). This is despite the labor, resource and infrastructure intensive nature of most LSPs operations. Krauth et al. (2005) stated that, the increasing focus on core competencies opened up many business opportunities for LSPs who are under great pressure e.g. the day-to-day operations and the long-term strategic objectives. A good insight in performance information and therewith steering mechanisms for planning is important. Companies focused on financial indicators and neglected the non-financial and non-numerical values, which can give valuable information. Such indicators though are more difficult to measure and to compare (De Waal, 2010). According to De Waal (2010), he explained the performance management systems were explained as the formal, information-based routines and procedures managers use to maintain or alter patterns in organizational activities. Consequently, these systems focus on using financial and non-financial information that influence managerial decision making processes. Moreover, an increasing number of profit and non-profit organizations are implementing performance management systems such as the BSC to obtain better organizational performance (Janeš, 2013). The revolution of technology is accelerating a global transformation of LSPs competitive environment. Thus, traditional organizational management is not an appropriate strategy for such environment (Rajesh et al., 2012). In addition, LSPs must sustain their competitive competences and advantages through continuous enhancement and innovation of their performance (Kuo, 2011). Ittner and Larcker (2003) found that many LSPs mistake the BSC as an off-the-shelf checklist. A lack of understanding of the nonfinancial areas of performance that might advance strategy can allow self-serving managers to choose and manipulate measures. Although the BSC has many advocates, support is by no means universal or unqualified. Murby and Gould (2005) have remarked upon a perceived absence of consistency and logic in the original presentation of the scorecard. Others have remarked upon specific issues that may result in the failure of the scorecard to live up to its perceived potential for implementation. Strategy, success or value-creation mapping is a way of facilitating agreement between managers on those non-financial performance drivers that have the greatest impact on the financial outcome. Sarmah (2014) addressed the difficulties that most companies have in trying to achieve this, with fewer than 30 per cent of companies developing causal models. Moving to this stage requires a shift in approach to planning and performance and time to think and develop rigorous causal models and performance measures. In addition, Murby and Gould (2005) found that organizations adopting

a causal business model experience both high levels of managerial satisfaction and return on assets. With the potential for economic benefits dependent on getting a balanced scorecard implementation right, it is perhaps surprising that so few managers devote time to this area.

### *2.3. The LSPs business sector in Egypt*

The LSPs sector is one of the main pillars of economic growth in Egypt that encompasses 4.1% of GDP (GAFI, 2013). Logistics and transportation networks are considered the arteries which economic and social activities flow through, where all sectors of the national economy depend on the services and facilities of this sector to link both production and consumption markets together, besides having the access to the needs of raw materials and services and operating (GAFI, 2013). Therefore, LSPs refer to external suppliers that perform all or part of a company's logistics functions (Liu and Lyons, 2011). LSPs are categorized into different forms based on the nature of the provided services such as transportation, warehousing/distribution, forwarders, financial and information (Xing et al., 2011). When manufacturers delegate a LSP to perform some or all of the logistics activities, this action is known as outsourcing i.e. purchasing a logistics service from an outside firm instead of performing it in-house (Banomyong and Supatn, 2011). Shrinking product life cycles and a high rate of technological obsolescence has increased the pressure on supply chain management, with the new emphasis on supply chain agility and the need to reduce non-value adding costs (Childerhouse, et.al. 2003). LSPs have come forward to provide the logistics resources and skills needed; thereby reducing the overall costs (Binderand and Clegg, 2007). The greatest opportunities are likely to fall on solution providers, who have the competence to address the growing demands of their outsourcing customers (Jharkharia and Shankar, 2007). Given the predicted growth in LSPs business ratios, particularly with respect to value added services and management and/or information based services it can be assumed that LSPs are naturally inspired to become solution providers (SAP, 2006; Wang, 2010). Moreover, the ability of transport and distribution providers to migrate to solution provision has been shown to be constrained by their lack of resources and skills (Binder and Clegg, 2007). The opportunities for transport and distribution providers are either to establish true economies of scale in a limited set of services and/or a broad set of services within a constrained geography (Murphy and Wood, 2008). As a result of the increased demand of manufacturers for more sophisticated and highly experienced logistics partners, LSPs evolved from their simple forms (transportation-based, warehousing-based, etc.) to a more complex form to integrate all the simple forms but in different complexity degrees (Marasco, 2008). The role of logistics operator or transport service provider has seen many changes; they should be able to provide other complementary services in addition to the classical transport means, and as a result the industry witnessed mergers, alliances and integration of services (Binderand and Clegg, 2007; Salam, 2011). Carriers had to consider bigger and speedy ships, alliances, transit hubs and feedering strategy and freight forwarders have to think intermodaly towards supply chain management, including assembly, packing, labelling, cargo consolidation, or what is called added value services. Figure 2 illustrates this point (Hoyer, 2011).

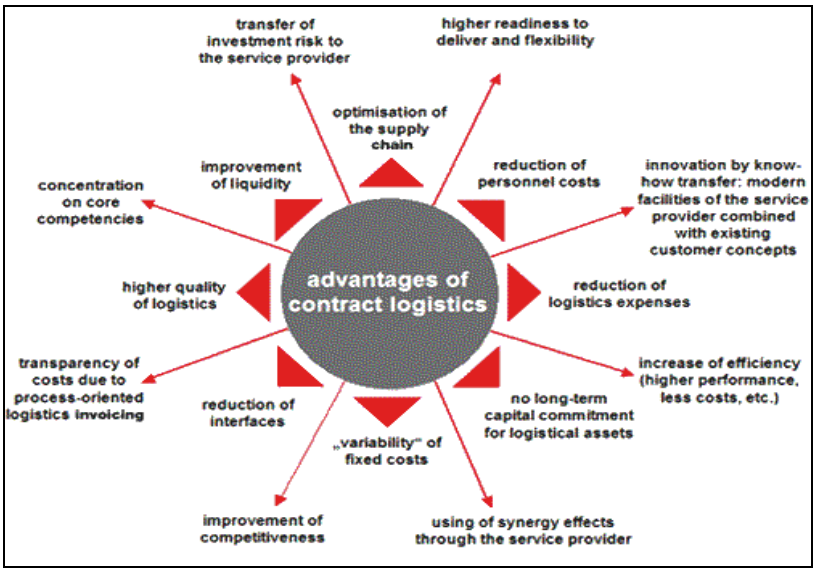


**Figure 2. Benefits of outsourcing logistics.**

As it is presented in Figure 2, LSPs are taking over the planning and realization of complex logistical service packages on behalf of companies. It is providing a significant support to companies with regard to planning, steering, implementation and control of logistics procedures. This applies not only for procurement and production logistics but also for distribution logistics. Therefore, LSPs confronts the participating partner with complex problem scenarios. In some cases, a complete reassessment of operating methodology may be considered including consequences in relation to employment law (Hoyer, 2011). The benefits of delegating an LSP to perform the company's logistics activities are many, such as: focus on the companies' core activities, asset reduction, reduced cycle time/improved responsiveness, supply-chain integration, logistics operations cost reduction, expanded geographic coverage, operational flexibility, increase speed to market, foster innovation, improve quality and workforce reduction (Quelin and Duhamel, 2003; Jharkharia and Shankar, 2007). Although there are many benefits of utilizing LSP, there are also some drawbacks (Nemoto and Kunitachi, 2002). It is not easy to establish a reliable and cost-effective partnership between the firm and the LSP (Kunmaraswamy et al., 2000). In order to establish reliable partnership, efforts should be made in two stages; LSP selection and contract signing. If firms do not select a reliable LSP, they may suffer from economic losses (Marasco, 2008). It is not helpful for firms to judge the ability of the LSP during the selection stage owing to the issue of information asymmetry between the firm and the LSP (Wang, 2010). To solve this problem, complex selection procedures are necessary to identify their ability (Bourlakis and Melewar, 2011). Additionally, it is important to establish a system to maintain their reliable partnership once the LSP is selected (Bourlakis and Melewar, 2011). Information sharing and apparent risk sharing between the parties is always required. Concerning information sharing, it is needless to say that smoother information exchange will result in a more efficient logistics activity (Banomyong and Supatn, 2011). However, related costs may increase if some information essential to the firm would leak (Marasco, 2008). Therefore, the commitment of each party in information sharing is required, and a scheme to ensure these commitments has to be prepared (Nemoto and Kunitachi, 2002). Constructing a risk-sharing scheme between the firm and the LSP is critical in establishing reliable partnerships (Murphy and Poist, 1998). Some of the risks involved in using LSP are demand risk, inventory risk, and financial risk, among others (Ron et al., 2011). The questions are on who will take these risks, and how to compensate the risk holders (Skjoett-Larsen, 1999). Gain sharing is a popular example of a rewarding scheme in which the LSP provider holds part of the risks, and then is given incentives based on the increase of the firm's profit (Jayaram and Tan, 2010). This risk-sharing method is apparently some sort of a division of work between the firm and the LSP (Nemoto and Kunitachi, 2002). Establishing good risk sharing also involves transaction costs, although the associated costs can be reduced through the cumulative experiences (Murphy and Poist, 1998). Table I presents categories of risks in logistics outsourcing by Chuanxu and Regan (2003). In addition, it is very

vital to mention the issue of loyalty (Jayaram and Tan, 2010). Despite all the hype about partnerships, any LSP is a hired hand (Marasco, 2008). The LSP employees' loyalties belong to the LSP. The in-house staff, on the other hand, is considered as corporate soldiers whose pledge of commitment belongs primarily to the company and this will affective positively on the change initiatives in LSP companies (Banomyong and Supatn, 2011). As stated by Murphy and Poist (2000) and Ran (2009) in order to be competent in today's challenging marketplace, LSPs should aim for a balanced perfection in the domain of service portfolio, operational backbone and financial performance. Logistic services' offering is divided into four dimensions: geographic coverage, service offering, focus and asset base. If logistics service providers launch their service portfolio according to the previous simple dimensions, a strong position in the logistics market could therefore be well established.

On the other hand, logistics management is an integrating function, which coordinates and optimizes all logistics activities, as well as integrates logistics activities with other functions, including marketing, sales, manufacturing, finance, and information technology. However, other factors such as customs inspection or the level of support from the banking and insurance sectors also have a notable influence on a country's logistics abilities (Christopher, 2005; CSCMP, 2014). In addition, efficient logistics is a necessary condition for a country's overall development and economic growth (Lowson, 2007). In that context, a good way to measure a country's logistics capability is the Logistics Performance Index (LPI). The LPI is a benchmarking tool created to help countries identify the challenges and opportunities they face in their performance on trade logistics for improvement. According to LPI criteria (World Bank, 2014), Egypt lags slightly behind the regional average and is clearly behind the EU. Egypt's biggest weaknesses according to the LPI are in the Infrastructure 2.86 and Customs 2.85 categories (World Bank, 2014). IFC (2009) and World Bank (2014) stated that, there is a clear relationship between logistics performance, lead-times, and export performance. World Bank (2014) has shown that a 10 percent reduction in overall lead-time results in a 4.3 percent export increase in countries in the Middle East and North Africa (MENA). Moreover, there is a clear link between the performance of a country's logistics sector and its overall level of development (IFC, 2011) and (World Bank, 2014). The LPI is positively correlated with the country's Gross Domestic Product (GDP) per capita at Purchasing Power Parity (PPP). Countries with a high LPI typically have a high GDP-PPP (World Bank, 2014). Figure 3 reveals the status of the logistics sector by comparing the LPI criteria between Egypt, EU and MENA countries (IFC 2009 and 2011).

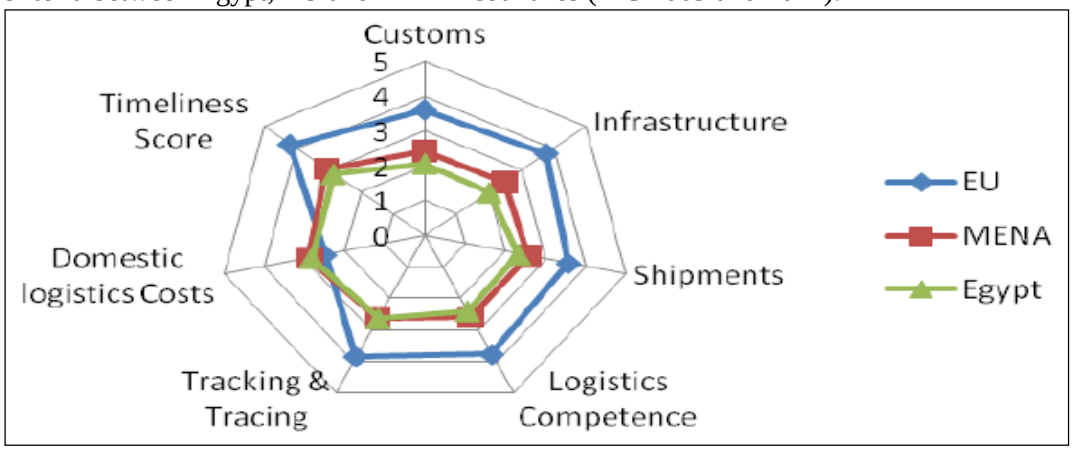


**Figure 3. Comparing Egypt and other countries based on LPI criteria.**

The logistics services sector is not only important for private sector and economic development, but it is equally important in and of itself as an economic sector with significant growth and investment potential (Banomyong and Supatn, 2011). In addition, the LSPs sector in Egypt represents a multi-billion dollar market, with planned investments of $7.5 billion by 2015 (IFC, 2011 and GAFI 2013). Thus, strengthening the Egyptian logistics sector has numerous benefits. By having an efficient and competitive logistics industry, Egypt will be able to increase its exports and reach different markets with high quality standards. Moreover, having strong and strategic

policies in place will attract further investment into the sector, ensuring its sustainability. Furthermore, this sector would open up new opportunities, attract new players and help to increase the income of all stakeholders. The significant development of the LSPs industry in developed nations was due to the rising concern of business managers to relieve frustration in managing non-core competencies. Logistics outsourcing enabled corporations to focus on core competencies, which resulted in high quality, and low priced products. Therefore, it was necessary to draw the attention of the Egyptian market towards the crucial role that LSPs can play for the prosperity of the Egyptian economy especially that the quality of the Egyptian products has been deteriorating and their prices have been increasing constantly. The LSP industry has rapidly grown in developed countries while in Egypt it is still in its infancy. The majority of the LSPs have been providing logistics activities since 1998 (El-Nakib, 2011). The reason of the high prices of Egyptian products is attributed to the mismanagement of the supply chain activities that results in high production cost, which is reflected on the prices of products (El-Nakib, 2011). LSPs would reduce time and effort for manufacturers who will be better able to focus on core activities. The know-how of logistics activities does not exist in most Egyptian manufacturers, which affects their operation as a whole. Dealing with LSPs who are specialized in managing and performing their activities will no doubt improve the products' quality and reduce the total production cost for Egyptian manufacturers. The final price of the product is highly affected by logistics costs, particularly transportation. Therefore, outbound transportation is the most outsourced logistics activity, which aims at reducing transportation cost (El-Nakib, 2011). The Egyptian customers do not value services as much as tangible products, which makes the provision of logistics services a challenging business for providers. The marketing of logistics services is more complex than tangible products due to the unawareness of manufacturers of the role of LSPs and the lack of effective marketing tools. The Egyptian customers have a high level of uncertainty toward the acclaimed commitments of LSPs. In order for a LSP to successfully achieve cost reduction for his clients and convince them of the benefits of dealing with LSPs, assets must be fully deployed and operated with full capacity 90% of the year (El-Nakib and ElZarka, 2015).

El-Nakib (2011) stated that there is a big gap between Egyptian LSPs and foreign LSPs. The foreign LSPs are already many steps ahead of the Egyptian LSPs whether capital or experience wise. Therefore, in order to develop the LSP industry in Egypt, it requires the cooperation of providers, users and policy makers. Information exchange between the previously mentioned parties will enhance their capabilities to operate more effectively in an integrated economic environment (El-Nakib and ElZarka, 2015). The significance of the role of LSPs is starting to capture the attention of manufacturers due to the expansion of the markets served and the increasing scale of production. The outsourcing function is not a new trend that has lately appeared in the Egyptian industries as evidenced by the fact that the majority of manufacturers have been practicing the outsourcing function since the establishment of their factories. Not only has delegating performing logistics activities to LSPs improved the activities but has also improved other areas such as customer satisfaction and system development (El-Nakib, 2011). The majority of LSPs implement provider/client joint implementation programmes in order to guarantee full integration between the two parties and complete understanding of the expectations of each party as well as the ways to respond to these expectations. Using LSPs would give companies the chance to work better, create job opportunities for providers, work more, and earn more profits as the level of production improves and finally economic development will take place. Poor infrastructure, which is highly noticed, whether in roads, ports or equipment hinders the smooth operation of LSPs, which leads to the non-fulfillment of the commitments made to clients. Regardless of the size of companies, the logistics department is not given the right significance since many manufacturing companies do not have a logistics department to manage the different logistics activities in their supply chains. The majority of the manufacturing companies are not willing to extend their outsourcing activities in the near future. The reasons are the lack of reliable LSPs and the manufacturers' unawareness of the benefits. Quality understanding is well established whether for providers or users due to their desire to enter the global market, which requires higher quality standards (El-Nakib and ElZarka, 2015).

## 3. Methodology

After reviewing the literature, it has been proven that BSC is adopted to monitor the performance of companies for continuous development and improvements. Due to the lack of empirical studies in examining the relation between change and performance of LSPs, nevertheless in Egypt, this research would follow the exploratory approach to perform this examination using the BSC as a framework for performance measurement. The research aimed at investigating the role and effects of CM on the performance of LSPs in Egypt through using the BSC. Therefore, the research question is formulated as follows: “What is the impact of Technological, Social, leadership and Structural Changes on the performance of LSPs in Egypt?”. To answer this question the following hypotheses are outlined as follow: H1: There is significant relationship between Change and Egyptian LSPs Performance; H1a: There is significant relationship between Technological Change and LSPs Performance; H1b: There is significant relationship between Social Change and LSPs Performance; H1c: There is significant relationship between Leadership Change and LSPs Performance and H1d: There is significant relationship between Structural Change and LSPs Performance. The purpose of the questionnaire is to test the relation and the impact of change on the performance of LSPs in Egypt with using the BSC. The change elements serve as the independent variables that influence the performance of LSPs, which is the dependent variable presented through the four main components of the BSC.

The sample frame for this research consisted of 450 LSPs companies listed in the Egyptian International Freight Forwarding Association (EIFFA) directory. The pilot test was conducted by sending the questionnaire to a randomly selected sample of 40 companies from EIFFA directory. The participants were requested to complete the questionnaire and comment on its contents. The researcher received 28 completed questionnaires from the pilot sample, and based on the respondents’ feedback, the researcher omitted and modified some items after this test as the pilot revealed that it was unclear e.g. There was a doubt whether the way the respondents were asked would correctly measure the intended research objectives. Respondents were asked to indicate whether the given features exist in their company using the Likert scale (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree). If a respondent answered "strongly agree" to the statement "A centralized business hierarchy is more efficient than a decentralized one", this simply indicates he is strongly in agreement that a centralized business hierarchy is better and this does not necessarily mean such a hierarchy exists in his organization. Thus, this item of the questionnaire was deleted in order to assure study design. Conducting a pilot study does not guarantee success in the main study, but it does increase the likelihood of success. The online questionnaire was then sent out to the senior managers of all the companies listed in the EIFFA directory. Telephone calls were made to the senior managers to follow up and clarify the purpose of the research to encourage their participation. The questionnaire had 40 statements that was completed by 279 Egyptian LSP companies during the period from September 2013 to February 2014 resulting in a response rate of 62%. The first section of the questionnaire included demographic questions about the company name, size and location. Moreover, the respondent details such as their years of experience and their job position. The second section of the questionnaire covered the four elements of BSC i.e. financial, customer, internal process, and learning and growth perspectives. The third section covered the five elements of change: technological, social, leadership, and structural change. The questionnaire was based on five-point Likert scale with choices ‘strongly agree’, ‘agree’, ‘neutral’, ‘disagree’ and ‘strongly disagree’. Furthermore, the reliability measures presented in the finds and data analysis results section showed that the reliability of the questionnaire instrument was “excellent”.

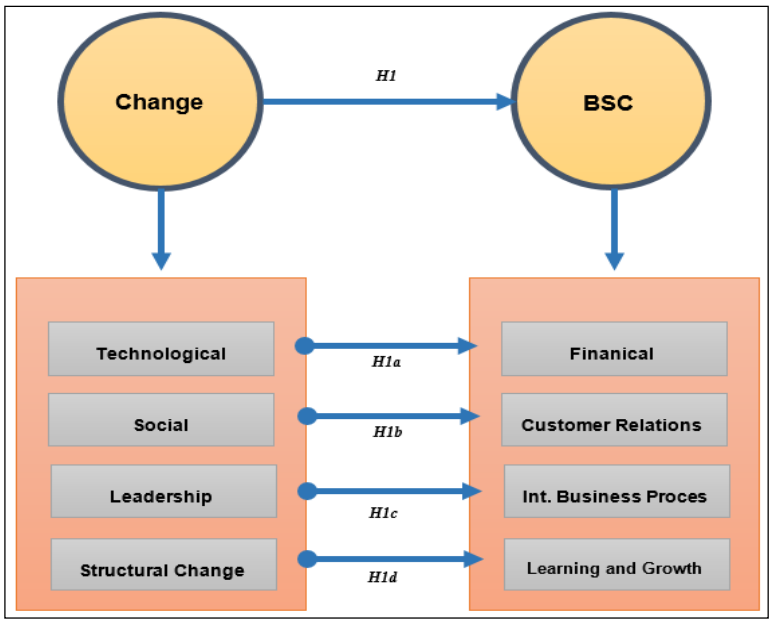


**Figure 4. Research conceptual model.**

## 4. Findings and data analysis

Several stages have been conducted to analyze the data of the questionnaire. The reliability and validity of the measurement of responses are evaluated and established. The reliability and validity of the instrument was computing Cronbach alpha. The value of Cronbach alpha for the entire instrument was 0.97 and this shows excellent result. In addition, the normality tests are used to determine if a data set is well modeled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed (Janes, 1999). However, Table 3 presents the tests of normalities for the questionnaires responses. Tests of normality include Kolmogorov–Smirnov and Shapiro–Wilk tests have the best power for a given significance (Razali and Wah, 2011). When P-value was less than (0.05) thus, the responses were non-normal and this will lead to use non-parametric tests such as the Pearson's chi-squared test as it presents in Table 4.

**Table 3. Tests of normalities.**

| Perspectives | Items | Kolmogorov-Smirnova | | Shapiro-Wilk | |
|---|---|---|---|---|---|
| | | Statistic | P-value | Statistic | P-value |
| Financial (F) | F1 | 0.252 | 0.000 | 0.866 | 0.000 |
| | F2 | 0.225 | 0.000 | 0.854 | 0.000 |
| | F3 | 0.22 | 0.000 | 0.895 | 0.000 |
| | F4 | 0.225 | 0.000 | 0.854 | 0.000 |
| | F5 | 0.162 | 0.000 | 0.887 | 0.000 |
| | F6 | 0.225 | 0.000 | 0.854 | 0.000 |
| Customer Relations (C) | C1 | 0.215 | 0.000 | 0.901 | 0.000 |
| | C2 | 0.208 | 0.000 | 0.906 | 0.000 |
| | C3 | 0.197 | 0.000 | 0.886 | 0.000 |
| Internal Business Processes (P) | P1 | 0.175 | 0.000 | 0.907 | 0.000 |
| | P2 | 0.163 | 0.000 | 0.908 | 0.000 |
| | P3 | 0.147 | 0.000 | 0.896 | 0.000 |
| | P4 | 0.236 | 0.000 | 0.885 | 0.000 |
| | P5 | 0.201 | 0.000 | 0.905 | 0.000 |
| | P6 | 0.285 | 0.000 | 0.86 | 0.000 |
| | P7 | 0.235 | 0.000 | 0.875 | 0.000 |
| Leaning and Growth (LG) | LG1 | 0.191 | 0.000 | 0.878 | 0.000 |
| | LG2 | 0.295 | 0.000 | 0.846 | 0.000 |
| | LG3 | 0.324 | 0.000 | 0.832 | 0.000 |
| | LG4 | 0.16 | 0.000 | 0.912 | 0.000 |
| | LG5 | 0.27 | 0.000 | 0.863 | 0.000 |
| | LG6 | 0.228 | 0.000 | 0.827 | 0.000 |
| Technological (T) | T1 | 0.209 | 0.000 | 0.871 | 0.000 |
| | T2 | 0.187 | 0.000 | 0.883 | 0.000 |
| | T3 | 0.249 | 0.000 | 0.885 | 0.000 |
| Social (SO) | SO1 | 0.182 | 0.000 | 0.906 | 0.000 |

| | | | | | |
|---|---|---|---|---|---|
| | SO2 | 0.179 | 0.000 | 0.912 | 0.000 |
| | SO3 | 0.216 | 0.000 | 0.878 | 0.000 |
| | SO4 | 0.286 | 0.000 | 0.853 | 0.000 |
| | SO5 | 0.244 | 0.000 | 0.876 | 0.000 |
| | SO6 | 0.221 | 0.000 | 0.896 | 0.000 |
| Leadership (L) | L1 | 0.209 | 0.000 | 0.885 | 0.000 |
| | L2 | 0.245 | 0.000 | 0.862 | 0.000 |
| | L3 | 0.333 | 0.000 | 0.815 | 0.000 |
| | L4 | 0.289 | 0.000 | 0.811 | 0.000 |
| | L5 | 0.251 | 0.000 | 0.883 | 0.000 |
| | L6 | 0.226 | 0.000 | 0.891 | 0.000 |
| Structural Change (SC) | ST1 | 0.318 | 0.000 | 0.838 | 0.000 |
| | ST2 | 0.197 | 0.000 | 0.871 | 0.000 |
| | ST3 | 0.212 | 0.000 | 0.902 | 0.000 |

The hypothesized relationships are tested by Pearson's chi-squared test is a statistical test applied to sets of categorical data to evaluate how likely it is that any observed difference between the sets arose by chance (Nunnally, 1978). It is suitable for unpaired data from large samples (Hulland, 1999). According to Table 4, there is strong relationship between the impacts of change perspectives on the four perspectives of the BSC in the LSPs sector in Egypt. It shows the goodness of fit statistics for the research hypotheses. However, it notices that the technology it slightly less influential on the learning and growth. This is due to how fast and flexible the LSPs in Egypt accepting and adopting the new technological practices in their business.

**Table 4. Chi-Square tests.**

| Perspectives | Value | P-value(2-sided) |
|---|---|---|
| T → F | 381.763 | 0.000 |
| T → C | 470.352 | 0.000 |
| T →P | 452.126 | 0.000 |
| T → LG | 316.784 | 0.000 |
| SO → F | 668.215 | 0.000 |
| SO → C | 765.426 | 0.000 |
| SO → P | 707.971 | 0.000 |
| SO → LG | 634.211 | 0.000 |
| L → F | 709.642 | 0.000 |
| L → C | 594.896 | 0.000 |
| L → P | 529.125 | 0.000 |
| L → LG | 538.671 | 0.000 |
| ST → F | 705.784 | 0.000 |
| ST → C | 630.543 | 0.000 |
| ST → P | 734.822 | 0.000 |
| ST → LG | 690.883 | 0.000 |

Table 5 provides Spearman's correlation matrix, which shows the significant relationship between the change on the performance of Egyptian LSPs. Spearman's correlation coefficient is a nonparametric measure of statistical dependence between two variables. It assesses how well the relationship between two variables can be described using a monotonic function (Hulland, 1999). In addition, in the coefficient of correlation, $r > 0$ indicates positive relationship and $r < 0$ indicates negative relationship while $r = 0$ indicates no relationship (or that the variables are independent and not related). If $r = +1.0$ describes a perfect positive correlation and $r = -1.0$ describes a perfect negative correlation. Closer the coefficients are to +1.0 and -1.0, greater is the strength of the relationship between the variables (Razali and Wah, 2011). According to Table 5, therefore, hypothesis 1 is accepted. Analysis also shows significant relationship between the four change areas; technological, social, leadership and structural change with the performance of the LSPs that make H1a, H1b, H1c and H1d are accepted. This implies that BSC perspectives and change positively influence the performance of Egyptian LSPs. If BSC is used properly, change will be effective leading to effective and high performance.

**Table 5. Spearman's correlation matrix.**

| Change perspectives \ BSC perspectives | | Financial (F) | Customer Relations (C) | Internal Business Processes (P) | Learning and Growth (LG) |
|---|---|---|---|---|---|
| Technological (T) | Correlation Coefficient | .565 | .267 | .491 | .347 |
| | P-value | 0.000 | 0.000 | 0.000 | 0.000 |
| Social (SO) | Correlation Coefficient | .806 | .725 | .550 | .708 |
| | P-value | 0.000 | 0.000 | 0.000 | 0.000 |
| Leadership (L) | Correlation Coefficient | -0.007 | .423 | .440 | -0.044 |
| | P-value | 0.904 | 0.000 | 0.000 | 0.463 |
| Structural Change (SC) | Correlation Coefficient | .182 | -.200 | -0.033 | .249 |
| | P-value | 0.002 | 0.001 | 0.58 | 0.000 |

However, some items had inverse relationships, which is a relationship between two variables such that they move in opposite directions. In an inverse correlation with variables L and F for instance, as L increases, F would decrease; as L decreases, F would increase. In statistical terminology, an inverse correlation is denoted by the correlation coefficient r having a value between -1 and 0, with r = -1 indicating perfect inverse correlation. Furthermore, the relationship between the leadership with financial and learning and growth perspectives. In addition to the relationship between structural change with customer relations and internal business processes.

The inverse relationship between the leadership with financial and learning and growth perspectives in the Egypt's LSP sector may be justified as many managers are struggling and facing difficulties in the uncertain business environment in Egypt since the revolution in 2011. For example, the decisions of expanding their business in new markets in the region may not be successful or they spent over inefficient investments, which could not be profitable and affected the financial position of their companies (El-Nakib and ElZarka, 2015). Moreover, the lack of vision and strategy due to the circumstances in the country as well as the incompetent programs of training and practical workshops which can be the main reason of the inverse relationship of leadership and learning and growth. On the other hand, the inverse relationship between structural change with customer relations and internal business processes and weak relation with the financial and the learning and growth variables. There are number of reasons that justifies this inverse relationship. Apart from the amount of resistance that might be the main reason after experiencing a lot of turbulences in the LSPs business since the 2011 revolution in the name of change. The news of change can invoke fear among employees. They will feel afraid of not being able to fulfil the new proposed changes to work practices that are being imposed. Employees may begin to question the future of their job, which shall cause much discomfort. Thus, employees resist change due to their concern, pessimism and different personal ambitions. In addition, Lack of Input into the change Individuals tend to resist change where they play not part in change. The idea of not knowing the change can cause a rift between the employees and management. Moreover, the lack of resources and bad resource allocation, following traditional hierarchical structure, communication between head of departments and employees, lack of or bad leadership and the lack of preparing new roles and the cultural issues are all affecting the feasibility of structural change and its impact on the four BSC perspectives in the Egyptian LSPs sector.

## 5. Discussion and conclusions

In order to assess performance, companies need to realize where they are, where they are going and what needs to be done to get to where they want to be in the future and what are the influential issues that affect their progress. Without reliable performance measurement tools, it is impossible to address changes that face the business, as change effort offers both short-and long-term impact on companies' performance. Therefore, BSC has proven to be a powerful mean of translating strategy into action and ensuring that companies focus on what really matters to their success. It helps managers to clarify the value proposition as well as the drivers and enablers of success and coping with the changes in the Egyptian business sector. The primary aim of this study was to investigate the impact of change on the LSPs performance in Egypt. In particular, the study examined and analyzed the BSC as a tool of measuring performance, which has proven a remarkable strong relation between the two variables. Furthermore, statistical analysis has

substantiated the influence of change on the LSP's performance and reveals significance of research. In addition, it provided a visual framework that integrates the companies' strategic objectives across these four perspectives. As findings of the research presented that Egyptian LSPs companies have incorporated the dimensions of BSC as a performance measurement tool and use it to create change and improve performance. Another significant outcome of the research, is the evidence that change, is highly influencing the internal business processes for the Egyptian LSPs, then the customers relations, and the financial performances. Therefore, this result supports the argument that performance is affected by change using BSC. The contribution of this research is measuring and evaluating day-to-day business operations from the following four perspectives: finance, customer, internal business process, and learning and growth, to trigger the change effects and to work on comparatively new initiatives for further improvements and developments in Egyptian LSPs strategies. However, the critical weakness of BSC; which is the absence of time in the concept, is not fully explored by the research. The research fails to fully incorporate the challenge of time, which is a critical weakness with Balanced Scorecard, and how it hopes to address this in the logistics industry. In addition to this, BSC is used in measuring and monitoring performance due to a change that has occurred in organizational strategic objectives in financial term, adoption of BSC model fail to address predictive organizational future performance, hence a comprehensive BSC approach that incorporate predictive performance with consideration for Stakeholder Satisfaction Factors (SSF) should be encouraged. However, this could be an aspect for further research.

On the other hand, there are several recommendations to guarantee the change mechanism in the Egyptian LSPs sector can improve the current situation. Overcoming several issues would be positively helpful for them to have an appropriate smooth and beneficial change such as: frequently redefined and relayed to all employees which will clearing up any misunderstanding and possible conflicts; considering contingency fund to cater for changes; assign a spokesperson who can act as a collective voice to air potential barriers directly to management; leading and setting an example to others leaders must take an active role a "hands on approach" side by side with the employees in order to motivate and encourage; planning must be emphasised and reflected; finally overcoming and evolved into a non-blame culture. Lynco (2014) recommended principles that provide the cause and effect of managing change strategically: thought processes and relationship dynamics are fundamental if change is to be successful; change only happens when each person makes a decision to implement the change; employees fear change it "happens" to them; given the freedom to do so, people will build quality into their work as a matter of personal pride; traditional organizational systems treat people like children and expect them to act like adults; Truth is more important during periods of change and uncertainty than good news; trust is earned by those who demonstrate consistent behaviour and clearly defined values; employees who work are capable of doing much more than they are doing; the fundamental rewards of a project are often more important than the material rewards and recognition; clearly defined vision of the end result enables all the people to define the most efficient path for accomplishing the results and the more input people have into defining the changes that will affect their work, the more they will take ownership for the results.

This research could influence LSPs in Egypt to use the BSC as a tool to assess their performance annually. As many LSPs in Egypt are lacking from a simple tool for performance measurement in order to benchmark their progress in the competitive logistics business sector not only in Egypt but also with the foreign LSPs in the region. In addition, further researches could be elaborated from this research such as tracking the changes of LSPs performance using BSC in a time series frame.

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