

**Notre Dame University-Louaize  
Faculty of Business Administration & Economics  
Graduate Division**

**Classification and Effect of Procurement on Organizational  
Performance in Lebanon**

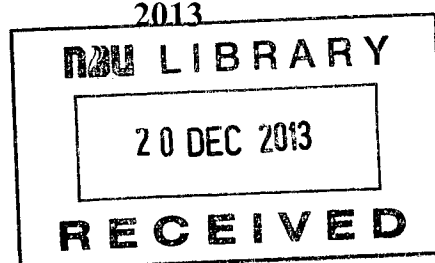
**Submitted by: Reine Abou Antoun**

**Supervised by: Dr. Atef Harb**

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Requirements for the Degree of the Master of Business  
Administration (M.B.A.)**

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## DECLARATION

I hereby declare that this thesis is entirely my own work and that it has not been submitted as an exercise for a degree at any other University.

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REINE ABOU ANTOUN

## ABSTRACT

The purpose of this research was to investigate the different purchasing clusters at the Lebanese organizations and to study the effect of the different purchasing clusters on organizational performance. In order to achieve this research objective, two research questions were addressed. (1) How are purchasing functions within Lebanese Organizations classified? (2) How do purchasing functions at the Lebanese organizations affect performance outcomes? These research questions have been translated into the following two hypotheses (H1) Purchasing functions within Lebanese organizations can be classified based on their level of involvement in strategic planning, status in the eyes of top management, degree of internal integration, and purchasing skills. (H2) Based on different configurations of purchasing characteristics, different purchasing functions will have higher levels of performance outcomes.

To answer the research questions and to test the hypotheses, analyses were conducted based on collected data from Lebanese organizations. The researcher developed a research instrument with 19 indicators to measure performance outcomes (PO) as the dependent variable, and 18 indicators to measure purchasing clusters (PC) as the independent variable. Data were collected via a paper-based, telephone, and email survey questionnaire. Using SPSS, descriptive testing, principal component analysis, and linear regression techniques were used to investigate the relationships among variables and to illustrate the impact of PC on PO at the Lebanese organizations.

The results presented that the hypothesized measurement models are valid and reliable to answer the research questions. Findings supported the two hypotheses and showed a statistically significant relation among the two studied variables. As a conclusion, this study verified the importance of purchasing clusters in positively influencing organizational performance at the Lebanese organizations. The most efficient purchasing functions included strategic planning, purchasing status, internal integration, purchasing skills and affected supplier integration, supplier relationships outcomes, production performance, and financial performance.

Keywords: purchasing, procurement, purchasing clusters, performance outcome, organizational performance.

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## **Chapter 1: Introduction**

### **1.1 General Background about the topic**

Purchasing and Procurement have recently become a major concern for researchers worldwide and from different industries. Organizations have started to realize the importance of Purchasing on the organizational performance. As a result, many organizations have shifted their understanding of purchasing role from a tactical to strategic role. Organizational Purchasing has evolved from a clerical role to a process oriented one. Proper integration of Purchasing has proved to guarantee a sustainable competitive advantage. Should the procedure of buying, sourcing and pricing be effective one ought to be skilled and witty in the field of procurement; effectiveness would prevail by doing all these and keeping a clear agenda.

### **1.2 Problem identification**

Purchasing functions have become recently a major concern for organizations in Lebanon. The increased importance of the purchasing role within international organizations has captivated the attention of the Lebanese firms to develop the role of the purchasing in order to fulfill their strategic role. For many years, the purchasing department within Lebanese organizations was integrated within other departments and her role was mainly to buy and deliver items for the best functionality of the organization without having an added value and without participating in attaining the organization goals and objectives. Developing the role of the purchasing is related to the organizations view of the importance of the purchasing role within the organization and the development of necessary procedures, policies and processes and their application.

The added value of the purchasing within the organizations encourages firms to examine the function and customers' satisfaction and to measure the benefits provided from performance improvement. The most important objective to organizations is to attain is strategic goal and improved performance which cannot be attained without the intervention of a well-developed purchasing. But, despite the considerable attention of researches and organizations to

procurement, there is little empirical evidence showing the current situation of purchasing function development and their effect on performance outcomes within organizations in the Lebanese Market. To note that almost all found researches about purchasing, procurement, and supply chain in Lebanon were case studies within single firms and no further surveys about the market were conducted.

#### **1.4 Objective of the study**

Further to the Economic Accounts of Lebanon published in 2010 by the Lebanese Ministry of Finance (Finance, Latest Economic Indicators, 2010), the growth of domestic economic activity as measured by Gross Domestic Product (GDP) at prices of the previous year was 7% in 2010, against 9% in 2009, 8.6% in 2008; 8.4% in 2007; 0.7% on average in 2005 and 2006; 7.5% in 2004; and 2.5% on average during the period 1997-2003. Overall, after a slow down in 2009, the volume increase in industrial production (output) began on the path of growth: 7.6% in 2010 against +1.4% in 2009, +5.4% in 2008 and +6.8% in 2007.

The industrial inflow volume (input) in industry was proportionally greater than production (+6.9%), which resulted in the most important change in the value added at constant prices (+8.9 %). Based on the same study, different sectors were studied and evaluated for their contribution in the (GDP). For example, (1) in Construction the prices of all the factors of production forming the value added demonstrated a 2.4% increase in 2010, (2) transportation and communication sector slowed in 2010 (+6.3% in volume against 12.7% in 2009), and (3) in the Market services the value added grew by 8.8% in 2010 against 5.2% in 2009; to note that market services include : (a) Business services such as technical, legal, accounting, data processing, equipment rental, brokering, etc. (b) Maintenance and repair services include only maintenance and repair services used by households and public administrations, (c) Housing services (d) Hotel and restaurant services , (f) Health services , (g) Educational services, (h) Financial services include banking and insurances services.

Therefore, due to the contribution of different sectors and their importance for the Lebanese Economy, this study investigates the configurations of the purchasing functions at the Lebanese organizations from different sectors. It measures whether the characteristics of purchasing relates to various supplier and organizational performance outcomes. The

objective of this study is to explore the different patterns of purchasing function configuration, and the relationship between such patterns and organizational performance.

The researcher used a survey questionnaire to collect detailed data concerning purchasing and supply management practices, and supplier organizational performance outcomes from 95 Lebanese firms. The results were analyzed using SPSS.

## **1.5 Importance of the study**

This study explores the various configurations of a purchasing function within today's Lebanese organizations. It should facilitate the study of the evolution of purchasing functions. The findings are useful for practitioners seeking to improve the performance and standing of the purchasing function through identification of the characteristics and potential limitations faced at each phase.

(Chen, 2004) Showed that strategic purchasing can create sustainable competitive advantage by allowing firms to: (a) raise close working relationships with a limited number of suppliers; (b) stimulate open communication among supply-chain partners; and (c) develop long-term strategic relationship orientation to achieve mutual gains. Moreover, the ability to form and manage supply-chain relationships is a critical organizational asset that can produce durable strategic advantage. In turn, these capabilities contribute to enhancing customer responsiveness and financial performance for the buying firm. Therefore, not only can purchasing contribute directly to the firm's bottom line; it is also a vitally important strategic partner in fostering supply management capabilities, which may generate durable strategic advantage. In addition, the supply management contributes to enhanced operational and financial performance for the buying firm.

This study focuses on the importance of purchasing in the Lebanese organizations to ensure security of supply, lower costs, productive relationships, negotiating best deals, offering greater added value and innovation. This study will show the significant purchasing functions within Lebanese organizations and how therefore these functions will affect the performance outcome of the organizations.

## **Chapter 2: Literature Review**

### **2.1 Introduction**

This chapter contains a profile of research related to Purchasing Organization (PO), also used in the context of Procurement and Supply Chain Management, in addition to Organizational Performance (OP), as well as a brief discussion of Purchasing in Lebanon and the Arab Countries. The literature review is divided into four sections. The first section introduces Purchasing Organization, Procurement, and Supply Chain definitions, evolution, types, importance, and characteristics. The second section reviews Organizational Performance definitions and concepts. The third section examines the relationships among Purchasing skills and Performance outcomes. The last section analyzes the status of Purchasing Organization in Lebanon and some Arab Countries.

### **2.2 Purchasing Organization (PO)**

#### **2.2.1 Definition**

During the last years, PO as the process of planning, implementing, purchasing organization (PO) has received increased attention from researchers. (Glock, 2011), has defined evaluating, and controlling strategic and operative purchasing decisions for leading all actions of the purchasing tasks to vacancies consistent with the companies abilities to realize its long-term objectives.

PO defines the methods of the procurement of materials and services, the negotiation conditions of purchase with vendors, and the responsibilities for such transactions.

PO can also be defined as a unit that is created to influence and increase the purchasing power of the business in an attempt to obtain discounts from sellers based on the collective buying power of the organization.



“Procurement” has been used in preference to “Purchasing”. This reflects the view of PO as becoming more strategic and less operational in nature. (CIPS), defined procurement process as a wide commercial function extending from exterior source management through organizing the business ventures to client profit and even remainder sales.

The supply chain has also been used in the context of purchasing. The supply chain is lengthy with many associates including: “planning and organizing large complex operation, physically satisfying the demand for goods and services, resources management, control of raw materials, work in progress, and finished goods and shipping in addition to the purchasing tasks” (CIPS).

### **2.2.2 Procurement, Purchasing, an Supply Chain Management**

Purchasing is a function in a business which provides identified steps in addition to being knowledgeable of the outer resources a company looks for to achieve strategic targets. Purchasing opens a window on all opportunities existing out there and make use of any resourcing plans that provides the successful outcome to the company

A hard task is finding an explanation to the term procurement as it cannot be a single movement. It might include a wide selection of happenings starting by knowing items or services and ending by its disposal or cessation. Supply Management generally relates to just part of the overall process captured by procurement.

A relation between planning, execution and strategic purchasing helps to improve and adequate the upcoming needs to a company regarding the supply market.

Strategic procurement demands a vivid accession in order to empower the market when it comes to items obtaining and services which are essentials to a healthy company. This makes believe that a procurer must rule the characteristics rather than taking them as they are. Some use “purchasing” and “procurement” as different aspects while they are related and complete each other. A difference can be spotted; purchasing is direct and can be done immediately whereas procurement in more into bureaucracy and contracts are required.

Various researchers apply diverse meanings to the terms “Purchasing”, “Procurement”, and “Sourcing”. (Philippart, 2005), has stressed the differences between the terms. Sourcing is regarded as long term needs of a company when it comes to resources which are required to be suitable to the dedicated management. Sourcing is more into planning rather than details and paper work. Sourcing is to any company internal and external at the same time.

Procurement has nothing to do with sourcing it is more into supplier management in different terms whether short or long ones. Many companies use the term procurement to mention all the courses of action of supplier management. When used this way it will include sourcing and the exchanges of supply. Purchasing defines the transaction resulting in the acquisition of a good or service. The term “Purchasing” for English speaking Europe will discuss the supplier management.

### **2.2.3 Evolution**

Purchasing has evolved throughout history from a clerical function to a strategic function as described by different researchers. (Leenders & Fearon, 2008), have studied the different stages of procurement evolution throughout the years. Before the year 1900, purchasing had an independent function from other departments. In the 1918, the purchasing role was primarily a clerical one. During the 1940s, the importance of the procurement role has grown in importance caused by the need of securing necessary materials and services for the factories functionality.

The importance of procurement between the 1950s and 1960s has transformed into a managerial function. While in the 1970s -1980s the purchasing strategy had the leading role. Throughout the 1990s the procurement functions were more incorporated within the whole corporate strategy. Currently, the procurement is being integrated with the information technology and supply networks. The field has changed from Purchasing to Supply Management to reflect the transition from a transaction-based, tactical function to a process-oriented, strategic one.

In this study, purchasing is defined in its large sense, relating to the complete range of possible activities enclosed within the function, from a tactical buying role to a strategic supply chain management role.

(Cousins, 2005), has shown that the corporate strategy and the supply strategy should be aligned. In other words, the supply should give the organization what is needed in order for the firm to accomplish the necessary competitive advantage. Firms strategy makers should be aware of the important role that the supply strategy can have in giving the business the needed benefits and the strategists should focus on the needed approaches to match them to the firm's strategic intent. (Cousins, 2005), stressed the firm's approaches and the adoption of relationship modes to benefit from its competitive position, so if it is a cost focused approach thus, supply is not considered as a strategic process, since it will focus on reducing cost.

Whereas, if a firm approaches the market as a differentiator, supply will be considered as strategic; and the firm will work on the management of the inter-organization collaboration. Finally, he concluded that in order for firms to see supply as a "strategic" competence they must first examine their own competitive position and priorities, supply must then align to match these strategic goals and objectives. By aligning these strategies, firms should be able to unlock the many benefits that strategically focused supply capability can offer.

What is discussed so far can lead into changes and trends that affect purchasing, these can appear within seven areas (1) performance improvement requirements, (2) supplier and purchasing, (3) organization, (4) systems development, (5) performance measurement, (6) supply base management, (7) purchasing responsibilities.

Market success requires that organizations enhance benefits of world-class supply management practices (Trent, 1998). Many arguments debated that the competition in the 2000s could be based on the efficiency of supply chains (Carter, 2003); (Lamming, 1993). The researchers reached a point a long lasting competitive advantage is based on a company's supply chain ability to react as fast and professionally to the market requirements.

Supply Chain strategies and practices depend on not only the nature of the business, the competitive environment, and technological intensity of the product, but also on product and market characteristics. Consequently, supply chain integration (SCI) strategies should be evaluated on the light of companies' market and product strategies. Here, we tend to examine

the effect of SCI on the relationship between diversification and a firm's competitive performance.

A firm adopting diversification strategy should be long for the best functioning linkage or integration among its various internal functions, and with its suppliers and clients including its supply chain. The synchronization between marketing strategies (diversification) and SCI strategies will lead to a well-established act when these two strategies are tracked one at the time. It is beneficial to closely inspect interaction effects of diversification and SCI as many industrial entities are in fact tracking both initiatives in parallel ((Narasimhan, 2002).

(Carr A. a., 1997), have found that purchasing evolutionary process toward becoming a strategic partner has been slow due to general management's failure to recognize the critical role of purchasing. Taking some steps backward, purchasing was not regarded as a necessity and with a huge lack of importance.(Reck, 1988), argued that purchasing was considered as a passive function. However, they stressed that in order to obtain a more strategic performance; it has to be mandatory that purchasing gets the needed configuration and focus. The aim of this issue is to emphasize the evolutionary development of purchasing.

#### **2.2.4 Types:**

Standard PO is used in Pipeline Procurement, Delivery and Stock Transfer process. This is essential when a single firm is responsible for many purchase organizations. Hence, a PO can be classified as a Standard Purchasing Organization. In case of delivery and stock transfer course, the Standard PO automatically assists in the source determination. On the other hand, in case of pipeline procurement, records created for Standard PO are used for issuance of material.

Purchasing may consist of the course of action that precedes and follows the signature of a contract in addition to the top management related to any contract:

- Pre-contract activities such as planning, needs identification and analysis, and sourcing
- Post-contract activities such as contract management, supply chain management and disposal

- General activities such as corporate governance, supplier relationship management, risk management and regulatory compliance

Purchasing Organization can also be classified into: corporate-group-wide purchasing, company-specific purchasing, plant-specific purchasing, reference purchase organization, and standard-purchasing organization. All of these forms can exist at the same time within a single purchaser.

#### **2.2.4.1 Corporate-group-wide purchasing**

A purchasing company would buy various company brands. Here, a company brand would not be the responsibility of the purchasing company; the company brand is separated individually according to the (transaction) operation.

#### **2.2.4.2 Company-specific purchasing**

A purchasing company is in charge for the buying actions of only one company brand. Here, a company brand is under the responsibility of the purchasing company. The purchasing company could only buy this company brand.

#### **2.2.4.3 Plant-specific purchasing**

A purchasing company is in charge of the buying actions of one plant. Here, the plant and the company brand are under the purchasing organization. The purchasing company would buy only for this plant.

#### **2.2.4.4 Reference Purchase Organization**

The term purchasing company is a combination of the mentioned organizational forms. One purchasing company can be permitted to enter the deals and specifications of another purchasing company.

#### **2.2.4.5 Standard Purchasing organization**

Should many purchasing companies buy for a certain plant, one of them would be recognized as the main purchasing company for the operations pipeline procurement, the delivery and the stock transfers (Matthew, 1996). When determining the source in order to transfer stock and to deliver, the system will robotically use this standard purchasing company.

#### **2.2.5 Importance**

Purchasing and supply stresses on sourcing, pricing and getting the right items, at the right price and on time so to offer a service or product. Effective purchasing may help a company cut down costs, keep quality and run the levels of risk to the supply chain. The importance of the item is comparative to the level of the risk to the business. Six core benefits of procurement can be defined as follows.

##### **2.2.5.1 Security of supply**

Purchasing gurus get goods and services to be sold again, or purchase them to be used in the business or to be changed into products or services. Direct buying usually includes creating a long-time contract between the buyer and supplier. Indirect buying includes operations related to repetitive purchases used in managing the business. By specifying the demands for materials, evaluating the value and organizing the logistics and distribution, supply chain gurus guaranty the long-time success and security of the whole business operation.

##### **2.2.5.2 Lower costs**

Effective supply chain management relies on material readiness, purchase quantity, item cost and kinds of materials. Materials subject to scarcities and price unsteadiness present more problems to purchasing gurus. Even small decreases in items costs in a company's entire operating budget can affect the company by raising its profit margins. Purchasing personnel should negotiate effectively to get materials of the best quality at the minimum cost.

### **2.2.5.3 Productive relationships**

Assisting an organization's operations usually means keeping a sequential flow of goods and services needed for production. By purchasing smartly from different suppliers, purchasing gurus get the required quality goods and services at the best bargain. Negotiating convincingly aids enlarge the investment and found profitable working relationships with suppliers. By evaluating usage, purchasing gurus connect with the suppliers to evade duplication, mistakes and waste.

### **2.2.5.4 Negotiating best deals:**

Purchasing Buyers make the vitally important part of negotiating the best agreements. Effective purchasing gurus should know what they are obtaining, how to use and the issues that impact the quality, the cost and the delivery. Service and support requirements should also be examined and debated. By researching and discussing, purchasing gurus close deals that are mutually profitable to both firms. These leads to long-term, fruitful partnerships that is essential to both companies.

### **2.2.5.5 Greater added value**

Those in relation to purchasing and supply are in a place to know every step of a business' procedure and process, from basic goods to waste management. This can aid a purchasing manager to detect methods of making vacancies to improve the quality of goods or services purchased. They may see not only internal effects, but also what is going on in the external surrounding and the market. This can help to come with new thoughts to add value to the firm, recognize how it can enhance competitive advantage or increase sustainability.

### **2.2.5.6 Innovation**

Purchasing managers are also responsible for searching for new suppliers in different markets and for developing innovative purchasing ways to increase effectiveness. They similarly approve and manage "service level agreements" (SLAs). An SLA is an agreement that states standards, time and payment terms for the supply alongside with fines for lost goals. It groups

the duties and the expectations for the firm and its suppliers. A crucial part of the SLA is confirming that the quotation price offered by the suppliers will not to change, therefore affecting the budget of the procurement. With a long term agreement between the purchasing and the suppliers a business-relationship will contribute in an added-value and stability for both firms. This kind of partnership constructs trust between the purchaser and supplier, which can lead to a just-in-time association, where both firms hold least stock and decrease costs.

## **2.2.6 Purchasing characteristics**

Relying on research into the role of the purchasing function, (Carr A. a., 1997) introduced four variables which were estimated to influence different purchasing configurations. These variables capture information on: (1) the role of purchasing in strategic planning, (2) its status in the eyes of top managers, (3) the level of internal integration and (4) skill development.

### **2.2.6.1 Strategic purchasing**

(Cooper, 1993) And (Ellram L. a., 1994) suggested that purchasing would not be one of the companies' strategies until it is considered as strategic ((Ammer, 1989); (Carr A. a., 1997). (Cavinato, 1999)And (Carter J. S., 1998) stated that strategic purchasing may contribute in the strategic planning process itself, and that it is to widen and promote cross-functional integration. Purchasing can as well play the main strategic part in the integration of the internal organization and the customer (Novack, 1991). More or less fresh surveys have inspected the involvement of strategic purchasing to firm performance (Chen, 2004).

(Cavinato, 1999), Has split purchasing into five stages. One of the very important stages is stage four titled "Strategic Management". In Stage 4, firms look to merge the strategic planning process with operational decision making. Their ability to do this is based on three factors: (1) the planning framework, (2) the planning process, and (3) the corporate value system. Within the planning framework, strategic planning should be performed at all levels. Product/ market planning determines sales level, price, and so on. Business unit planning regulates market position and cost structures. Shared resource planning distributes resources



across business units to the benefits of the company. Shared concern planning focuses on the needs of groups and business units or customers.

Finally, corporate planning determines the direction of the company as a whole and structures the financial and human resources of the company. While individual approaches vary from firm to firm, the overall objective of the planning process in Stage 4 is to promote creativity at all of these levels. This creative outlook is vital, as a firm must nurture a culture that backs this less linear strategic planning framework and process in order to pass and become a Stage 4 company. This culture respects teamwork, entrepreneurial spirit, open communication, and believes that the company can master its own future rather than forever getting to be victim to environmental changes if it is successful in the process of strategic management. As strategically evolving as the Stage 4 Company is, it is still tied by traditional concepts of what businesses do.

The Stage 4 Company therefore determines that its mission is not to produce a single kind of finished product that might soon become obsolete, but to produce all types of image-transfer equipment, whether it is cameras, fax machines, modems, or laser printers. The focus is upon developing and perfecting the inherent technology, and salable product opportunities evolve from these. But what both of these product- and function- based companies fail to realize is that technologies, processes, and products are all very quickly replicable today, and that it is the ability to detect, interpret, and apply them. In other words, the ability to learn is the way to ensure long-term survival for a company. Only those Stage 4 companies with exceptionally dynamic leadership and tremendous vision can make the transition to Stage 5.

(Narasimhan R. a., 2001), Linked successful purchasing to the joint venture or the cross-functional purchasing. Other researchers argued that the point of purchasing integration in the framework of purchasing enhancement (Freeman, 1990); (Reck, 1988). An established point is the advanced transition in purchasing from routine, clerical purchasing activities to a proactive, cross-functional, integrative role as purchasing develops into a strategic function in the organization. At present, purchasing integration is seen as an internally focused initiative.

Purchasing integration associates the dynamic presence of purchasing in the strategic debate within the company, and focuses at developing the alignment of purchasing practices and targets with strategic business priorities. Purchasing integration links purchasing objectives

and transactions to business targets, and improves senior management's views of purchasing strategic role in the company. As regarded here, purchasing integration is differentiated from purchasing practices in two separate ways.

First, opposing to purchasing practices that are composed of actions that strike the supply base, purchasing integration engages an internal orientation, demanding purchasing to play an important role in the growth of product- and technology-based strategies of a company.

Second, unlike purchasing practices that may involve huge investments such as quality training for suppliers, purchasing integration is concerned with organizational change, creating powerful internal bounds through membership in strategy development groups, information sharing, and joint decision-making actions that can be taken without acquiring large investments up-front.

From an assignment view, purchasing integration demands a reorientation of assignment focus, away from repetitive activities such as order placement and expediting, to strategic value-added assignment such as value analysis and purchasing participation in product and process design. From an organizational view, purchasing integration demands purchasing association in inter-functional supply chain project groups, full presence in strategy enhancement, articulation and classification, and the development of formal linkages between purchasing performance and supply chain performance evaluation systems. Purchasing involvement in a company's strategic decision-making process might be an essential necessity for reaching purchasing integration.

(Narasimhan R. a., 2001), stressed on manufacturing as one of the best ways of purchasing integrations. He focused on manufacturing performance (priorities) instead of firm-level strategic priorities. The main argument is that a well-aligned purchasing plan would have an assessable impact on the accomplishment of manufacturing and business targets. Integration is already the core skill for businesses.

### 2.2.6.2 Status of the Purchasing function in the eyes of Top Management

The position of the purchasing function has been the topic of long argumentation since (Farmer, 1972). Position is defined as how purchasing is seen by high management, and by other utilities (Carr A. a., 1997). Purchasing positions acts as a pioneer for many of the functions of purchasing and is considered to be “strategic”. High position levels are obtained whenever the function is supported by top management.

Not only does top management play an important role in affecting the company’s opinion regarding purchasing, they can also give all their resources when it comes to time, personnel and finances in relation to improving the ability of the purpose. Where purchasing is subjected as strategic, it is more likely to be included in the strategic dialogue of the firm. Other useful places may also be employed with purchasing to seek input and power their knowledge.

(Cavinato, 1999) view of strategic planning in Stage 5 has its bases in scenario developing processes and can be most simply defined as being based on continuously discovering what is possible and how. The idea is to develop possible scenarios, while knowing that most will never take place. The benefit of this plan is that the company has already imagined and considered possible happenings and their outcomes. If a happening takes place, the company has already prepared its reaction and can implement it more quickly than a company that is reacting to an imagined event. Scenario planning varies from unforeseen planning in that the previous allows a free framework for companies to continuously brainstorm the possibility while the latter influences companies to build detailed cause and effect relationships that are likely to change or not happen as originally imagined.

“Stage 5 organizations have a host of antennae - marketing personnel, R & D processes, and other information links - to collect signals of opportunities and threats, and a means of turning those signals into business options and directions. As (Nonaka, 1995) observe, these firms use various forms of knowledge to develop concepts for the successful implementation of products and services. The ability to gather and process these signals, however, is useless unless the organization can respond to them quickly. Stage 5 firms are characterized by excellent communication links into, within, and outside the organization.

These links are necessary because the organization must be able to swiftly reorganize itself into sub-organizations, create specialized groups, call in outside consultants, and disband as opportunities arise and circumstances change. Stage 5 organizations value people, whether insiders or outsiders, who can assemble creative packages of products and services for competitive advantage. They also reward innovation - often for its own sake - for innovation is necessary for survival.

### **2.2.6.3 Integration of the purchasing function**

The integration of internal business purposes and methods is a hard task for most companies. The concern is further combined in purchasing purposes where they are anticipated to not only integrate with other internal purposes, but also to align with their supply chain activities. Purchasing integration has been debated by scholars focusing on internal and external characteristics. (Narasimhan R. a., 2002), argued that firms need to proactively seek efficient linkage or integration among its various internal functions, and with its suppliers and customers comprising its supply chain.

(Pagell, 2004), discussed that bad or little integration of purchasing with the activities of other purposes often ends up as slow problem solving, poor information exchange and low levels of firm performance, while high levels of integration can advance business performance. The focus here is on manufacturing performance (priorities) instead of company-level strategic main concerns.

(Robertson, 1995), found that purchasing integration play a key role in integrating purchasing initiatives with business priorities in Rover (Robertson, 1995). (Handfield, 1993a), found that materials management input during the design stage enhanced design for manufacturability, leading to lead time reduction at the production stage. Dell Computer achieved a 54% increase in returns, based on its assemble-to-order manufacturing strategy Wall Street (Wall Street Journal, 1998). This manufacturing strategy is supported by a system that closely integrates purchasing with order entry, customer monitoring, manufacturing, and finance, using a mix of technology and business process re-engineering.

(Narasimhan R. a., 2001), showed that a company's corporate and supply strategy need to be aligned. Supply should deliver what the company requires in order to assure its competitive advantage. This research has a number of implications for strategy developers at the level of the company and within supply.

Strategy makers in companies must know the significant role that supply can play in conveying business benefits to the bottom-line. If supply is unacquainted with the strategic purpose of the company it is expected to follow a misaligned approach; this will end up that the company not attaining its full business benefit. This point is illustrated succinctly with a case study company who is a large retailer in the UK. The supply function spent over a year negotiating long-term agreements with suppliers, having already been through an aggressive re-sourcing program. After the negotiations were complete and the contracts were running, the suppliers each received a letter from the CEO demanding a 10 percent price reduction across the board. This letter was sent to the suppliers without supply's knowledge.

The result was mayhem with suppliers refusing to supply and threatening legal action. The supply function became very demoralized and disillusioned with the senior management and a great deal of money was wasted on setting up deals that were not going to be realized. The point here is obvious. The firm in order to survive needed to follow a cost focused approach; it had to reduce costs. Supply on the other hand implemented long-term strategic collaborations. There was a mismatch between what the firm needed to do and how supply saw itself. This occurred because supply was unaware of the strategic priorities of the firm.

(Cousins, 2005), discussed that supply planners should take into consideration what approaches they need to concentrate upon to find what suits best the company's strategic purpose. If the company is considering a differentiated approach, supply has to be sure that it has the abilities and skills within its team to administer these strategies effectively. They would want to be certain that the performance measures are attuned to track these more complex relations.

### **2.2.6.3.1 Purchasing functions**

(Reck, 1988), stated four stages of purchasing functions, and named them “Stages in purchasing strategic contribution”.

The research coupled with practical experience discusses that the level to which the purchasing function contributes to its company’s competitive advantage varies considerably between companies.

#### **2.2.6.3.1.1 The passive purchasing function**

Purchasing usually starts by reacting to other departments demands in a passive purchasing function such as paperwork and follow up of the purchasing sequence. Top management recognizes only the office work of the passive purchasing function and acknowledges it with little influence on the company among competition. It is very normal to locate the passive purchasing department among the bottom the company’s organizational structure, with no direct lines of communication neither to top management nor to middle layer management.

#### **2.2.6.3.1.2 The independent purchasing function**

This is the next stage in the advancement procedure. The need to always accepting the latest purchasing methods and tools, such as value analysis, supplier partnerships, and systems contracting, characterize this stage. Through this series of actions frequent updating the purchasing function preserves equivalence with the company’s competitors or at least lowers any differential advantage that competition may develop. Top management acknowledges the essential role of purchasing as a staff function, on the other side does not appreciate and comprehend fully to its contribution to the company’s competitive success.

#### **2.2.6.3.1.3 The supportive purchasing function**

This function emphasizes consistency with competitive strategy when making purchasing and departmental decisions, in areas such as product design, sourcing, human resources...

Top management regards purchasing as an important function to the business. It is expected to support and strengthen the company’s competitive advantage by providing timely

information to all departments. In this stage, purchasing has direct lines of communication with upper management, and has improved status within the organizational structure.

#### **2.2.6.3.1.4 The integrative purchasing function**

In this fourth and final stage, the company's competitive success rests significantly on the abilities of the purchasing personnel.

Top management expects purchasing to contribute to the company's success, and regards the stage four purchasing function as an integral part of the company's competitive policy.

Supply chain strategies and practices rely on not only the nature of the business, the competitive environment, and technological intensity of the product, but also on product and market characteristics. Accordingly, supply chain integration (SCI) strategies should be assessed according to a company's market and product policies. By comparing the main and interaction effects of SCI and diversification on performance, it is notified that SCI strategy changes the association between diversification and performance.

Top industrials currently see the fact of competitive differentiation and the critical role it plays in establishing a long-term advancement in their industries. As a result, organizations are constantly developing new policies with the target of re-inventing themselves into fresh companies. A company can vary its goods, entering either related or unrelated businesses, and/or it can vary by trailing international markets.

(Hitt, 1997), states that for successful diversification, companies should have coordination ability for managing internal diversity and complexity that diversification generates. This coordination demands important (internal) communication among organizational units that might be geographically spread and external operations with suppliers and customers. The particular boundary between marketing and manufacturing discussed here is the interaction property of diversification and SCI strategies on firm performance. (Narasimhan R. a., 2002), stressed the importance of examining interaction properties of diversification and SCI since most manufacturing firms are in fact pursuing both initiatives at the same time.

Organizations try to get rid of ancient behaviors and start to consider purchasing as essential to the plan of action of obtaining resources in order to attain the required competitive advantage. Moreover, a new mental attitude should be embedded in purchasing and throughout the company. The importance and significance of a firm broad reasoning where practical departments in the company and main providers all work in harmony in order to convey a greater value to the market; represents the 'Strategic Supply'. Some barriers exist within the company as well as between the company and its main suppliers.

The results would propose that companies are changing the way they are controlling and directing the stream of materials and services in the company, to controlling and leading the supply course. The whole firm is accountable for organizing the resources that are retained within the company and that are obtained from an external source and this process identify the difference infused by the supply process. Moreover, the supply course has importance for the judgments leading the company's forthcoming competitive position (Cousins P. , A conceptual model for managing long-term inter-organisational relationships, 2002).

As a sample, if the company chooses to change her work domain from manufacturing to designing, accordingly the supply arrangement should change in order to simplify this strategic change. The company emphasis should be on discovering, evolving and powering the exterior resources in order for these processes to aid the firm attain its targets. Supply administration works on the stream of materials and services throughout the company in order to increase the competitive advantage of the firm and to satisfy customers.

Acquiring materials and services at good prices is one of the ways to attain firm's goals; the focus should be also on how to reduce the cost, redesigning the needed time to manufacture or design a product and to deliver to the market. Moreover, purchasing departments by developing their suppliers database will make sure that the selected suppliers are professionals and that the firm can power their talents and abilities to add value to the market. Suppliers are requested by the clients due to the stresses from the market to offer a group of added values that permit both parties in the relationship to increase their viable progress. 3. Forces of change for purchasing to become strategic.

Nowadays the evaluation and assessment of the companies standing is determined by benchmarking with other operating firms in the world. To add up, the latest economic crises



have directed companies to deeply evaluate the whole linked value chain. Studies and researches from the late 1980s made it obvious that uselessness in the manufacturing and the bad controlling and organizing of the supply could not be on the accounts of the clients by increasing the prices to cover these activities (Steudel, 1992). Organizations should be aware that there are not safe from crises happening worldwide when they are contesting in the global market. Firms are contesting on an international foundation for means, markets and skill.

The capability to transfer the manufacturing and the acquirement of resources all over the world is a crucial basis of authentic in competing against commercial rivals (Womack J. J., 1996). The detailed rigid administrative procedure in consolidated organizations is replaced by “Virtual Firms”. (Gunasekarn, 1998). Companies do not compete manufacturer to manufacturer; the true competitive fight occurs between supply chain to supply chain where an organization is as powerful as its weakest supply chain partner ((Christopher, 1999)(Velocci, 2001)(Speckman, 2002)).

The understanding that when organizing and controlling supply tactically firms can save gigantic sums of money has directed firms to emphasis on this part of management. The formation of competitive procurement sections has changed the view and life process of the procurement. They are being viewed as a strategic business process (Cousins P. , 1999)(Hines, 2000 ). As (Ellram L. a., 1994), briefly elaborate: ‘yet is critical to understand that there is a variance concerning a procurement strategy and a procurement acting as a strategic utility. When procurement is regarded as a strategic utility, the procurement will be a main judgment assessor and a member in the company’s strategic plan of action (Cousins P. a., 2003)

#### **2.2.6.4 Purchasing Personnel Skills Level**

The skills required of purchasing experts have significantly affected OP over the last few years. The buyer’s part changed from focusing mainly on price, delivery and quality, to professionally purchasing, strategically directing and complex agreements between internal stakeholders and suppliers. The same way performance metrics drifted from price reduction to total costs, and the role extended to include actions such as supplier coordination, supplier

development, supplier market research, and cost analysis, sourcing strategy formulation, benchmarking and outsourcing decisions (Carr A. a., 2000).

At present, collaborative relationships is more and more needed in the way of working. These modifications have obliged the enhancement of a new, state-of-the art, number of skills, competencies and approaches to manage in this intensely competitive environment (Cousins P. a., 2003). As argued the supply chain management literature has distinguished purchasing configurations along a range of four dimensions: strategic planning, status, internal integration and skills level. Purchasing functions may, therefore, be identified according to their relative levels of achievement across these characteristics.

The relationships between measurement, rewards and performance are well studied and understood. It is more than obvious that people would execute the activities for which they are awarded. It was the neat relation between measurement, rewards and performance that lead to the addition of a number of items on practical and individual awards in the code of behavior.

(Pagell, 2004), studied the elements of measurement and reward systems that influenced the level of integration at all of the plants in the sample. In four of the plants these systems enabled integration, while at the other seven the impacts were less obvious or negative. Machined metal parts were part of a much larger organization (worldwide employment approximately 150,000). They used a very formal goal setting system to ensure that every function had goals and rewards that complimented company goals. First, company goals and measures were created.

Then the individual businesses and plants created goals to help achieve the company goals. The plant level goals drove the functional goals and so on. This top down approach ensured that the entire organization was trying to achieve the same thing. A similar system was used at mechanical parts. This system was significantly different from those used at some of the other plants where each function seemed to be assessed without regard to their impacts on other functions or the overall chain. At processed foods managers of each process were rewarded for their own efficiency with little regard for the perishable inventory that was buffering each process.

Logistic equipment was a more extreme example of measurement issues creating barriers to integration. Manufacturing was pursuing a quality based strategy with little regard for cost. Manufacturing chiefly measured defects and warranty claims. Purchasing was measured and rewarded mainly on reducing the prices of inputs. The purchasing manager went so far as to say that when faced with a trade-off between price and quality she would buy lower quality if it also lowered prices. This lower quality input would reduce the quality of the manufactured products, and hence harm manufacturing performance.

The measures in the two functions were driving incompatible behaviors. Finally, the sample contained two firms where the employees did not know how they and or their function were measured. At auto parts, it had been more than 5 years for all respondents, since any type of performance appraisal had been done. At printing supplies, they did not have any type of formal assessment for employees or functions outside of sales, making it impossible for the respondents to even address how their function was performing.

Well-designed measures and reward systems seem to be one of the levers for creating integration. And a lack of measurement or systems that put functions in competition with each other certainly harms integration efforts. Companies that adopt long-term planning and see purchasing to be strategic are also likely to put up long-term cooperative associations with their main suppliers. The type of buyer–supplier association can differ from adversarial to cooperative. Adversarial buyer–supplier associations are defined by purchase operations where the goods are not set as priorities and there are many source of supply.

However, a cooperative buyer–supplier association is more attractive for the buying company when purchased goods are prioritized and the main streams of supply are limited to a few suppliers. A cooperative association means the practice of working together, over a long period of time, for the advantage of both companies.

(Williamson O. , 1975), discussed the significance of operation cost economics and its role in buyer - supplier exchange associations. An essential target of the purchasing process is to buy the right item at the right time for the right price. However, the use of purchasing performances that enhance competition among suppliers tends to enlarge the cost of the supplier's production.

(Watts, 1992), noted that a short-term oriented adversarial buyer–supplier relationship is not consistent with the long-term corporate level strategic planning process. They feel that a focus change is necessary for more cooperative relationships among buyers and suppliers. The purchasing process must have a strategic view to distinguish when a competitive or a cooperative buying technique is suitable. Furthermore, this kind of purchasing policy supplies the buyer with more power over the operation costs in relation with the exchange connection.

(Landeros R., 1995), presented a model for developing and maintaining buyer-supplier relationships. The model consists of four stages: (1) Buyer's expectations, (2) Seller's perceptions, (3) Mutual understanding and commitment, (4) Performance activity. In Accordance, the solution to preserving a cooperative buyer supplier relationship is to understand and manage problems in the relationship.

#### **2.2.6.4.1 Skills for a More Strategic Approach**

According to (Carter J. S., 1998), many transformations are happening in the procurement career, comprising electric trade, planned cost administration, calculated procurement, and universal supplier expansion.(Carr A. a., 2000), implementing an emphasis on supply administration in the company while studying procurement and supply administration talents. When a company considers a supply administration interpretation, means are driven in a trial to stay competitive in the market (Oliver, 1997). Whereas features of the company's commerce such as the highest level of development of technology and greater processes are usually considered foundations of staying competent, it should be stressed that workers abilities denote a treasured supply that pitches in to the competitive advantage of the company.

(Carr A. a., 1997), presented in her research a list of “35 purchasing skills”. These skills were categorized into :”( 1) practical, (2) manners, and (3) talent methods”. A follow-up study with the purchasing personnel stressed on the skills that were underlined when the company measured the performance of the purchasing gurus. Then the relationship amongst the procurement talents and the three result indicators was examined: calculated procurement, financial achievement of the firm, and the supplier reaction to processes. The statistics noticeably detailed that talent methods were certainly associated to calculated procurement, practical talents were certainly associated to financial achievement of the company, and talent

methods were certainly associated supplier reaction. The outcomes propose that companies can improve their viable situation by confirming that procurement gurus obtain and promote the desirable practical talents and talent methods.

(Anderson, 1998), examined the relationship between strategic sourcing and the firm value progression and affirmed that strategic sourcing should be engaged into new levels and useful to business that will outline company revenue recognition as well as competitive cost situation. Developing cross-functional groups alongside with careful improvement of skills have allowed companies to benefit of their strategic sourcing chances within couple of years.

#### **2.2.6.4.2 World-Class Skill Set**

The 10 skills recognized by (Anderson, 1998) as the most essential were: (1) interactive rapport, (2) capability of reaching a conclusion, (3) capability to operate within a group, (4) critical, (5) mediation, (6) organizing variation, (7) client emphasis, (8) the power of swaying and convincing, (9) tactical, and (10) comprehending industry circumstances.

One probable clarification is that the investigative aspect is mirrored in numerous of the further classes. The seven features that define the residual skills were then categorized and will be listed in their logical order as follows:

##### **2.2.6.4.2.1 Strategic Skills**

Procurement has evolved throughout history and gained a more strategic role. Strategies are those plotted purchasing actions which have a main role in the success of the company. It is crucial that buyers constantly control corporate situations to recognize possible dangers and chances that may impact the purchasing purpose. Purchasers must extend strategies that are not only profitable for the purpose but also fitting with the company's overall targets.

The strategic aspects of the skill group needed for the first-rate purchaser entail: “(1) tactical intelligence, (2) source database exploration, (3) configuring supplier connections, (4) know-how design, and (5) provider cost aiming”. To start with the most important, purchasers has to start thinking of their trade in strategic terms. Procurement should develop plans such as deciding which kind of partnerships to put up with main suppliers and the most favorable

number of suppliers. This is an essential start from thinking exclusively in reports to order processing orders and servicing other units.

Establishing a strong coalition with one supplier and preserving a conventional "bid and buy" relationship with another might be the best thing to be done. Technology would be a great support to a purchasing company who is considering putting into practice these strategies. To end with, purchasers are to be able to put into practice "cost analysis models", which help as the foundation for incessant development in supplier costs.

#### **2.2.6.4.2.2 Process Management Skills**

Purchasers nowadays have to adopt a wider outlook than placing a purchase order and managing the purchasing progression. In order to attain this it is required from them to possess five main talents: (1) time administration, (2) Possessing or exhibiting tact, (3) expressing well in writing, (4) mental ability to solve complications, and (5) fight resolve (Anderson, 1998). Purchasing gurus are to have a certain capacity of time management in a clever way and not become totally into the daily requirements of the job. Finding time to study and develop ways in a systematic way, while highlighting duties, is essential for improvement. Effective time management means that the purchaser should take in consideration the ideas of others.

Purchasing gurus should be careful of the fact that each person plays a crucial part in the completion of all organizational responsibilities and should be delicate when communicating with others. The task of making existing processes better demands that all employees clearly interact in writing, both internally and externally. Course enhancements often necessitate of changes to the status quo, yet the most expert purchasers go through hard times and conflict in the track of executing their jobs.

#### **2.2.6.4.2.3 Team Skills**

The supply chain enhancement in addition to cross-functional collaboration between firms states that purchasers are to be skilled in order to make it easier to develop and train teams. This approach consists of: Cooperative effort by the members of the team to achieve common goal, ability to lead, ability to organize variation, ability to organize inside clients, and ability

to manage sales. Team work is in the third rank. The development between companies regarding team-based decisions is demonstrated by the point that it was not an entry in the (Kolchin, 1993)skills research.

While group strength is needed from each individual for the victory of any group, buyers should presume a leadership role to synchronize errands and actions and be a model for the rest of the group fellows. Implementing a teamwork outlook helps the buyer in handling variations in the internal and external surroundings by relating the purchasing task to persons with various skills, awareness, and abilities.

To sum up, handling internal clients is one of the most imperative talents that a procurement manager working in team surroundings can excel. Inside clients are those people who use what procurement gets, power the requirement course, and enforce the supplier tactic. The capability to improve a clear supply strategy is reliant on the effective administration of the internal clients.

#### **2.2.6.4.2.4 Decision Making Skills**

Alongside with interpersonal interaction, buyers constantly position decision-making in the first three skills. This aspect contains two skills: decision making and computer knowledge. Procurement and supply administration requires taking numerous decisions every day. The purchaser has to be confident enough in his or her strengths to feel at ease with making such decisions. In many cases, the most appropriate choice or course of action is not readily apparent. Under these circumstances, the ability of the purchaser to make sound business decisions is important.

The knowledge of personal computer technology will offer a great help in the decision making process. Those who do not master this technology are advised to stay away from purchasing positions.

#### **2.2.6.4.2.5 Behavioral Skills**

Behavioral skills define the comportment of the procurement manager while working. This aspect consists of: relational rapport, threat facing, novelty, and eagerness for knowledge. Purchasing is people-oriented tasks that include working with different kinds of people. Interpersonal interaction continuously positions in the first or in the second essential talent required for superior achievement. Being a good public speaker helps the purchaser to deliver his or her thoughts, worries, and ideas to others inside the company and throughout the supply chain.

The buyer has to be able to differentiate the connection between danger and prize and be prepared to take risks under the right circumstances. To be a confident achiever requires having an entrepreneurial spirit in spite of the difficulties in many companies to preserve the status quo. At last, it is crucial that the purchaser constantly inquire about new information to please his or her inquisitiveness regarding business processes, practices, opportunities, or challenges.

#### **2.2.6.4.2.6 Negotiation Skills**

The negotiation aspect entails four main talents: “(1) mediation, (2) client emphasis, (3) the power of swaying and convincing, and (4) comprehending industry circumstances”. Negotiation abilities are essential for buyers in persuading many parties. Refining respectable business connections with associates of the supply chain demands active communication and negotiation. It similarly needs captivating a win-win approach to suppliers, internal clients, and the final consumer. Effective negotiations need resolutions that meet many requirements through the supply chain. Inducing and conversion abilities are essential to manage and organize supply chain personnel internal and external to the company.

#### **2.2.6.4.2.7 Quantitative Skills**

The quantitative aspect contains: (1) The process of computing, (2) methodological, (3) drawing understanding, and (4) conditions expansion. Due to the move to a service-related surroundings and the easy entrée to technical support; these aspects embody are in the lowest-



rated ability matters. While in certain surroundings the skill to read the blueprints is essential, “blueprint reading and specification development” are abilities usually linked to engineers and technical people.

The computer development have helped several of the routine computational abilities, buyers should comprehend how computers methods works. Quantitative abilities in supporting with the expansion of supplier qualifications are essential, particularly when buying goods in production surroundings. Lastly, quantitative abilities also include technical talent including the capability to comprehend and use significant technical material in discussions with technical personnel and suppliers. Lacking this understanding, the buyer is not well prepared to experiment conditions and status of work (Giunipero, 2000)

#### **2.2.6.4.2.8 Purchasing Skills Relationship with Organizational Performance**

The experience within Procurement seems to be at a respectable stage overall, with a combination of education and skillful employees. This displays a larger improvement in comparison to earlier studies, which have lowered the level of procurement capability, in contrast to other units such as sales, finance and manufacturing.

Still, many procurement gurus have not confronted the challenge and instead of being the answer to the problem they are being the problem itself. The skill group for procurement employees that work in strategic administration emphasizes more on the course of abilities such as ability to work within groups, relational rapport, business knowledge, mediation and investigative talents.(Cousins P. a., 2003)

### **2.3 Organization Performance**

#### **2.3.1 Definitions**

One author (Sanhueza, 2011) has defined organizational performance (OP) as the level of efficiency and effectiveness obtained by the company while pursuing its objectives. The World Conservation Union (IUCN, 2004)(MacPherson, 2004) studied 4 aspects of performance as key dimensions to OP as described in figure 1.



**Figure 1: IUCN aspects of OP**

**Source: The African Evaluation Association Conference 2004**

The four aspects of performance as shown in figure 1 are classified into four key dimensions including organizational performance, external environment, internal motivation, and capacity.

### **2.3.1.1 Organizational Performance**

Most companies see their achievement in relation of productivity in doing their job purpose or targets. Companies are productive when they succeed in meeting their purpose, which is mostly presented in documents consisting of authority, targets, mission or strategic goals. A large number of companies view their achievement in terms of their adeptness in organizing their resources.

This connects to the capital usage of materials to get the needed outcome. At the end, any company that wants to stay reasonable over time, it has to be financially reasonable and important to the board of owners and their different demands. An appropriate company

fulfills stakeholders' requests for quality and quantity of materials and services, answers to evolving competition, styles, technologies, other external powers, makes fresh markets or income sources, and self-renovates. Financial practicality denotes the capacity of a company to effectively produce and organize its resources to guarantee its continuing survival.

### **2.3.1.2 External Environment**

Companies operate within external surroundings that improve or hinder their performance. Main features in the regulatory environment, and in the economic, political, socio-cultural, environmental and technological contexts, affect the nature and the quality of work done.

### **2.3.1.3 Internal Motivation**

Achievement is conducted by the companies' willingness to act, which refers to the organizational culture, history, mission, values and incentive systems. These features affect the quality of work, the nature of competition, and the degree of involvement of in decision-making processes.

### **2.3.1.4 Capacity**

Organizational capacity exists in seven basic areas: strategic leadership, human resources, financial resources, infrastructure, programming and process management, and inter institutional linkages. Strategic leadership capacity is understood through the organization's structure, governance, leadership, and strategic plans. Human resources, financial resources and foundations are considered as resources as well as their management. Companies also have capacities that result from the relations, partnerships and alliances they have built with other organizations.

## **2.3.2 Concepts of OP (Ray, 2004)**

(Siggelkow, 2002), has viewed organizations as systems of core, elaborating, independent, and inconsistent elements and the interconnections among all or part of these elements (Carmeli, 2004). These elements include resources, activities, processes, and policies which

are vital for the survival of the organization. (Javidan, 1998), has examined the core concepts of the resource-based view (RBV) which used three main constructs: resources, capabilities, and competencies (Ljungquist, 2007).

### **2.3.2.1 Managerial capabilities**

Literature focuses on the importance of superior top management team in generating higher profits for the organizations. (Mahoney, 1995), has stressed that the management team's power is associated with the managerial capabilities or skills that it possesses because they satisfy the conditions for achieving and maintaining competitive advantage (Kamouche, 1996). (Barney, 1991), emphasized the concept of complementary skills attained by top management team rather than single talented people for successful operations (Carmeli, The Relative Importance of The Top Management Team's Managerial Skills , 2006). (Katz, 1974), focused on the combination of capabilities including technical, conceptual, and human skills to develop a superior management team (Bhardawaj, 2000).

### **2.3.2.2 Human capital**

(Pfeffer, 1994), has identified the organization's members as the real source of competitive advantage. Lots of studies have focused on the educational level of employees as a source for organizational growth, efficiency, and effectiveness, labor productivity, and national economic growth. (Aryee, 1994), has found that human capital has three dimensions: education, work experience, and competence of the firm's members (Becker, 1998).

### **2.3.2.3 Perceived organizational reputation**

Organizational reputation refers to outsiders' beliefs about what distinguishes an organization. A good organizational reputation is considered a core intangible resource that enables an organization to attain sustained superior outcomes. Customers prefer an organization with a favorable reputation, and they can be willing to pay a reasonable premium. Perceived organizational reputation is the top management's view of the outsiders' beliefs about the organization. It is the perceived external prestige and construed external image by the organizational members of the outsiders' beliefs.

#### **2.3.2.4 Internal auditing**

(Eden, 1996), defined internal auditing as a process that examines and evaluates the functioning of the organization. (Globerson A., 1990), described it as a continuous process of comparing actual performance with standards or expectations, in order to improve the organization's achievements. An internal auditing system is important in managing the organization efficiently and effectively as it teaches the employees how to execute their job better by pointing out weaknesses, enhances motivation by demonstrating that the audit's goal is to improve the efficiency and effectiveness of the organization, prevents destructive actions, and increases the probability that the appropriate actions are taken in relation to goal setting and accomplishment (Carmeli, *The Relationships Between Intangible Organizational Elements and Organizational Performance*, 2004).

#### **2.3.2.5 Labor Relations**

Labor relations denote the relationships between the management team and the employees. Organizations with positive labor relations are likely to obtain high benefits and outcomes from their employees as they affect the level of the employees' commitment to the organization. (Meyer JP, 1997), pointed that committed employees are more likely to produce high-yield outcomes, and have a positive effect on organizational performance.

#### **2.3.2.6 Organizational culture**

(Denison, 1990), defined organizational culture as "the underlying values, beliefs, and principles that serve as a foundation for the organization's management system as well as the set of management practices and behaviors that both exemplify and reinforce those basic principles". (Klein AS, 1995), identified organizational culture as the base to improve the organizational overall effectiveness and the quality of its products and services.

### 2.3.2.7 Interactions among intangible organizational elements

Strategic fit between the elements contributes to improving performance. (Porter, 1996), identified three types of fit: First, simple consistency between each activity and the overall strategy; second, mutual reinforcement among activities; and third, optimization of effort across activities. Complementary interactions between elements enhances performance as that the value of one element is increased by the presence of other elements.

## 2.4 Financial Performance

The financial achievement/conduct of a supply chain can be measured by deciding on the total logistics cost. It is essential to choose the adequate policies and methods that help in the flow of data and goods in the supply chain surroundings. Since logistics break into functional limits, one must be accurate during decision making as the cost in one area affects the cost of another (Cavinato, Total cost value model for supply chain competitiveness, 1992). For example, a change in capacity has a major impact on costs associated with inventory and order processing.

A logistics-oriented cost accounting system is required in order to help identifying the associated cost with each action as well as its relation to other actions. Relating the above mentioned to customer profitability empowers the approach. Supply chain assets include accounts receivable, plant, property and equipment and inventories (Stewart, 1995). With increasing inflation and decreased liquidity, pressure is on companies to improve the productivity of their capital. In this concern, the most important aspect is to decide how the costs is connected with every asset, joint with the asset turnover, impact “total cash flow time”. After deciding on the “total cash flow time”, we can link it with the revenue in order to supply and understand the rate of return on investment (ROI). This defines the achievement that management can realize on the total capital devoted in the business. As an illustration, greater customer service will increase sales and profit, and consequently, a higher (ROI)(Gunasekaran, Patel, & Tirtiroglu, 2001).

A detailed example study by (Cousins P. a., 2003) highlights the relation between manufacturing, cost, and customer supplier relationship, the study reads:

Settlements without secrecy were more predominant in production companies more than in service firms in evaluating the coordination relations as stated by the persons who answered the questionnaire.

Thus, 55% of interviewees stated that when implementing a lengthy client provider relationship the result was an increased benefit more than anticipated.

Fascinatingly, 33% of interviewees stated that when implementing a lengthy coordinative relationship the result was an increase in cost more than anticipated. One person stated that they waste time teaching their providers, where providers should be aware about all the processes, business, and techniques.

When talking about real reserves, 46.5% of firms stated that they have saved more than 11% in cost reduction when applying lengthy coordination, 65% of the firms the profit was recognizes during the first year when concentrating on the coordination.

Regarding goal achievements, 93% of interviewees reported a degree of cost lessening; 82% realized a lessening in the cycle times; 80% realized some degrees of incorporation of the overall industry practices; 72% stated that they have being able to see more clearly the potential development of the industries of their associates; 70% have developed settlements in order to share threats and developments; 68% said that they have augmented there parts of the market because they had enhanced their client provider association. (Cousins P. a., 2003)

#### **2.4.1 Transaction Cost analysis**

TCA is a mean used to study the inferences when a firm decides to carry out an operation within the company or to send it out to another firm to work on it for the account of the initial firm. Further to Williamson the importance of the TCA is viewed when a firm should decide on carrying out the operation or giving the activity to another company; by studying the cost related to each operation carried internally or externally and the degree of external activity involvement (Williamson, 1981). The merging of companies that are within the chain of companies symbolizes the malfunction of the free market to deal with the trade relations in a more efficient ways. Based on the analysis of the TCA, the expenditure of operating the

system is the main costs that a company endures in the industry. The level of transaction costs depends upon a number of factors:

- 1- The rate of recurrence of the operation;
- 2- The level of transaction specific investments;
- 3- The outside and inside ambiguity.(Ellram, 2001)

#### **2.4.2 Outsourcing**

The literature discusses that different kinds of purchasing configuration would lead to different performance results (Carr A. a., 1999)(Carr A. a., The impact of purchasing and supplier involvement on strategic purchasing and its impact on firm's performance, 2002). (Carr A. a., Strategically managed buyer-supplier relationships and performance outcomes, 1999), show how different supplier-buyer associations can provide various levels of company and financial performance.

Outsourcing is an important part that (Ellram, 2001)discussed and described as: a company stopped the manufacturing of materials or services that were worked on by her employees to another firm to work on it. This is reliable with the viewpoint of major companies such as (Hewlett-Packard) in pursuing outsourcing implications on purchasing power. Thus, companies have to work on their interior experiences, and power these experiences rather than transferring the knowledge to another company. Interior experiences should never be outsourced. The operations and actions that the company has no specialized abilities are the actions that should be studied for transfer to other firms.

Interior experiences are (Quinn, 1994):

1. Talent or awareness groups, not goods or task.
2. Responsive to change, proficient lengthy policy.
3. Restricted numbers.
4. Exclusive resource of positional advantage in the important and significant sequences.
5. Parts of the industry that the company can execute in a more professional way than other companies and that are important to clients.



6. Imperative Products and activities to clients in the extended period of time.
7. Rooted in the firm policies and procedures.

Interior experiences are the actions that offer long-term competitive advantage; therefore, they should be well protected. All other actions are contenders for outsourcing. The best route to the profit when offering the client lower costs than internal production are:

1. Expertise awareness and know-how that generate relative benefit.
2. Inferior cost of transactions than other companies (salaries, overhead).
3. Leverage/better raw material prices with supplier than its clients.
4. Cost advantages obtained from expansion and/or the amount of all job products and their features.(Ellram, 2001)

## **2.5 Purchasing, Procurement, and Supply chain Management (SCM) in the Middle East**

Some of the Purchasing, Purchasing, and Supply chain activities mentioned in the literature are applied in the Middle East area and in the following short studies a few examples about Lebanon, UAE, and Saudi Arabia will show that the region is in need of more development regarding the new trends applied worldwide when it comes to new purchasing policies, practices, studies and applications.

### **2.5.1 Importance of the Middle Eastern Region**

(Giunipero L. a., 2001), in his study discussed the importance and the opportunities offered by the Middle Eastern region. Hence, when companies search for new opportunities for business and learning, Saudi Arabia and other Middle-Eastern countries must to be considered since the economic opportunities of this region are great. For example:

(1) Saudi Aramco's \$2.5 billion development project in Shayba oil field is leading to expenditures on goods and services of all kinds (e.g., oil and non-oil industries such as building and telecommunications, infrastructure improvements) forecasted to exceed \$3 billion (Reports, Saudi Aramco to spend up to \$3.5 billion on projects to 2000, 1995a).

(2) High levels of commercial building and industrial activity contribute to a \$35 million demand for imported switchgears, switchgear motors, and engines in the United Arab Emirates (Reports, United Arab Emirates: switchgear motors and engines : demand constantly growing, 1995b).

(3) The Saudi government has placed more emphasis on direct contracting with foreign companies, moving away from foreign military products and other types of government-to-government contracting (Ellis, 1995).

### **2.5.2 SCM in the UAE**

(Albaloushi, 2008), in their study about supply chain management (SCM) in the UAE, described the degree of awareness of the features impacting the application of SCM in the UAE construction business as well as the variances in the old-style and contemporary management supply chain.

The study showed the need to support the use of SCM as an instrument to meet task goals and recognized the serious features affecting the achievement of supply chains as being the: (1) Top management support, (2) Customer need approaches (3) Supply chain technical background, (4) and Following company procedures in dealing with supply chain management.

Moreover, the importance-performance analysis indicated that large improvements are needed in the (1) Support by upper management; (2) Activity sequences (3) Customer need approaches, (4) Supply chain technical background, (5) and Resource planning. In comparison to other developed countries, the requirement for UAE companies to link with a minimum of one local equivalent firm also has an important effect on the way of SCM application – especially in the how to and the awaited results regarding knowledge and management.

As a result, it was noticed by them that the business's knowledge of both the notion of supply chain incorporation and its systems are relatively unknown, especially in the United Arab Emirates (UAE).

### **2.5.3 Purchasing, Procurement, and SCM in the Kingdom of Saudi Arabia**

The Kingdom of Saudi Arabia consists of an area of 1,960,528 square kilometers. A 1995 census indicated the total population of the country was 19,409,508 with an average growth rate of 3.5 percent per year. Saudi Arabia has a relatively wealthy oil-based economy and strong government controls over major economic activities. The petroleum sector accounts for 35 percent of gross domestic product and 90 percent of export earnings.

Saudi Arabian oil reserves are estimated to be the largest in the world. The labor force of between six and seven million is employed in government (40 percent); industry construction and oil (25 percent); services (30 percent); and agriculture (five percent). The currency is the riyal, which has been fixed at 3.745 per US dollar since 1986. From a consumer perspective, Saudi Arabia is a multi-racial, affluent society with varying needs and tastes and annual merchandise imports in excess of \$25 billion (Azzam, 1992). Due to relatively high growth rates, much of the population is young, containing people who are predicted to be well educated and informed on what is available in the marketplace as they enter the work force. (Giunipero L. a., 2001)

#### **2.5.3.1 SCM in the Kingdom of Saudi Arabia**

(Al Falah, 2003), in their study highlighted some aspects concerning the Saudi context dealing with the concept of SCM by making a comparison between Saudi manufacturers and joint venture manufacturers. The study showed that:

Saudi private manufacturers have (1) a very weak awareness concerning :(a) implementing Kanban tool (e.g. Kanban is a system to control the logistical chain from a production point of view, and is not an inventory control system. Kanban became an effective tool in support of running a production system as a whole, and it proved to be an excellent way for promoting improvement) in their firms; and(b) electronic linkage to the suppliers.(2) a good awareness in the aspects of:(a)reducing the inventory level, (b)and checking the inventory turnover.

While Joint venture manufacturers' (1) most embraced aspects were: (a) having a database for their suppliers, (b) checking the inventory turnover, (c) and checking the inventory accuracy.(2) a weak application concerns:(a) implementing Kanban. This result can lead to claims that Saudi manufacturers look to SCM as a traditional inventory management. If there is serious intention to be a world-class manufacturer by Saudi manufacturers, they should rethink how they strengthen their suppliers' relationships, by raising the level of coordination and corporation between their operations.

As a result of the study, Saudi manufacturers, in general, are still at stage one of the SCM model. This is suggested in this work; however, joint venture Saudi manufacturers have shown better potential skills and environment to accelerate their integration with other entities (vendors and customers) than the local private manufacturer.

### **2.5.3.2 Outsourcing in the Kingdom of Saudi Arabia**

Outsourcing is an important part that is discussed and they described it as a company stopped the manufacturing of materials or services that were worked on by her employees to another firm to work on it. (Ellram, 2001). In his study, (Sadiq, 2005), reported that in Saudi Arabia a number of operating units are utilizing the services of contract logistics providers, and have been doing so for several years. Furthermore, many non-users in Saudi Arabia are interested in this approach as evidenced by the 45 percent who are exploring the idea of using the services of third party logistics (TPL) providers in future. The initiative to outsource in half of the sample surveyed by (Sadiq, 2005) was taken at the corporate level, which indicates that logistics is on the agenda of the top management.

Although the decision to outsource was a corporate level decision in one half of the instance, managers from other functional areas were routinely involved in the decision making, in about two thirds of the firms surveyed. It is also interesting to note that manager from only one of the functional area was involved at a time, which is in contrast to the practice of involvement of managers from more than an area in all other instances. Functions relating to carrier services, shipment consolidation activities, order fulfillment and product assembly and installation have been the major activities outsourced. Overall, it appears that Saudi firms have been outsourcing those activities which are more "human" intensive.

However, some concerns expressed by users include uncertainties about the capabilities of the TPL providers, costs of outsourcing (12 percent) and the potential loss of direct control of logistics activities (10 percent). The analyses of the experience of Saudi firms in their usage of contract logistics services indicates that the market for TPL services in Saudi Arabia has a good potential for further development. An overwhelming majority of firms have been satisfied/highly satisfied with the services of TPL providers. Users have expressed multiple benefits as a result of TPL usage. While there are still a percentage of firms, which have not outsourced their logistics functions, three fourths have them have indicated that they are likely/most likely to use their services. Further, with a very positive impact on firms, TPL industry is poised to grow in Saudi Arabia.

### **2.5.3.3 Purchasing Practices in the Kingdom of Saudi Arabia**

According to (Giunipero L. a., 2001) study findings indicated that formal purchasing training programs in Saudi Arabia lagged behind those offered by US firms. Due to the fact that most Saudi firms in his study were smaller in size than their US counterparts which were sampled. The Saudi firms did periodically review the training needs of their purchasing people and made efforts to provide training to improve their skills and knowledge.

The majority of this training is conducted by outside organizations brought into Saudi firms or by the firm sending candidates to programs in other countries. Internal trainers who are employees of the corporation do very little purchasing training. Firms in the Kingdom placed a higher emphasis on technical education for purchasing managers. Saudi buyers were also expected to be knowledgeable on governmental regulations and safety issues. While knowledge requirements differed, the major trends forecasted to affect the purchasing field were viewed very similarly by both the USA and Saudi purchasing managers. The major exception was that the reduction in number of suppliers and single sourcing were not as important to purchasing executives in the Kingdom. Training was provided on a "need basis," mostly through annual appraisals as opposed to a specific course sequence.

Almost all firms provided training in the basics of purchasing and a course on negotiations. Five firms also provided Total Quality Management training for their buyers. Increasing

professionalism provided by training and the desirability of attaining Certified Purchasing Manager, as well as an advanced certification program, were viewed as very important achievements for purchasing managers in the year 2000.

These factors might provide the impetus necessary to move purchasing to a high status level which all respondents predicted would occur. Currently, only six of the 11 firms rated purchasing as high status, while all 11 thought it would be high status in the next century.

Purchasing turnover averaged 10 percent and was comparable to the reported US sample average of 8 percent. Overall, these Saudi purchasing executives viewed purchasing as an important function, which will grow in stature in the twenty-first century.

To accomplish this higher status and attain organizational goals they visualize a need to increase their training efforts and formal education including certification programs such as the Certified Purchasing Manager. Finally, they felt technical knowledge in operational and inventory aspects of business were very important but felt that entry level purchasing managers should possess a certain amount of purchasing knowledge to be effective in the next century.

#### **2.5.4 Supply Chain in Lebanon**

(Sleiman, 2004), examined the effect of Supply Chain Management Application on the financial performance of thirteen companies that adopted it. No previous studies were performed to test financial performance. Fourteen indicators were used as a proxy to evaluate performance in this project. All companies studied were USA incorporated. The research covered years between 1992 and 2002.

The study observed whether the SCM is meeting its objective of efficiency and shareholder value improvement. SCM has a positive effect on companies; which should be further revised and determined through a larger sample size, and a longer span of time. In his paper, four major drivers of SC performance were recognized for their impact on the operations of SC. These are inventory, transportation, facilities and information. Thus, the need for integration, coordination and collaboration in achieving customer satisfaction through quality service and

low costs implies that performance of a SC needs an elaborated scheme for evaluation. The study evaluated the performance of SCM driven companies before and after their application of the concept, through appropriate Key Performance Indicators (KPIs).

The above studies from UAE, Saudi Arabia, and Lebanon highlighted a special and specific area of purchasing, purchasing and Supply Chain. Thus in UAE, the study identified the critical factors affecting the performance of supply chains.

Whereas in Saudi Arabia, three studies were introduced, the first compared Saudi manufacturers with joint venture manufactures and their strength and weakness in applying supply chain tools, the second study identified outsourcing and confirmed that it is a growing sector in Saudi Arabia, and the third and final study introduced purchasing practices and how it is viewed by Purchasing Managers.

In Lebanon, the presented study introduced the financial performance of foreign incorporated firms in Lebanon and the need for more studies. All found researches in Lebanon were “case studies” in single firms.

To note that after many attempts to find in Lebanon or the region of the Middle East the necessary information which relates to purchasing as presented in our literature, the outcome was nil. Neither online information nor official documented resources were found.

Even the Saudi Arabia which is considered a leader purchaser/partner of many international companies has only a timid know-how that includes only the power of the country purchasing and the necessary management trainings that are conducted in a low percentage of the whole number of the companies functioning in the gulf area.

## **2.6 Conclusion**

The Literature defined: (1) the Purchasing Organization being a division created to influence and increase the purchasing power of the business in an effort to obtain discounts from vendors based on the collective buying power of the organization, (2) Procurement as being the business management function that ensures identification, sourcing, access and management of the external resources that an organization needs to fulfill its strategic

objectives, (3) Purchasing, while it may be used interchangeably procurement, (4) Supply Chain Management is an integrating philosophy to manage the total flow of a distribution channel from supplier to ultimate customer and based on the increased interest in the supply chain management (SCM), companies have increased their efforts to build a competitive advantage through more efficiency in the purchasing activities and distribution.

On one hand, the literature identified the evolution of Purchasing throughout history from a clerical function to a strategic function and the types of purchasing units: Corporate-group-wide-purchasing, Company-specific purchasing, plant-specific purchasing, Reference Purchase Organization, and Standard purchasing organization.

On the other hand, the literature argued the importance of purchasing and the stress on sourcing, pricing and buying the right items, at the accurate price and at the precise time to deliver a service or a good. Therefore, good purchasing may help a company decrease its costs, keep quality and organize the levels of risk and may add value to the firm in these areas: Security of supply, Lower Costs, Productive relationships, Negotiating best deals, Greater added value, Innovation.

Further, the literature discussed the four variables of purchasing characteristics that are: (1) strategic planning: suggested that purchasing would not be one of the companies' strategies until it is considered as strategic, (2) status of the purchasing function from the view of Top Management: Purchasing positions acts as a pioneer for many of the functions of purchasing and is considered to be "strategic". High position levels are obtained whenever the function is supported by top management, (3) integration of the purchasing function: purchasing purposes are anticipated to not only integrate with other internal purposes, but also to align with their supply chain activities and classified as: passive, independent, supportive, integrative, (4) Skills Level: purchasing experts have significantly affected organization performance over the last few years and the skills required were defined as: strategic, process management, Team, Decision making, behavioral, negotiation, and quantitative

The Organization Performance was defined as the level of efficiency and effectiveness obtained by the company while pursuing its objectives and the effect and the discussion highlighted the importance and effect of the company interaction with the external environment, internal motivation, capacity, managerial capabilities, human capital,



reputation, internal auditing, labor relations, culture, interactions among intangible organizational elements.

For the financial Performance two methodologies were defined: (1) TCA is a mean used to study the inferences when a firm decides to carry out an operation within the company or to send it out to another firm to work on it for the account of the initial firm, (2) Outsourcing as: a company stopped the manufacturing of materials or services that were worked on by her employees to another firm to work on it.

The literature is supported by a case study from the United Arab Emirates (UAE) that specified the degree of awareness of the features impacting the application of SCM in the UAE construction business as well as the variances in the old-style and contemporary management supply chain. Three case studies from Saudi Arabia, (1) Saudi context dealing with the concept of SCM presented a comparison between Saudi manufacturers and joint venture manufacturers, (2) Outsourcing, in Saudi Arabia a number of operating units are utilizing the services of contract logistics providers (3) Purchasing Practices, Saudi firms periodically review the training needs of their purchasing people and made efforts to provide training to improve their skills and knowledge. And one case study from Lebanon which examined the effect of Supply Chain Management Application on the financial performance of thirteen companies that adopted it. The study observed whether the SCM is meeting its objective of efficiency and shareholder value improvement.

The Literature investigated, discussed, and identified the importance of purchasing functions to the organizational performance based on four dimensions: strategic planning, status, internal integration and skills level and highlighted that the measurement can be done based on the relative levels of achievement of those functions across the identified characteristics. Moreover, different types of purchasing configuration will affect significantly the organization performance outcomes.

In their research (Carr A. a., Strategically managed buyer-supplier relationships and performance outcomes, 1999), show how different supplier-buyer relationships can deliver differing levels of firm and financial performance. (Ellram L. a., 2001), in their study of outsourcing decisions also found that the strategic focus of supply or what we refer to as

“purchasing configuration” can have an effect on the success of the chosen strategy. Purchasing can also have a significant impact on firm performance (Chen, 2004).

(Albaloushi, 2008), in their study about supply chain management(SCM) in the UAE, discussed the importance of the concept of supply chain integration and its methods to the construction industry and that the awareness of the concept is lagging behind the world practices and should be developed. While from a study in Saudi Arabia by (Al Falah, 2003), a comparison between Saudi manufacturers and joint venture manufacturers showed that manufacturers affiliated with international organizations have better potential skills and environment to accelerate their integration with other entities (vendors and customers) than the local private manufacturer. Outsourcing in Saudi Arabia, was found to be well identified by companies as per the study of (Sadiq, 2005), and it is a growing sector the kingdom. The Purchasing practices and skills are known to Saudi organizations as per (Giunipero L. a., 2001), and the study showed that technical knowledge in operational and inventory aspects of business were very important but felt that entry level purchasing managers should possess a certain amount of purchasing knowledge to be effective in the future. In Lebanon, the effect of Supply Chain Management Application on the financial performance was studied based on the Key Performance Indicators (KPIs) and from a financial point of view by (Sleiman, 2004) and found a positive impact on financial performance by the supply chain practices.

The different above mentioned studies, presented the importance of a single or different functions of the purchasing and their importance and relation to the organization performance outcome from different dimensions such as: supplier integration, supplier relationship outcomes, product performance and financial performance. Hence, the studies did not examined the relation from a broader point of view by identifying a more developed group of variables and their effect on a wider group of performance dimensions outcome along with their inter-correlations.

Thus, the importance of the study is based on the exploration of the various configurations of purchasing functions within today’s Lebanese organizations and if these significantly affect the performance outcomes of the companies. It would be the starting point for a more advanced research within the supply chain field since no studies were previously conducted concerning the tackled subject. By identifying the different functions of purchasing and the different organization performance outcomes, the Literature allowed us to develop the needed

research methodology and statistical procedure to be conducted in order to examine the previously presented hypotheses about the importance of purchasing functions and their effect on the performance outcome and which will be discussed in the next chapter.

## **Chapter 3: Procedure of Methodology**

The purpose of this study is to identify and examine the different pattern of purchasing function in the Lebanese Organizations and the relationship between such patterns and organizational performance. This chapter includes the research questions and a description of the research methodology, as shown in Table 1, which included three phases: Preparation, Data Collection, and Data Analysis. A description of each phase is introduced in more detail within the chapter.

### **3.1 Research questions**

The supply chain management literature has distinguished purchasing configurations along a range of four dimensions: strategic planning, status, internal integration and skills level. Purchasing functions may, therefore, be identified according to their relative levels of achievement across these characteristics.

The literature also reviews that different types of purchasing configuration and supplier-buyer relationships lead to different performance outcomes. Different purchasing configurations result in varying levels of performance along the dimensions of supplier integration, supplier relationship outcomes, product performance and financial performance.

This study answers the following questions regarding the influences of purchasing on performance: (1) how are purchasing functions within Lebanese Organizations classified? (2) How do purchasing functions at the Lebanese organizations affect performance outcomes?

In this study, these research questions have been translated into the following two hypotheses, which were subsequently tested with data from the 2013 Questionnaire at major Lebanese organizations:

- H1. Purchasing functions within Lebanese organizations can be classified based on their level of involvement in strategic planning, status in the eyes of top management, degree of internal integration, and purchasing skills.
- H2. Based on different configurations of purchasing characteristics, different purchasing functions will have higher levels of performance outcomes.

Steps	Description
<b>Phase 1: Preparation</b>	
<b>Research Relationships</b>	The relationships among research questions, hypotheses, and instruments were defined.
<b>Select Measurement</b>	The target population consisted of purchasing executives of 95 Lebanese Organizations.
<b>Identify Variables</b>	The dependent variables were 19 items of PO (Performance Outcomes) that were grouped into 4 factors. The independent variables were 18 items of PC (Purchasing Clusters) that were grouped into 4 factors.
<b>Develop Instrumentation</b>	(Womack, 1990), (Carter J. a., 1993), (Hendrick, 1993), (Carr A. a., Strategically managed buyer-supplier relationships and performance outcomes, 1999), (Carr A. a., 2000), (Carr A. a., The impact of purchasing and supplier involvement on strategic purchasing and its impact on firm's performance, 2002), (Narasimhan R. a., 2001)and (Narasimhan R. a., 2002)models were used to measure indicators of purchasing clusters and performance outcomes.
<b>Establish Reliability &amp; Validity</b>	The instruments to measure purchasing clusters and performance outcomes have been developed and improved theoretically and empirically. The reliability measures for this study were calculated using Cronbach's alpha. The questionnaire was reviewed by the advisor of the research thesis for content validity.
<b>Phase 2: Data Collection</b>	
<b>Distribute Questionnaire</b>	The researcher distributed the questionnaire by hand and via email.
<b>Collect Questionnaire</b>	The researcher collected the questionnaire.
<b>Phase 3: Data Analysis</b>	
<b>Analyze Data</b>	Principal component analysis and linear regression were selected for conducting analysis using SPSS to test the relationships among all variables.

**Table 1: Research Procedure**

### 3.2 Research Relationships

As suggested in the discussion in Chapter 2, this study investigates the configurations of purchasing functions at the Lebanese organizations. It measures whether the characteristics of purchasing relates to various supplier and organizational performance outcomes. To answer the two research questions, two hypotheses were formulated. The relationships among research questions, hypotheses, and questionnaire items are highlighted in Table 2 as discussed in Chapter 1.

<b>Research Questions (RQ)</b>	<b>Hypotheses (H)</b>
RQ 1: How are purchasing functions within Lebanese Organizations classified?	H 1: Purchasing functions within Lebanese organizations can be classified based on their level of involvement in strategic planning, status in the eyes of top management, degree of internal integration, and purchasing skills.
RQ 2: How do purchasing functions at the Lebanese organizations affect performance outcomes?	H 2: Based on different configurations of purchasing characteristics, different purchasing functions will have higher levels of performance outcomes.

Table 2: Summary of Research Questions, Hypotheses, and Instruments

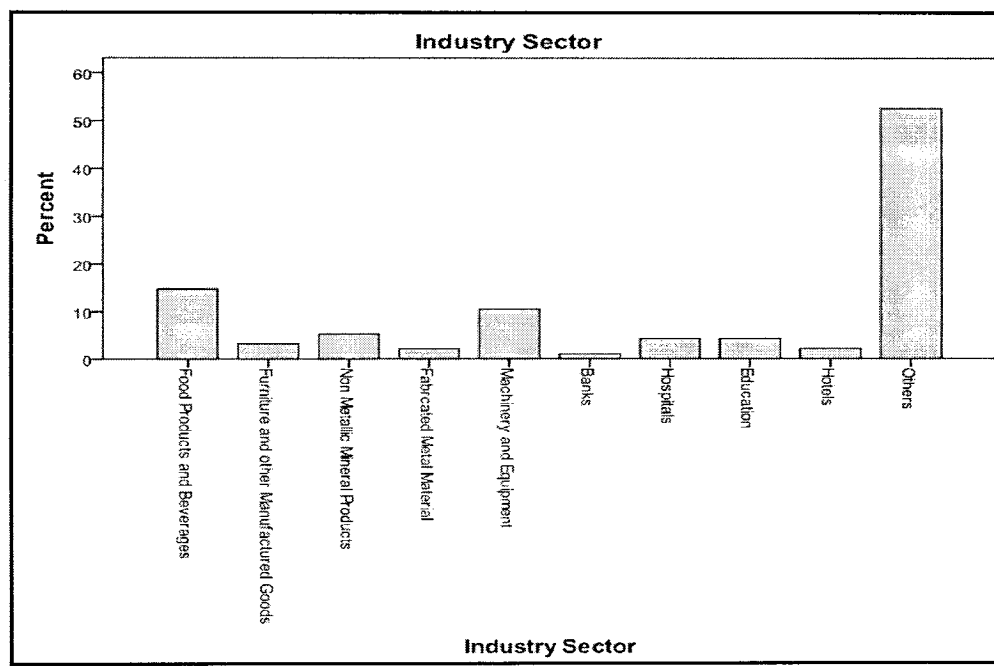
### 3.3 Population

The target population for this study was (N=150) and the respondents were purchasing executives from 95 Lebanese Organizations during June 2013 (n=95). The statistical information is demonstrated in Table3.

### Industry Sector

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Food Products and Beverages	14	14.7	14.7	14.7
Furniture and other Manufactured Goods	3	3.2	3.2	17.9
Non Metallic Mineral Products	5	5.3	5.3	23.2
Fabricated Metal Material	2	2.1	2.1	25.3
Machinery and Equipment	10	10.5	10.5	35.8
Banks	1	1.1	1.1	36.8
Hospitals	4	4.2	4.2	41.1
Education	4	4.2	4.2	45.3
Hotels	2	2.1	2.1	47.4
Others	50	52.6	52.6	100.0
Total	95	100.0	100.0	

**Table 3: Industry Sector**



**Figure 2: Industry Sector**

The 95 Lebanese Organizations included in the study were targeted because they had a well-developed purchasing department.

### 3.4 Variables

The items used to measure the theoretical constructs were derived from an extensive review of the present literature. All items were measured in a 5-point Likert-scale response and one additional response option called "Do not know" to indicate the degree to which the described activities were present at the Lebanese organizations.

#### 3.4.1 Performance Outcomes (PO) as a dependent variable

Performance outcomes were assessed as: supplier integration; supplier relationship outcomes; product performance; and financial performance as shown in table 4

- Supplier integration was measured using a six-item scale ((Carr A. a., Strategically managed buyer-supplier relationships and performance outcomes, 1999); (Narasimhan R. a., 2002)).
- Supplier relationship outcomes were measured using a four-item scale (Womack, 1990)
- Production performance was assessed using a four-item scale adapted from (Carr A. a., 2000).
- Financial performance was assessed using a four-item scale ( (Carr A. a., The impact of purchasing and supplier involvement on strategic purchasing and its impact on firm's performance, 2002); (Carr A. a., 2000)).

Performance Outcomes	Variable
Supplier Integration (SIN)	Strategic partnership with suppliers Information exchange Supplier participation in design, procurement, and production Quick ordering systems
Supplier Relationship (SRO)	Improved product design Improved process design Improved product quality Reduced lead times
Product Performance (PRO)	Product quality Delivery speed Delivery reliability Flexibility of production
Financial Performance (FIN)	Return on investment Return on sales Profit growth Return on total assets

**Table 4: Performance Outcomes (PO) as a dependent variable**



### 3.4.2 Purchasing Clusters (PC) as an independent variable

The practices used to establish the clusters were: involvement in strategic planning; internal integration; status; and purchasing skills as shown in Table 5

- Strategic planning was measured using a three-item scale validated by (Carr A. a., Strategically managed buyer-supplier relationships and performance outcomes, 1999), and developed by (Carter J. a., 1993)and (Hendrick, 1993).
- Internal integration was assessed using a six-item scale developed by (Narasimhan R. a., 2001).
- Purchasing status of the purchasing function was assessed using the scale of (Carr A. a., 2000).
- Purchasing skills used the scales developed by (Carr A. a., 2000).

Purchasing Clusters	Variables
Strategic Planning (SP)	Formal long range plan Review of plan to match changes Inclusion of relationships with suppliers
Purchasing Status (STA)	Top management support Importance to strategy Importance to top managers
Internal Integration (INT)	Extent of integration with marketing New product design Process involvement Strategy making
Purchasing Skills (SKL)	Monitor changes in supplier market Technical capabilities Reduce total cost Interpersonal skills

**Table 5: Purchasing Clusters (PC) as an independent variable**

### **3.5 Instrumentation Basis**

Results from earlier research ((Carter J. a., 1993), (Hendrick, 1993), (Carr A. a., Strategically managed buyer-supplier relationships and performance outcomes, 1999), (Carr A. a., 2000), and (Narasimhan R. a., 2001)) were selected for use in measuring PC.

Results from earlier research(Womack, 1990),(Carr A. a., Strategically managed buyer-supplier relationships and performance outcomes, 1999), (Carr A. a., 2000), (Carr A. a., The impact of purchasing and supplier involvement on strategic purchasing and its impact on firm's performance, 2002), and (Narasimhan R. a., 2002)) were selected for use in measuring the dependent variable: PO.

#### **3.5.1 Questionnaire Development**

A questionnaire was designed to provide information to test relationships among dependent and independent variables.

The visual layout of the questionnaire was simple. A one-page cover letter was designed to introduce the researcher, explain the background and purpose of the study, address confidentiality issues, emphasize voluntary participation, offer information on how to contact the researcher for questions, and include procedures for submitting the questionnaire.

The questionnaire included 5 questions that addressed industry sector, number of employees, education level, experience, and position. For purchasing clusters, 18 indicators were developed based on the theoretical framework in order to study the dependent variable. For performance outcomes, 19 indicators based on the theoretical framework were developed in order to study the dependent variable. All items were measured in a 5-point Likert-scale response and one additional response option called "Do not know" to indicate the degree to which the described activities were present at the Lebanese organizations.

The survey was pilot tested. The draft questionnaire was sent to two practitioners who were asked to comment on the content, clarity and scaling of the instruments. Several minor changes were made as a result of this feedback. The researcher contacted more than 500 Lebanese organizations from different industries. The respondents to this research included only those organizations that had a well-developed purchasing department. The researcher

contacted 500 Lebanese organizations from different industries. However, the questionnaire was distributed to 150 Lebanese organizations with well-developed purchasing departments either by hand, phone or via email. The total of participants that completed the questionnaire was 95. The response rate was 63 %. The IAR (Instructional Assessment Resources) finds that a response rate > 50% in a paper administered survey is considered a good and acceptable response rate ([www.utexas.edu](http://www.utexas.edu)).

### **3.6 Validity and Reliability**

#### **3.6.1 Validity**

As discussed earlier, the questionnaire for this study was adapted from previous models: (Womack, 1990), (Carter J. a., 1993), (Hendrick, 1993), (Carr A. a., Strategically managed buyer-supplier relationships and performance outcomes, 1999), (Carr A. a., 2000), Carr and Pearson 2002,(Narasimhan R. a., 2001) and (Narasimhan R. a., 2002).

Initially, the questionnaire was submitted to 2 professionals to determine whether the questions were clear, understandable, and in a logical order (face validity).

Moreover, the questionnaire was reviewed and approved by the advisor of the thesis (Content validity).

Finally, factorial validity was established. This validity indicates that the factor structure of the questionnaire makes intuitive sense. Using SPSS, as shown in tables 14, 15,16 and 17, factor analysis was performed and correlated questions were re-coded into uncorrelated variables called factors (factorial validity) (Field, 2003).

#### **3.6.2 Reliability**

To assess the reliability of for the questionnaire, Cronbach's alpha was calculated using SPSS. The items of the questionnaire showed a high internal consistency and reliability as Cronbach's alpha was greater than 0.80.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.836	18

**Table 6: PC (Purchasing Clusters) Reliability Statistics**

**Reliability Statistics**

Cronbach's Alpha	N of Items
.846	19

**Table 7: PO (Performance Outcomes) Reliability Statistics**

### 3.7 Data Analysis

Since this study seeks to identify and examine the clusters of purchasing and relationship between purchasing characteristics and organizational performance in the Lebanese industries, the Principal Component Analysis Model was selected as the basic model for conducting analysis by employing SPSS (Statistical Package for the Social Sciences). This model is a data reduction technique that creates components or factors that allow the interpretation of large series of data into components that can be meaningfully important. The model conceptually helped the researcher better examine the purchasing characteristics of Lebanese organizations and the relationship between purchasing clusters and Lebanese organizations performance.

#### 3.7.1 Variable Identification

In order to investigate the relationships among purchasing clusters and purchasing and performance, the first step was to identify each set of variables. The Principal Component Analysis Model was used to redefine these two variables.

There are two basic types of factor analysis: exploratory and confirmatory. Exploratory factor analysis (EFA) is used when researchers have no prior assumption about the number of factors necessary to explain the interrelationships among a set of characteristics, indicators, or

items. Another is confirmatory factor analysis (CFA), which purposely assesses the extent to which the hypothesized model of a set of identified factors fits the data (Gao, 2011).

In this study, the purchasing clusters were categorized based on four different characteristics: including internal integration, purchasing skills, strategic planning, and purchasing status. Organizational performance indicators were categorized into four items including supplier integration, supplier relationship, production performance, and financial performance. Therefore, it is necessary to explore the factor structure of each variable by conducting an EFA. A CFA was then conducted to determine whether the factor structure generated from the EFA required modification.

### **3.7.2 Linear Regression**

After defining each set of variables, the next step was to assess relationships among them in order to test the hypotheses and answer the research questions. SPSS was used to perform linear regression. Linear regression was chosen because it has been extensively used lately in behavioral and social sciences. With its ability to describe and quantify possible relationships between identified variables, it has helped in analyzing significant data that proves to be statistically important and meaningfully important.

## **3.8 Conclusion**

The research methodology was conducted using three phases: the Preparation, the Data Collection, and the Data Analysis.

The first phase, Preparation, identified: (i) the research relationships and the formulation of two hypotheses to answer the two research questions i.e. H1 Purchasing functions within Lebanese organizations and H2 based on different configurations of purchasing characteristics, different purchasing functions will have different levels of performance outcomes.

(ii) The target population was 150 company from which 95 responded (500 company were contacted to find out if they have a purchasing department) and the statistical information was demonstrated.

(iii) The variables, were derived from the Literature review and measured using Likert-scale response to indicate the degree to which the described activities were present at the Lebanese organizations and included: (a) Performance Outcomes (PO) as a dependent variable and included the supplier integration; supplier relationship outcomes; product performance; and financial performance and the measurement scale used for each outcome, (b) Purchasing Clusters (PC) as an independent variable and included the involvement in strategic planning; internal integration; status; and purchasing skills and the measurement scale used for each cluster.

(iv) the Instrumentation Basis, were derived from earlier research that were used to measure PC and PO and a questionnaire was developed in order to provide information to test the relationship between variables, these included: A one-page cover letter; 5 questions that addressed industry sector, number of employees, education level, experience, and position; Purchasing clusters, 18 items were developed ;Performance outcomes, 19 items were developed; and all items were measured in a 5-point Likert-scale response; The survey was pilot tested and several minor changes were made as a result; the response rate was 63 %.

(v) First, The validity checked and approved : (a) the questionnaire was adapted from previous models, (b) face validity of the questionnaire was checked by 2 professionals to determine clarity and logicity, (c) content validity was reviewed by the advisor of the thesis, (d) factorial validity was established which indicates that the factor structure of the questionnaire makes intuitive sense, factor analysis was performed and correlated questions were re-coded into uncorrelated variables called factors. Second, the reliability of the questionnaire was assessed using SPSS to calculate Cronbach's alpha and resulted in a high internal consistency and reliability between the items of the questionnaire as Cronbach's alpha was greater than 0.80.

The second phase, the researcher distributed the questionnaire by hand and via email and then collected it.

The Third Phase was the Data Analysis, the Principal Component Analysis Model was selected as the basic model by employing SPSS, which is a data reduction technique that creates components that allow the interpretation of large series of data into components that can be meaningfully important and to identify variables among purchasing clusters and performance outcome and was divided to two steps:

(i) identifying each set of variables by using two basic types of factor analysis: (a) exploratory (EFA) which is used when researchers have no previous assumption about the number of factors necessary to explain the interrelationships among a set of factors and thus PC indicators were categorized based on four characteristics and PO indicators were categorized based on four items, and (b) confirmatory (CFA) that assesses the extent to which the hypothesized model of a set of identified factors fits the data, CFA was then conducted to determine whether the factor structure generated from the EFA required modification.

(ii) Linear Regression was used to assess relationships among PC and PO in order to test the hypotheses and answer the research questions. Linear Regression was chosen because it has been extensively used lately in behavioral and social sciences, and it has helped in analyzing significant data that proves to be statistically important and meaningfully important.

The listed phases helped the researcher to establish the: research relationships, select measurement, identify variables, develop Instrumentation, establish reliability & validity, describe data collection, and analyze the data in order to discuss the findings of the research in the next chapter.

## **Chapter 4: Findings**

The purpose of this study is to examine the purchasing functions within the Lebanese organizations and to study the relationships between purchasing functions and performance outcomes. This chapter includes two sections, data analysis process and summary of findings. In this chapter, the results of the statistical data analyses are reported as proposed in the previous chapters to answer the two research questions: (1) how are purchasing functions within Lebanese Organizations classified? (2) How do purchasing functions at the Lebanese organizations affect performance outcomes? and to test the two hypotheses: (1) H1: Purchasing functions within Lebanese organizations can be classified based on their level of involvement in strategic planning, status in the eyes of top management, degree of internal integration, and purchasing skills. (2) H2: Based on different configurations of purchasing characteristics, different purchasing functions will have higher levels of performance outcomes.

### **4.1 Data Analysis Process**

The following three-step analyses were taken to complete this study: the first step involved descriptive analysis to describe the characteristics of the respondents as well the distribution of responses to the items describing Purchasing clusters (PC) and Performance Outcomes (PO) ; the second step was factor analysis to identify the factor structures of the dependent variables and independent variables; and the third step involved the use of linear regression to examine the relationships among these variables as a whole.

#### **4.1.1 Descriptive Analysis**

As observed in tables 8, 9, 10, and 11 the majority of Lebanese organizations responding to the study had more than 200 employees (48.4%) and most of them were Bachelor holders (84.2%). The respondents' work experience was equally distributed. The targeted respondents had current managerial positions (82.1%) including high managerial positions (11.6%), middle managerial positions (46.3%), and first line managerial positions (24.2%).



The descriptive statistics are used to describe the basic features of the data in the study, they provide simple summaries about the sample and the measures, and they help us to simply large amounts of data in a sensible way.

The distribution is a summary of the frequency of individual values or ranges of values for a variable. One of the most common ways to describe a single variable is with a frequency distribution and/ or percentage.

Tables 8, 9, 10, 11: show the descriptive statistics among each item including number of employees, highest educational level, work experience, and current position.

	Frequency	Percent
<b>Number of Employees</b>		
1-50	17	17.9
51- 100	14	14.7
101-150	11	11.6
151-200	7	7.4
> 200	46	48.4
Total	95	100.0

**Table 8: Number of Employees**

	Frequency	Percent
<b>Highest Educational Level</b>		
High School	4	4.2
TS	2	2.1
Bachelor	80	84.2
Masters	1	1.1
Doctoral	8	8.4
Total	95	100.0

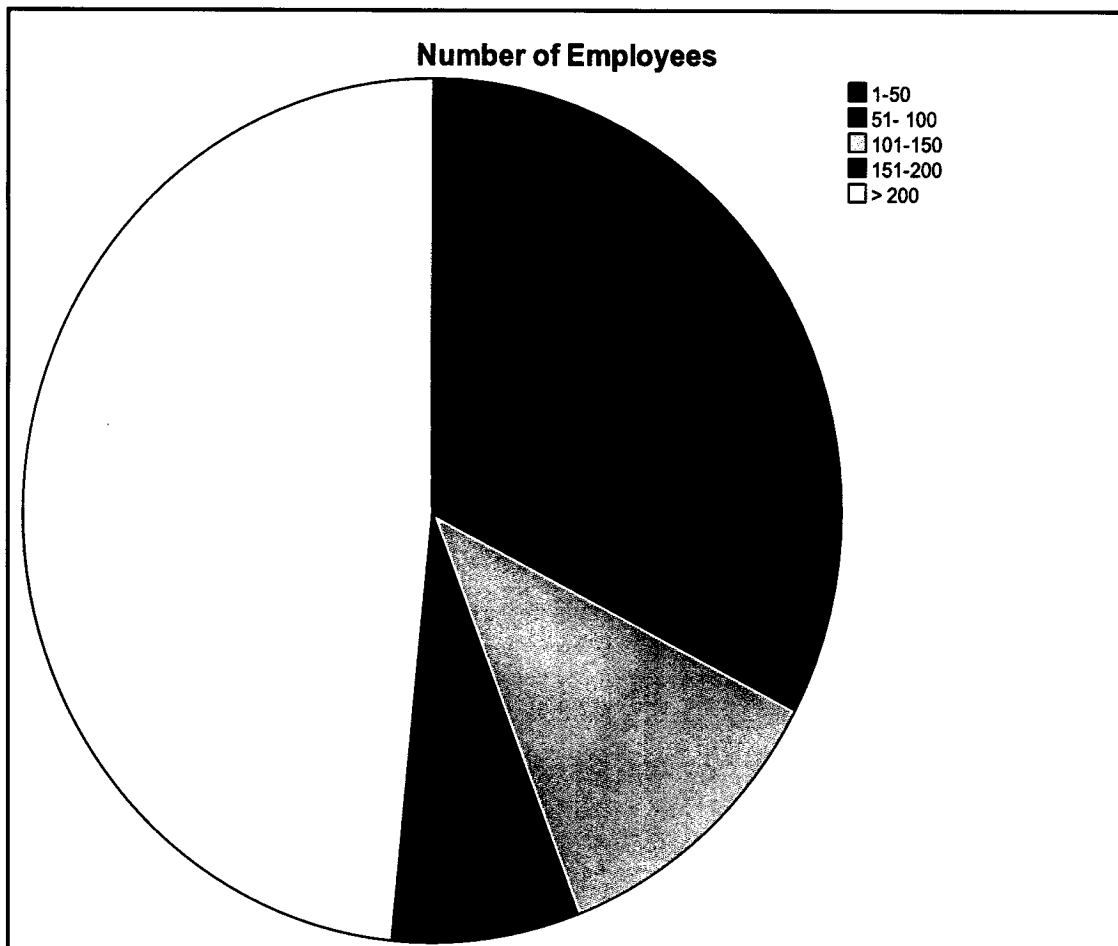
**Table 9: Highest Educational Level**

	Frequency	Percent
<b>Work Experience</b>		
< 3 years	19	20.0
3-5 years	24	25.3
6-10 years	36	37.9
11-20 years	16	16.8
Total	95	100.0

**Table 10: Work Experience**

	Frequency	Percent
<b>Current Position</b>		
High Managerial	11	11.6
Middle Managerial	44	46.3
First Line Managerial	23	24.2
Officer	6	6.3
Data Entry	4	4.2
Others	7	7.4
Total	95	100.0

**Table 11: Current Position**



**Figure 3: Number of Employees**

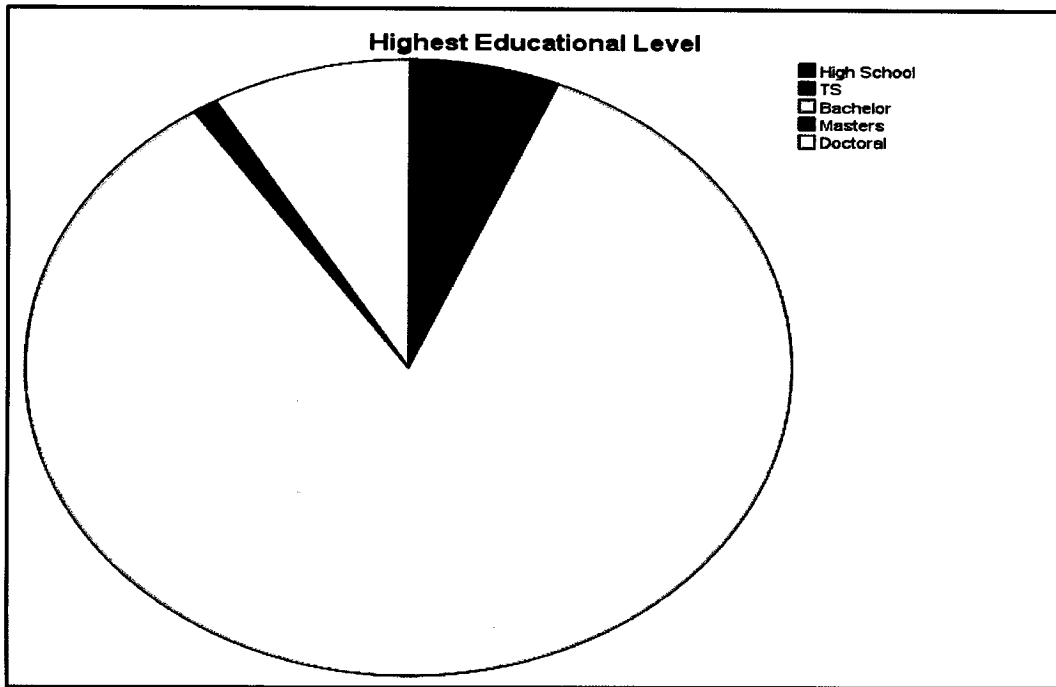


Figure 4: Highest Educational Level

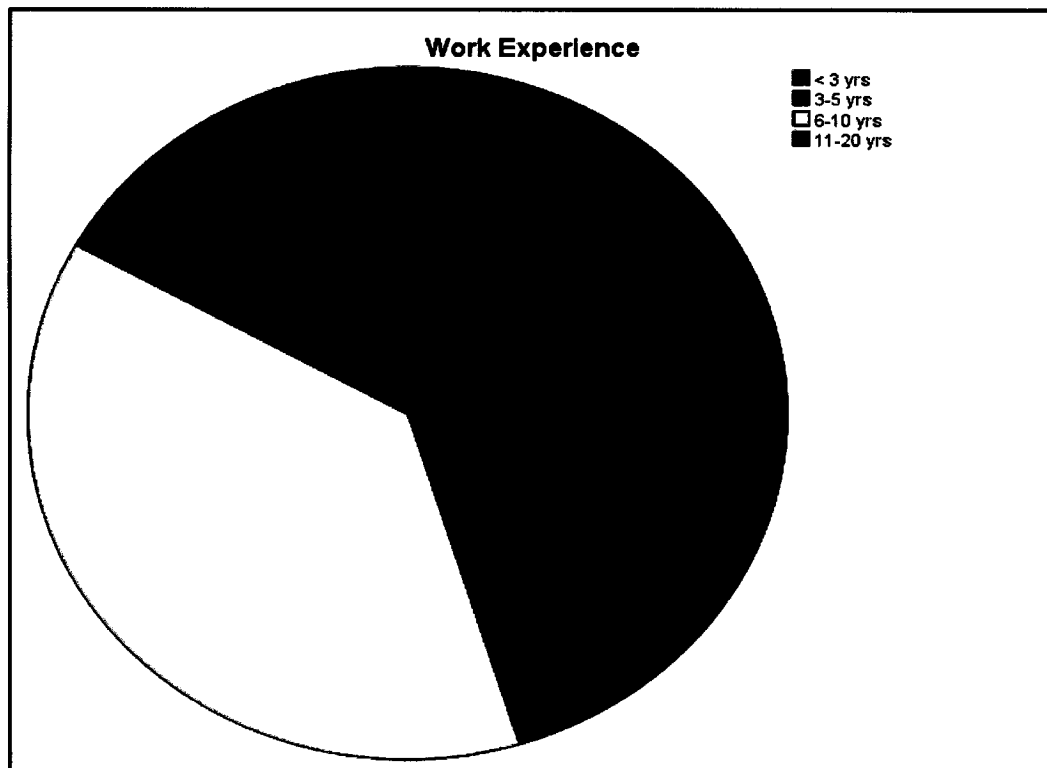
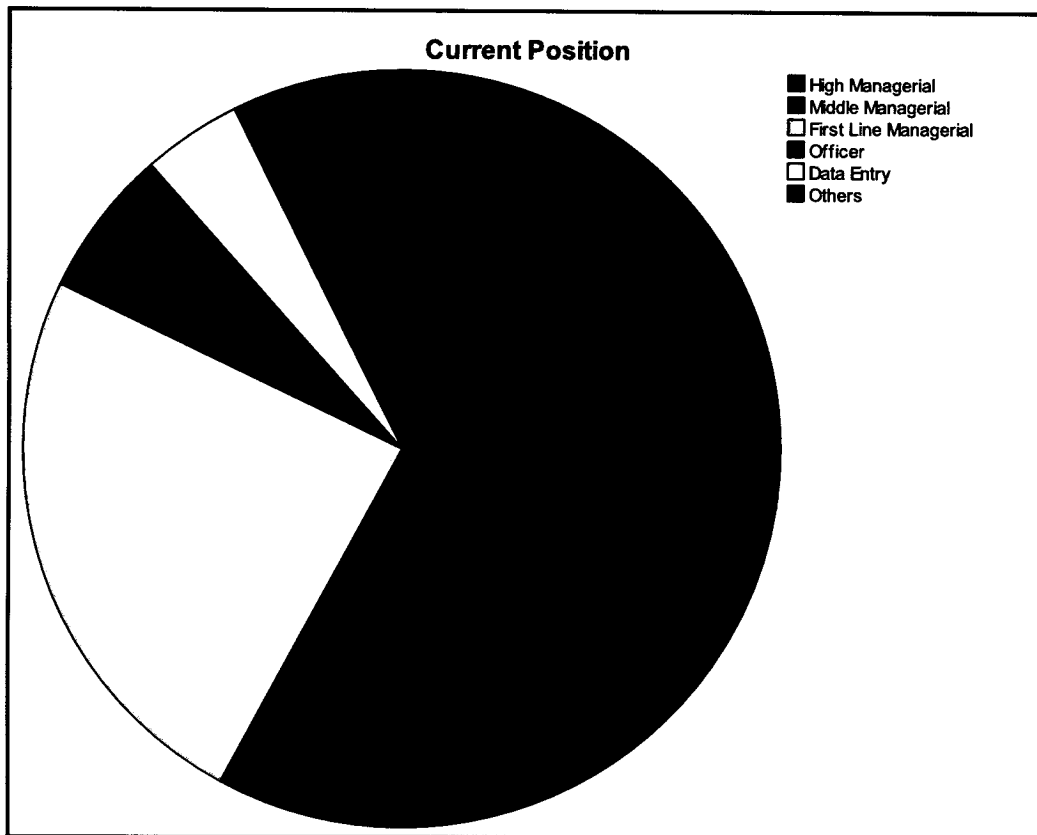


Figure 5: Work Experience



**Figure 6: Current Position**

In the following tables 12 and 13, the central tendency of the distribution used is “the Mean” which is the estimate of the "center" of the distribution of values, and the “Standard Deviation” refers to the spread of the values around the central tendency. Tables 12 and 13 show the descriptive statistics among each item studied including Purchasing Clusters (PC) and Performance Outcomes (PO) respectively.

### Descriptive Statistics

	N	Mean	Std. Deviation
SP: Purchasing Included in Strategic Plan	95	4.06	1.029
SP: Purchasing Performance Measured by Firm's Success	95	3.92	1.059
SP: Purchasing Development Focuses on Competitive Strategy	95	3.95	1.076
SP: Purchasing Focuses on Long Term Risky Issues	95	3.60	1.189
SP: Purchasing Has A Formal Long Range Plan	95	3.91	.968
STA: Supportive Top Management	95	4.00	.989
STA: Purchasing Vital to Company Strategy	95	4.13	.970
STA: Purchasing Important to Top Management	95	4.06	.873
INT: Regular Strategy Meetings	95	3.68	1.065
INT: Initiate Changes in End Products and Inputs	95	3.80	1.068
INT: Market and Price/Cost Analysis	95	3.91	.979
INT: New Product Design	95	3.59	.917
INT: Process Design and Improvement	95	3.86	.930
INT: Strategic Contributions to The Company	95	3.98	1.000
SKL: Monitor and Interpret Changes	95	3.92	1.018
SKL: Technical Capabilities	95	3.89	1.047
SKL: Improve Total Cost	95	3.94	.976
SKL: Perseverance, Imagination, Decisiveness, and Interpersonal Skills	95	3.96	.922
Valid N (listwise)	95		

**Table 12: PC Descriptive Statistics**

### Descriptive Statistics

	N	Mean	Std. Deviation
SIN: Information Technology	95	3.86	1.097
SIN: Strategic Partnership	95	3.84	1.003
SIN: Participation in Design	95	3.87	1.013
SIN: Participation in Process	95	3.64	.956
SIN: Quick Ordering System	95	3.85	1.010
SIN: Stable Procurement through Network	95	3.78	1.084
SRO: Improve Product Design	95	3.79	1.051
SRO: Improve Process Design	95	3.63	1.082
SRO: Improve Product Quality	95	3.63	.935
SRO: Reduce Lead	95	3.92	1.018
SRO: Increase Product Sales	95	3.96	.944
PRO: Product Quality	95	4.24	.896
PRO: Delivery Speed	95	4.09	.935
PRO: Delivery Reliability	95	4.18	1.010
PRO: Flexible Production	95	3.91	1.042
FIN: Return on Investment	95	4.19	1.065
FIN: Return on Sales	95	4.21	1.119
FIN: Profit Growth	95	4.21	.898
FIN: Return on Total Assets	95	4.23	1.086
Valid N (listwise)	95		

**Table 13: PO Descriptive Statistics**

## 4.1.2 Factor Analysis

Principal Component analysis (PCA) was used to interpret series of data into meaningfully important components. SPSS identifies PCA as Factor Analysis. However, the difference between PCA and Factor Analysis is in PCA, data is reduced to explain total variance or total variability associated with each variable in the analysis. In Factor Analysis, (also known as Common Factor Analysis) the only percentage of variance included into the model is the variance that is shared between the variable under study and the rest of variables included in the analysis. The difference is obvious in the correlation matrix where diagonal elements in PCA are equal to 1.

### 4.1.2.1 Exploratory Factor Analysis (EFA)

As discussed in chapter 3, the researcher conducted an EFA to identify a viable factor structure for dependent and independent variables. EFA was conducted to determine the factor structure of the 19 items of Performance outcomes (PO) as a dependent variable and 18 items of Purchasing Clusters (PC) as an independent variable using the following guidelines:

- Principal components was chosen as the extraction model
- Varimax rotation was selected as it ensures that factors grouping are not correlated
- Listwise missing values was used
- Factors were extracted based on Eigenvalues  $>1$
- Statistically significant components tested by Bartlett's test of sphericity were considered
- KMO (Kaiser-Meyer-Olkin) measure of sampling adequacy was considered where values  $>0.7$  showed positive correlations and justified performing component analysis
- $\pm 0.40$  was the factor loading standard

Items with absolute primary factor loadings  $\geq 0.40$  were retained. Items not meeting this criterion was removed one item at a time. Factor analyses iterations were repeated until a solution was attained in which all the items included in the analysis met all criteria.

#### 4.1.2.2 Confirmatory Factor Analysis (CFA)

The CFA yielded one factor solution for each dependent variable studied.

- 1- Purchasing Clusters (PC) variables were extracted into a 15-item statistically significant component.

**Component Matrix<sup>a</sup>**

	Component
	1
SP: Purchasing Included in Strategic Plan	.672
SP: Purchasing Performance Measured by Firm's Success	.701
SP: Purchasing Development Focuses on Competitive Strategy	.572
SP: Purchasing Focuses on Long Term Risky Issues	.449
STA: Supportive Top Management	.449
STA: Purchasing Vital to Company Strategy	.575
STA: Purchasing Important to Top Management	.489
INT: Regular Strategy Meetings	.481
INT: Initiate Changes in End Products and Inputs	.572
INT: Market and Price/Cost Analysis	.538
INT: Strategic Contributions to The Company	.439
SKL: Monitor and Interpret Changes	.530
SKL: Technical Capabilities	.645
SKL: Improve Total Cost	.660
SKL: Perseverance, Imagination, Decisiveness, and Interpersonal Skills	.520

**Table 14: PC Component Matrix**

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.764
Bartlett's Test of Sphericity	Approx. Chi-Square	398.763
	Df	105
	Sig.	.000

**Table 15: PC KMO & Bartlett's Test**



Tables 14 and 16, show in detail as the opposite of grouping the purchasing functions and performance outcome. So that can make clearer the correlation between the purchasing functions and purchasing outcome in each organization. Therefore, the general conclusion can be beneficial to show strengths and weaknesses in each and every part of the studied items.

The 15 statistically significant PC items included the four factors as discussed in the literature before. They included strategic planning excluding the existence of a formal long range purchasing plan as a meaningful function due to the fact that Lebanon is considered at the moment of conducting the study as risky country and going through an economic crisis; included all purchasing status; from the part discussing internal integration the new product design as well as process design and improvement were dropped as the majority of the functioning organizations are not manufacturing ones but more into services, import and export, knowing that for some organizations this was a meaningful and important part and included all purchasing skills items.

- 2- Performance Outcomes (PO) variables were extracted into 16-item statistically significant component.

**Component Matrix<sup>a</sup>**

	Component
	1
SIN: Information Technology	.464
SIN: Strategic Partnership	.571
SIN: Participation in Design	.515
SIN: Participation in Process	.509
SRO: Improve Product Design	.435
SRO: Improve Process Design	.458
SRO: Improve Product Quality	.533
SRO: Reduce Lead	.620
PRO: Product Quality	.558
PRO: Delivery Speed	.614
PRO: Delivery Reliability	.719
PRO: Flexible Production	.515
FIN: Return on Investment	.566
FIN: Return on Sales	.572
FIN: Profit Growth	.684
FIN: Return on Total Assets	.479

**Table 16: PO Component Matrix**

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.748
Bartlett's Test of Sphericity	Approx. Chi-Square	579.781
	df	120
	Sig.	.000

**Table 17: PO KMO & Bartlett's Test**

The 16 PO statistically significant extracted factors correlated with the factors discussed in the literature above. The quick ordering system was considered irrelevant and meaningless; therefore it was excluded from the supplier integrations as well as the stable procurement through network was also omitted for the simple reason that most if not all the Lebanese organizations did not even think of implementing this option into their management therefore, purchasing departments. Increased product sales were added to the list of meaningless functions by the organizations themselves so it joined the rest of functions in the excluded group and it was omitted from the supplier relationship improvement. While all product performance outcomes and all financial performance was included.

#### 4.1.3 Linear Regression

##### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	F Change
1	.590 <sup>a</sup>	0.348	0.341	0.811893	0.348	49.604

##### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4.913E-18	.083		.000	1.000
	PC Regression	.590	.084	.590	7.043	.000

**Table 18: PC & PO Model Summary**

Linear regression was used in this study to model the relationship between the variables. It was used to both predict the relationships between Purchasing Clusters (PC) and Performance Outcomes (PO); as well as quantify the strength of the relationships.

The relationship between PO (as a dependent variable) and PC (as an independent variable) was analyzed using SPSS through linear regression. The factors extracted, as discussed before, showed positive but weak correlation which was statistically significant.

In order to better understand the relationships between all items of the study, linear regression was made to test each item of independent PC with the extracted factor of PO as shown in Table 19.

	<b>B Coefficient</b>	<b>Sig.</b>
SP: Purchasing Included in Strategic Plan	.17	.133
SP: Purchasing Performance Measured by Firm's Success	.18	.098
SP: Purchasing Development Focuses on Competitive Strategy	.01	.897
SP: Purchasing Focuses on Long Term Risky Issues	.19	.039
SP: Purchasing Has A Formal Long Range Plan	.05	.609
STA: Supportive Top Management	-.04	.707
STA: Purchasing Vital to Company Strategy	.13	.251
STA: Purchasing Important to Top Management	.12	.357
INT: Regular Strategy Meetings	.00	.995
INT: Initiate Changes in End Products and Inputs	-.04	.694
INT: Market and Price/Cost Analysis	.05	.634
INT: New Product Design	.17	.106
INT: Process Design and Improvement	.24	.038
INT: Strategic Contributions to The Company	.04	.665
SKL: Monitor and Interpret Changes	-.01	.948
SKL: Technical Capabilities	-.06	.519
SKL: Improve Total Cost	-.12	.340
SKL: Perseverance, Imagination, Decisiveness, and Interpersonal Skills	.31	.011

**Table 19: Statistically Independent Factors**

Table 19 shows that only three statistically significant independent PC factors have direct positive significant effect on PO when studied independently ( $\text{sig} < 0.05$ ). They include Purchasing focus on long term risky issues, process design and improvement, and perseverance, imagination, decisiveness, and interpersonal skills.

For further analysis, linear regression was performed to study the significant relationship between PC items as independent variables and PO as dependent variables. SPSS was used where significance was confirmed based on significance values below 0.05 with 95% confidence intervals.

<b>PC: Purchasing Clusters (Independent Variables)</b>	
<b>SP 1</b>	Purchasing Included in Strategic Plan
<b>SP 2</b>	Purchasing Performance Measured by Firm's Success
<b>SP 3</b>	Purchasing Development Focuses on Competitive Strategy
<b>SP 4</b>	Purchasing Focuses on Long Term Risky Issues
<b>SP 5</b>	Purchasing Has A Formal Long Range Plan
<b>STA 1</b>	Supportive Top Management
<b>STA 2</b>	Purchasing Vital to Company Strategy
<b>STA 3</b>	Purchasing Important to Top Management
<b>INT 1</b>	Regular Strategy Meetings
<b>INT 2</b>	Initiate Changes in End Products and Inputs
<b>INT 3</b>	Market and Price/Cost Analysis
<b>INT 4</b>	New Product Design
<b>INT 5</b>	Process Design and Improvement
<b>INT 6</b>	Strategic Contributions to The Company
<b>SKL 1</b>	Monitor and Interpret Changes
<b>SKL 2</b>	Technical Capabilities
<b>SKL 3</b>	Improve Total Cost
<b>SKL 4</b>	Perseverance, Imagination, Decisiveness, and Interpersonal Skills

**Table 20: PC List of Functions**

<b>PO: Purchasing Outcomes (Dependent Variables)</b>	
<b>SIN 1</b>	Information Technology
<b>SIN 2</b>	Strategic Partnership
<b>SIN 3</b>	Participation in Design
<b>SIN 4</b>	Participation in Process
<b>SIN 5</b>	Quick Ordering System
<b>SIN 6</b>	Stable Procurement through Network
<b>SRO 1</b>	Improve Product Design
<b>SRO 2</b>	Improve Process Design
<b>SRO 3</b>	Improve Product Quality
<b>SRO 4</b>	Reduce Lead
<b>SRO 5</b>	Increase Product Sales
<b>PRO 1</b>	Product Quality
<b>PRO 2</b>	Delivery Speed
<b>PRO 3</b>	Delivery Reliability
<b>PRO 4</b>	Flexible Production
<b>FIN 1</b>	Return on Investment
<b>FIN 2</b>	Return on Sales
<b>FIN 3</b>	Profit Growth
<b>FIN 4</b>	Return on Total Assets

**Table 21: PO List of Functions**

	SIN 1	SIN 2	SIN 3	SIN 4	SIN 5	SIN 6	SRO 1	SRO 2	SRO 3	SRO 4	SRO 5	PRO 1	PRO 2	PRO 3	PRO 4	FIN 1	FIN 2	FIN 3	FIN 4
SP 1														SIG					
SP 2	SIG																SIG		SIG
SP 3																			SIG
SP 4					SIG				SIG		SIG								
SP 5										SIG									SIG
STA 1		SIG																	
STA 2				SIG															
STA 3													SIG						
INT 1								SIG											
INT 2	SIG						SIG					SIG		SIG					
INT 3	SIG							SIG				SIG				SIG			
INT 4																			SIG
INT 5			SIG	SIG			SIG								SIG				
INT 6																			
SKL 1					SIG	SIG											SIG		
SKL 2																	SIG		
SKL 3																			
SKL 4													SIG	SIG		SIG	SIG		

**Table 22: Significant Correlations between PC & PO**

When linear regression was performed on each item of the 18 independent variable (PC) items with respect to the 19 dependent variable (PO) items, some significant correlations were detected as shown in Table 22.

The significance correlation between the different factors presented in Table 22 show us that the purchasing included in strategic plan is positively affecting the product quality; purchasing performance measured by firm's success is positively affecting the information technology, return on sales, return on total assets; purchasing development focuses on competitive Strategy is positively affecting the return on total assets;

Purchasing focuses on long term risky issues is positively affecting the Quick Ordering System, improve product quality, increase product sales; purchasing has a formal long range plan is positively affecting the reduce lead, profit growth; supportive top management is positively affecting the strategic partnership;

Purchasing vital to company strategy is positively affecting the participation in process; purchasing important to top Management is positively affecting the delivery speed; regular strategy meetings is positively affecting the improve process design; initiate changes in end products and inputs is positively affecting the information technology, improve product design, product quality, delivery reliability; market and Price/Cost analysis is positively affecting the information technology, improve process design, product quality, return on investment;

New product design is positively affecting the return on total assets; process design and improvement is positively affecting the participation in design, participation in process, improve product design, flexible production; monitor and interpret changes is positively affecting the quick ordering system, stable procurement through network, return on investment;

Technical capabilities is positively affecting the return on investment; perseverance, imagination, decisiveness, and interpersonal skills is positively affecting the delivery speed, delivery reliability, return on investment, return on sales

## **4.2 Summary of Findings**

Based on the results of all data analyses, the findings were summarized to answer two research questions and two hypotheses.

### **4.2.1 Findings**

Based on factor analysis, 15 PC items were statistically significant as principal components that can be meaningfully important in analyzing Purchasing Clusters. 16 PO items were statistically significant as principal components that can be meaningfully important in analyzing Performance outcomes.

#### **4.2.1.1 Research Question 1 & Hypotheses 1**

As Table 14 shows, the 15 statistically significant PC items included the four factors as discussed in the literature before. Purchasing functions within Lebanese organizations can be classified based on their level of involvement in strategic planning, status in the eyes of top management, degree of internal integration, and purchasing skills.

First purchasing cluster is defined as purchasing involvement in strategic planning that includes review of plan to match changes and inclusion of relationships with suppliers and excludes formal long range plan.

Second purchasing cluster is defined as purchasing status which includes top management support, importance to strategy, and importance to top managers.

Third purchasing cluster is defined as internal integration that includes extent of integration with other areas in the firm such as marketing and strategy making and excludes new product design and process design and improvement.

The fourth purchasing cluster is defined as purchasing skills that includes the abilities to monitor changes in supplier market, technical capabilities, total cost reduction, and interpersonal skills.

#### 4.2.1.2 Research Question 2 & Hypotheses 2

The most significant Purchasing Clusters (PC) contributing to the Performance Outcomes (PO) was studied by SPSS. This positive correlation was statistically significant.

$$PO = 0.59 PC - 4.913 e-18.$$

The above equation as generated from SPSS shows that Performance clusters in the studied Lebanese organizations positively and significantly affects performance outcome.

### 4.3 Conclusion

The majority of Lebanese organizations which responded to the study have more than 200 employees (48.4%) and most of them are Bachelor holders (84.2%). The respondents' work experience was equally distributed. The targeted respondents have current managerial positions (82.1%) including high managerial positions (11.6%), middle managerial positions (46.3%), and first line managerial positions (24.2%). The importance the education level and job experience was identified by (Barclay 1991) "Departments whose members on average have more jobs experience, life experience, and education may be better prepared to cope with purchasing situations in more constructive and cooperative ways. In addition, they may be able to recognize situations ripe for conflict and may be experienced enough to defuse them".

The presented descriptive statistics described the basic features of the data in the study using the "Mean" to estimate the center of distribution of values and the "standard deviation" to estimate the spread of the values around the "Mean". The PC and PO items described were significant and important since they were closer to the "Agree" than to the "Neutral" scale.

Principal Component analysis (PCA) was used to interpret series of data into meaningfully important components; the data is reduced to explain total variance or total variability associated with each variable in the analysis. In Factor Analysis, the only percentage of variance included into the model is the variance that is shared between the variable under study and the rest of variables included in the analysis. The difference is obvious in the correlation matrix where diagonal elements in PCA are equal to 1.



EFA was conducted to identify a viable factor structure for dependent and independent variables, and to determine the factor structure of the 19 items of (PO) as a dependent variable and the 18 items of (PC) as an independent variable using the: Principal components, Varimax rotation, Listwise missing values, Factors were extracted based on Eigenvalues  $>1$ , Statistically significant components tested by Bartlett's test of sphericity were considered, KMO (Kaiser-Meyer-Olkin) measure of sampling adequacy was considered where values  $>0.7$  showed positive correlations and justified performing component analysis,  $\pm 0.40$  was the factor loading standard (i.e. items with absolute primary factor loadings  $\geq 0.40$  were retained. Items not meeting this criterion was removed one item at a time). The Factor analyses iterations were repeated until a solution was attained in which all the items included in the analysis met all criteria.

Based on the EFA, the CFA resulted in one factor solution for the dependent variables studied and included 15 statistically significant components out of 18 items; and resulted in one factor solution for the independent variables studied and included 16 statistically significant components out of 19 items

The 15 statistically significant PC items included all strategic planning components except the existence of a formal long range purchasing plan as a meaningful function due to the fact that Lebanon is considered at the moment of conducting the study as risky country and going through an economic crisis; included all purchasing status; from the part discussing internal integration the new product design as well as process design and improvement were dropped as the majority of the functioning organizations are not manufacturing ones but more into services, import and export, knowing that for some organizations this was a meaningful and important part and included all purchasing skills items.

In the 16 statistically significant PO, the quick ordering system which is defined as a business strategy for shortening the cycle time for a product to be made, distributed, and sold at retail and for reducing the overall cumulative inventory of that product in the supply chain. Quick ordering systems are dependent on building long term relationships, sharing information, and shared investment in technology and facilities with suppliers. However, this will work only if senior management drives the organizational and cultural change necessary to ensure that all levels of the supply chain are implementing the required system and it helps to build not only good relations with customers but also to obtain the value for particular members cooperating in value creating process (Branska, 2010).

The conducted analyses showed that quick ordering systems in the Lebanese Companies are not significant and lack the management support and motivation to make the necessary changes to develop such systems; therefore it was excluded from the supplier integrations as well as the stable procurement through network was also omitted and as discussed by

(YIFENG ZHANG, 2010),(1) supply networks tend to evolve into a set of separate supply chains when switch cost is high and into an integrated network when switch cost is low, (2) a responsive ordering policy adopted by distributors is more conducive to the integrated network configuration than a non-responsive policy, and (3) the lack of coordination among retailers in their dynamic choice of procurement strategies hurts not only the overall system performance, but also retailers themselves, the exclusion is normal since the Lebanese Organizations did not implement a quick ordering system and lacked coordination with other retailers due to the competitive status of those companies and for a simple reason that most, if not all the Lebanese organizations did not even consider implementing this option into their management, therefore, purchasing departments.

The contribution of the supplier to the "Increased product sales" were added to the list of meaningless functions by the organizations and was omitted from the supplier relationship improvement since supplier partnership development is dependent on top management commitment and on the philosophical view of purchasing and the Lebanese companies did not consider this factor as significant.

The Linear Regression was used to both predict the relationships between Purchasing Clusters (PC) and Performance Outcomes (PO); as well as to quantify the strength of the relationships. Thus, the factors extracted, showed positive but weak correlation which was statistically significant.

Moreover, linear regression was made to test each item of PC with the 19 items of PO, in order to better understand the relationships between all items of the study. And three statistically significant independent PC factors were found having direct positive significant effect on PO when studied independently ( $\text{sig} < 0.05$ ).

They include purchasing focus on long term risky issues within the strategic planning and since Long-term planning identifies objectives that allow for the development of strategies to

allocate resources efficiently and as a result, the firm realizes improvement in the short term while working to support long-term goals. Such positive results are possible since the purchasing function is supportive to, and sensitive to, long-term corporate objectives, process design and improvement within the internal integration.

It was found by (McGinnis & Vallopra, 1999) that processes contribute to competitive advantage, purchasing plays a major role in process development and improvement in all industry categories while organizations that ignore the potentials of process development/improvement for mature products may lose competitive advantage in the market, and perseverance, imagination, decisiveness, and interpersonal skills within the purchasing skills showed that purchasing have developed the required skills and understanding to contribute effectively to the corporate strategy.

The Linear Regression showed the significance of the purchasing clusters within the Lebanese companies, and that these affect the performance outcome.

As a result of the data presented and analyzed the first research question and hypotheses were found to be significant in the Lebanese organizations and included the four factors as discussed in the literature before; level of involvement in strategic planning, from the view of top management, degree of internal integration, and purchasing skills, while excluding three indicators from the four variables that are: formal long range plan that was excluded due to the economic and political situation in Lebanon, new product design was irrelevant since the majority of the companies in the Lebanese Market are not manufacturing organizations, and process design and improvement were irrelevant since management did not realized the importance the process design have on competitive advantage.

The positive correlation between PC and PO was statistically significant as per the linear equation  $PO = 0.59 PC - 4.913 e-18$ ; hence the Performance clusters in the studied Lebanese organizations positively and significantly affects performance outcome and this answer the second research question and hypotheses

As shown in the study, the Lebanese organizations have developed significant and important purchasing functions that follow the international norms, but they are facing challenges from

the external environment due to the political and economic situation of the country. The majority of top managements in these companies did not realize the importance of the process design to gain a competitive advantage; as well as the management did not conduct any cultural and organizational changes in order to develop purchasing network, implement a quick ordering system, and the supplier involvement in increasing the product sales. The Managerial implications, recommendations, limitations of the study, and the final conclusion will be developed in the next chapter.

## **Chapter 5: Conclusions and Recommendations**

This chapter summarizes the research process, develops conclusions from the research findings, and discusses the managerial implications. Also summarized are limitations of the research and recommendations to further develop Purchasing clusters at the Lebanese Organizations to improve Performance outcomes.

### **5.1 Summary of the Research**

As mentioned in the literature review, many studies in different industries worldwide have found positive links between purchasing characteristics and organizational performance.

(Noordewier, 2009), has discussed purchasing characteristics for repetitively used industrial supplies based on transaction cost analysis. He demonstrated that performance in terms of acquisition costs is enhanced when firms introduce more relational elements into their purchasing clusters. Possession cost performance improved when larger volumes of items were purchased (Noordewier, 2009) .

In a different study, (Kaynak, 2002) has demonstrated the positive and direct relationship between acquisition techniques and firm performance including supplier value-added, a concept that joins supplier-buyer cooperation and increased supply of quality materials and quantities delivered, which refers to frequent and timely delivery of supplied materials in the right quantities. The finding that top management commitment to acquisition is directly or related to purchasing techniques highlights the importance of leadership in implementing change in organizations (Kaynak, 2002). Carr has also proved that purchasing skills are positively related to strategic purchasing, a firm's financial performance, and supplier responsiveness. (Carr A. a., 2000)

Compared to previous studies, this research directly tested the relationships between Purchasing Clusters and Performance Outcomes in the Lebanese organizations. This research was done in 95 Lebanese organizations that had well developed purchasing departments. This research provided a clear understanding of the statistically significant items that characterize purchasing clusters in the Lebanese organizations. It also quantified the positive correlations between the selected variables under study.

The primary purpose of this research was to investigate the purchasing clusters of Lebanese organizations and to study the effect of purchasing clusters on organizational performance in the Lebanese market. In order to achieve this research objective, two research questions and two related hypothesis were addressed.

- How are purchasing functions within Lebanese Organizations classified?
- How do purchasing functions at the Lebanese organizations affect performance outcomes?

In this study, these research questions have been translated into the following two hypotheses:

- H1. Purchasing functions within Lebanese organizations can be classified based on their level of involvement in strategic planning, status in the eyes of top management, degree of internal integration, and purchasing skills.
- H2. Based on different configurations of purchasing characteristics, different purchasing functions will have higher levels of performance outcomes.

To answer the research questions and to test the hypotheses, analyses were conducted based on collected data from 95 Lebanese organizations. The researcher developed a research instrument adopted from (Womack, 1990), (Carter J. a., 1993), (Hendrick, 1993),(Carr A. a., Strategically managed buyer-supplier relationships and performance outcomes, 1999), (Carr A. a., 2000), (Carr A. a., The impact of purchasing and supplier involvement on strategic purchasing and its impact on firm's performance, 2002), (Narasimhan R. a., 2001)and (Narasimhan R. a., 2002)to measure indicators of purchasing clusters and performance outcomes.

Using SPSS, reliability and descriptive testing were employed to ascertain internal consistency. Then, principal component analysis was conducted to identify component structures for each variable. Finally, linear regression technique was used to investigate the relationships among variables and to illustrate the impact of PC on PO

## **5.2 Main Findings**

### **5.2.1 Descriptive Statistics**

The scores on the 18-item scale shown in table 12 that measured PC as an independent variable ranged between  $3.59 \pm 0.92$  on the item "New Product Design"; &  $4.13 \pm 0.97$  on the item "Purchasing vital to company strategy". The average of the 18 items scored 3.89. The results signified that the scores of the 18 items were neutral and statistically reliable.

This indicates that purchasing executives at Lebanese organizations perceived good feedback regarding purchasing characteristics at their organizations.

The scores on the 19-item scale that measured PO as a dependent variable shown in table 13 ranged between  $3.6 \pm 0.8$  on both items "Improve Product Quality" and "Improve Process Design" &  $4.24 \pm 0.8$  on the item "Product Quality".

The average of the 19 items scored 3.94. The results were also neutral and statistically significant.

Respondents have perceived the positive effect of PC on PO in the Lebanese organizations.

### **5.2.2 Findings from Principal Component Analysis**

The PC variables were extracted into 15-item statistically significant component including strategic planning except the existence of a formal long range purchasing plan, purchasing status, internal integration excluding new product design and process design and improvement, and all purchasing skills items.

The 16 PO statistically significant extracted factors correlated with the factors included supplier integration outcomes excluding quick ordering system and stable purchasing through network, supplier relationship improvement excluding increased product sales, all product performance outcomes and all financial performance results.

### **5.2.3 Findings from Linear Regression**

Linear regression was used to quantify the positive influence of PC on PO. SPSS generated an equation based on the statistically significant components of the 2 variables:

$$PO = 0.59 PC - 4.913 e-18.$$

Detailed regression of each item of dependent variables with the rest of independent variables was shown in chapter 4.

### **5.3 Limitation of the Research**

The study was allocated at 95 Lebanese organizations that have a well-developed purchasing department. For this reason, this study doesn't give a true representation of all the Lebanese organizations since a majority of well-developed Lebanese firms don't have a purchasing department.

Many Lebanese organizations refused to participate in the research for different reasons.

The questionnaire was prepared in the English language. This has led to choosing a non-probability convenience sampling.

This study focuses only on the influence of PC on PO in Lebanese organizations whereas many elements, that strongly influence PO, weren't discussed.

### **5.4 Managerial Implications**

This study confirms a positive impact regarding the managements, CEOs and employees encountered. These were well educated especially regarding the purchasing as well as marketing. Most of these are familiar with the western system whether American or European as they attended foreign universities and completed their degrees according the western universities standards.

This research establish the importance of the Lebanese trading and management in ensuring quality of services and provides the best of these in the area to help reduce inefficient procedures and achieve optimal use of resources



Currently there appears to be a premium on having a technical degree in the purchasing field but this is changing to a desire for those with Associates or Bachelor's degrees with an emphasis in purchasing. As is true in the USA, Lebanese purchasing organizations strongly desire a candidate who possesses a technical undergraduate degree coupled with an MBA. Thus, marketers will be calling on a knowledgeable and fairly sophisticated individual in the buying office. These purchasing managers will continue to gain skills in the future as purchasing executives boost the amount and level of training they provide to their staffs.

This research has argued that purchasing functions affect the performance outcome. Purchasing functions should be well developed, monitored, and evaluated in order to increase organizational performance outcome. The research argues for significance of studied characteristics, i.e. significance of the strategic planning, status from the view of top management, internal integration, and skills level. An analysis has been presented to allow managers to understand the importance of the characteristics and their effect on the organizational performance in order to give more attention and develop these characteristics. This research has a number of implications for managers at the level of the firm.

Scholars and practitioners agree that it is vitally important for firms to develop their purchasing functions and follow set practices and procedures. Managers in firms must realize the important role that supply management can play in delivering business benefits to the organization. If purchasing is unaware of the strategic intent of the firm it is likely to obstruct the increase of profit; this will result in the firm not achieving its full business benefit. This point is illustrated succinctly with the study of 95 Lebanese companies.

To note that 70% of the contacted companies in Lebanon do not have a purchasing department and are unaware of the importance of the purchasing characteristics to the organization performance outcome and the attribution to gain a competitive advantage in the market. Managers within companies should be aware of the new business trends and studies to be implemented effectively within their companies. As for the studied companies, awareness of the purchasing characteristics were significant, but managers should put more emphasis on the excluded part of the research i.e. a formal long range purchasing plan, new product design, process design and improvement; and develop them in order to maximize the performance outcome.

Managers should consider what functions they need to focus upon to increase the firm's strategic performance outcome and gain a competitive advantage in the market. If the firm is

not supportive to the purchasing department a differentiated approach should be considered, managers must make sure that it has the capabilities and competencies within its staff to manage these functions effectively. Finally, they will need to make sure that the performance measures are adjusted to track these characteristics and develop them.

## **5.5 Recommendations**

Many excluded parts mentioned in the study should be re-implemented within the Lebanese organizations managements in order to master the market and the skill as well as the leverage these organizations seek whether now or in the future.

Some of the companies and according to the study have not heard of purchasing and do not have a clue on the importance of the function. General workshops and seminars could be done by these companies in order to improve their business in addition to their management knowledge.

Moreover, Training and Development departments should be founded so that they can trade along new trends in management.

Purchasing should form a group of employees that have the necessary expertise and knowledge about the materials and services available in the market and important to the company in order to consult with them regularly and to make sure that the applicable procedures, policies, practices, and information within the firm are always in line with the market progress and updates.

Purchasing should always be aware of the know-how of its providers and make the necessary coordination in order to profit from their knowledge and capacities. The providers are able to offer valuable information about the market, present real data about the cycle time of the orders and how much clients are consuming from each product or service, present actual costs and suggest reasonable substitutes.

Purchasing should have the necessary procedures, policies, basics, and the more effective techniques to deliver the exact outcome better than any other technique well implemented in order to lead the transactions efficiently and effectively. These efficient techniques will contain a prototype that cover up each task the purchasing assumes from the beginning through examination to the appraisal. The outcome of this system is a complete statement that

contains the details concerning the upgrading probable vacancies, the existing options measured and disregarded, the suggestions and results, the executed agenda and the group composition, , and the end assessment. In order for top management to make the right decisions currently and in the future.

In addition, a good purchasing should put in place the precise viable negotiation practice and the best prototypes for assessing and evaluating the life cycle cost, promote and perform each of the tasks the purchasing assume and make sure that these practices are related and in conformance to all valid rules.

To sum up, the managers should also take account of the following important success factors for the purchasing:

- i- The Right Employees: one of the significant and central necessities is to recruit the adequate employees for the job. The purchasing employees should have in common approximately the same values, interests, exterior confronts, environmental closeness and for sure a longing to work properly for the team victory.
- ii- Cautious choice of providers: Purchasing is required to categorize its providers on the basis of being able to meet the requirements of the firm at a proper and efficient level of quality. A thorough research about the providers is needed to ensure that the providers are in a good stable financial status and that if they present any risk to the firm it should be at a minimal level.
- iii- Clear and defined Objectives and Performance procedures and evaluations: The purchasing should put in place broad objectives for every employee within the department as well as precise objectives for every project the purchasing assume. The defined objectives should be developed and implemented on a measurable tools and techniques to able the purchasing to track, assess, and evaluate the performance regularly in order to take necessary corrective actions if needed. Moreover, the purchasing is a part of the firm that is a part of the market and a win-win situation is very important for both the supplier and the purchasing, thus purchasing should be a good client and allow the providers to profit in order for the purchasing to succeed.

- iv- **Trust and Cooperation:** Complete dedication to the purchasing and the organization is requested from every employee as well as an intrinsic belief that the choices and judgments performed by the organization and the purchasing are the correct ones for the company, the department and for every employee.

The government should enact legislation to ensure that proper procurement procedures and safeguards are in place for the public and the private sectors since the Lebanese Laws are old and out dated and does not regulate properly the relations between companies.

## **5.6 Future Research**

Through this study we realized that:

A deeper study may be carried out on a larger sample and more diversified number of companies to study the purchasing characteristics throughout the Lebanese Market.

Companies to be chosen will be twined with companies not having a purchasing department thus serving as a control group.

Future research can explore the driving forces behind purchasing functions and impact on performance outcome. It may be the customer forces, environmental forces or the impact of organizational strategies that drive the development of different purchasing functions. Thus, new hypotheses can be explored and more variables can be added for a better examination of purchasing functions and the relationship with the performance outcome.

If possible, financial figures would help in the real impact of the purchasing characteristics on performance outcome such as rate of return, return on sales, profit growth, and return on total asset, in order for companies to really touch the important and significant effect of the purchasing characteristics, and would give greater insights on how the negative effect could be reversed.

For further study, when testing individual factors on the organizational level, it might be helpful to separate the data into samples with similar statistical or industrial criteria in an attempt to test separately each category and its effects.

## 5.7 Conclusion

The partnerships with the suppliers within the Lebanese companies did not contribute to the product sales increase this can be for a variety of reasons.

The personnel within the firm could have an inner conviction than exterior groups are not knowledgeable enough about the firm industry in order to take the correct decision for the firm, as well as a fear on the exclusive rights of the intangible assets of the firm and the privacy of the data that can be loosed, there could be a fright of working with rivals, and a doubt that the provider will not add any value to the firm processes and business, but we can deal with these reservations with education.

A well informed purchasing is capable to reveal satisfactory awareness about relative issues in order to manage normal worries, procurement should have in place necessary policies, procedures, and methodologies to guard classified data better than the employees can preserve them, purchasing should get better agreements than the rivals, and the added value of purchasing is far away from just cost savings. The distinctive purchasing efforts and specialized categories awareness that every purchasing employee has are the improvements that the firms should consider to benefit.

Formal long range purchasing plan was found meaningful in studies outside Lebanon but was not well developed by the Lebanese companies due to the riskiness of the country to implement a long range plan. As well as the new product design and the process design and improvement were dropped by the majority of the Lebanese functioning organizations since companies are more into services and process design require management support and a cultural change within companies and this is a cost that companies are not willing to undergo.

The quick ordering system are dependent on building long term relationships, sharing information, and shared investment in technology and facilities with suppliers as described in other researches. However, this will work only if senior management drives the necessary organizational and cultural change but in the Lebanese Companies are not significant and lack the management support and motivation to make the necessary changes to develop such systems

The stable procurement through network was also omitted since it is responsive to ordering policy adopted by the company and since the Lebanese Organizations did not implement a quick ordering system the stable procurement through network was not developed.

This research has studied the purchasing clusters in 95 Lebanese organizations. These clusters included strategic planning, purchasing status, internal integration, and personal skills. Significant differences in supplier and organizational-related performance outcomes were found across these four types of purchasing functions.

The study provided useful insights for both practitioners and researchers seeking to uncover different purchasing function configurations, and an empirical classification of purchasing with their differential performance outcomes.

This study also largely corroborates previous frameworks, such as helping to improve our understanding of the evolution of purchasing. Differences among the clusters show that purchasing functions make greater contributions to performance as they advance moving from undeveloped to capable to strategic configurations. Purchasing skills were also shown to be a precondition for purchasing to exert influence within the organization. Our study provides evidence that hinder the capability of the purchasing function toward becoming “strategic” are indeed justified.

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# APPENDICES

## APPENDIX A: 2013 Purchasing Questionnaire

Dear Sir/Madam

I am an MBA candidate majoring in Project and Operations Management at Notre Dame University, Louaize. I would like to invite you to participate in my research. This is a survey for my master's thesis titled "Classification and Effect of Procurement on Organizational Performance in Lebanon."

The purpose of this study is to (1) identify the importance of procurement, and (2) measure the effect of procurement on the organizational performance.

Your help is greatly needed in this study. You will be asked some basic background information and 42 Likert-style questions. You may need not more than 15 minutes to complete the questionnaire.

There are no risks in participation in this research. Your participation in this study is voluntary. In addition, your responses will remain anonymous and no one will be able to attribute any responses to you. You have the right to ask questions about the research. I will be happy to answer them for you. I can be reached at [reineaa@hotmail.com](mailto:reineaa@hotmail.com) and/or [rgabouantoun@ndu.edu.lb](mailto:rgabouantoun@ndu.edu.lb)

Please return the questionnaire to me in the enclosed envelope in one week.

I appreciate the time that you take to complete this survey.

Sincerely

Reine Abou Antoun

MBA Candidate

Notre Dame University

Question 1: What is your organization's industry sector?

- |                                        |                                           |
|----------------------------------------|-------------------------------------------|
| A: Food Products and beverages         | B: Furniture and other manufactured goods |
| C: Other non-metallic mineral products | D: Fabricated metal materials             |
| E: Machinery and equipment             | F: Banks                                  |
| G: Hospitals                           | H: Education                              |
| I: Hotels                              | J: Others (Specify) _____                 |

Question 2: What is the number of employees in your organization?

- |            |                     |            |
|------------|---------------------|------------|
| A: 1-50    | B: 51-100           | C: 101-150 |
| D: 151-200 | E: Greater than 200 |            |

Question 3: What is your highest educational level completed?

- |                                 |                             |
|---------------------------------|-----------------------------|
| A: High School                  | B: BP (Brevet Professional) |
| C: BT (Baccalaureate Technique) | D: TS (Technical Superior)  |
| E: Bachelor                     | F: Master                   |
| G: Doctoral                     | H: Other (Specify) _____    |

Question 4: How many total years have you worked for your organization?

- |                      |                       |               |
|----------------------|-----------------------|---------------|
| A: Less than 3 years | B: 3-5 years          | C: 6-10 years |
| D: 11-20 years       | E: More than 20 years |               |

Question 5: Please specify your current position:

- |                                |                            |
|--------------------------------|----------------------------|
| A: High Managerial Level       | B: Middle Managerial Level |
| C: First Line managerial Level | D: Officer Level           |
| E: Data Entry Level            | F: Other (Specify) _____   |

Question 6: To what extent do you agree with the following statements about purchasing level of involvement in strategic planning within your firm?

Please use the response scale:

1= Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5 = Strongly Agree; DK=Do not Know.

No		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Do not Know
No		1	2	3	4	5	DK
6.1	Purchasing is included in the firm's long strategic planning process.	1	2	3	4	5	DK
6.2	Purchasing performance is measured in terms of its contributions to firm's success.	1	2	3	4	5	DK
6.3	Purchasing professionals' development focuses on the elements of the competitive strategy.	1	2	3	4	5	DK
6.4	Purchasing focus is on longer term issues that involve risk and uncertainty.	1	2	3	4	5	DK
6.5	The purchasing function has a formally written long range plan.	1	2	3	4	5	DK

Question 7: To what extent do you agree with the following statements about the status of the purchasing function within your organization? Please use the response scale:

1= Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5 = Strongly Agree;

DK=Do not Know.

No		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Do not Know
No		1	2	3	4	5	DK
7.1	Top management is supportive of our efforts to improve the purchasing department.	1	2	3	4	5	DK
7.2	In this company, purchasing is considered a vital part of our company strategy.	1	2	3	4	5	DK
7.3	Purchasing views are considered important in most top managers' eyes.	1	2	3	4	5	DK



Question 8: To what extent do the following statements reflect the level of integration of the purchasing function within your firm?

Please use the response scale:

1= Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5 = Strongly Agree;

DK=Do not Know.

No		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Do not Know
		1	2	3	4	5	DK
8.1	Purchasing regularly attends strategy meetings.	1	2	3	4	5	DK
8.2	Purchasing recommends and initiates changes in end products and inputs, based on supply market analysis.	1	2	3	4	5	DK
8.3	A high proportion of purchasing personnel spend time in market and price/cost analysis.	1	2	3	4	5	DK
8.4	Purchasing participates in new product design.	1	2	3	4	5	DK
8.5	Purchasing participates in process design and improvement.	1	2	3	4	5	DK
8.6	Purchasing is measured on strategic contributions to the company (e.g. new products/technologies), versus cost and efficiency contributions.	1	2	3	4	5	DK

Question 9: How much do you agree with the following statements about the level of purchasing personnel's knowledge and skills within your firm?

Please use the response scale:

1= Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5 = Strongly Agree;

DK=Do not Know.

No		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Do not Know
		1	2	3	4	5	DK
9.1	Purchasing professionals have the necessary skills to monitor and interpret changes in the supplier market/product base.	1	2	3	4	5	DK
9.2	Purchasing professionals have the technical capabilities to help our suppliers improve their processes and products.	1	2	3	4	5	DK
9.3	Purchasing professionals have the necessary skills to improve the firm's total cost of doing business with the firm's suppliers.	1	2	3	4	5	DK
9.4	Purchasing professionals demonstrate perseverance, imagination, decisiveness and interpersonal skills.	1	2	3	4	5	DK

Question 10: Please indicate the degree of external integration between your organization and its strategic suppliers:

Please use the response scale:

1= Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5 = Strongly Agree;

DK=Do not Know.

No		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Do not Know
		1	2	3	4	5	DK
10.1	Information exchange with suppliers through information technology.	1	2	3	4	5	DK
10.2	The level of strategic partnership with suppliers.	1	2	3	4	5	DK
10.3	The participation level of suppliers in the design stage.	1	2	3	4	5	DK
10.4	The participation level of suppliers in the process of procurement and production.	1	2	3	4	5	DK
10.5	The establishment of a quick ordering system.	1	2	3	4	5	DK
10.6	Stable procurement through network.	1	2	3	4	5	DK

Question 11: To what extent do you agree with the following statements about the performance of your supplier partnerships?

Please use the response scale:

1= Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5 = Strongly Agree;

DK=Do not Know.

No		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Do not Know
No		1	2	3	4	5	DK
11.1	In the last 2-3 years, we have continued to be able to improve product design performance through these partnerships	1	2	3	4	5	DK
11.2	In the last 2-3 years, we have continued to be able to improve process design through these partnerships	1	2	3	4	5	DK
11.3	In the last 2-3 years, we have continued to be able to improve product quality through these partnerships	1	2	3	4	5	DK
11.4	In the last 2-3 years, we have continued to reduce lead through these partnerships	1	2	3	4	5	DK
11.5	In the last 2-3 years, our partnerships have contributed to increasing product sales	1	2	3	4	5	DK

Question 12: Please rate your current level of your firm's performance on each of the following dimensions compared to that of your major competitors:

Please use the response scale:

1= Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5 = Strongly Agree;

DK=Do not Know.

No		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Do not Know
No		1	2	3	4	5	DK
12.1	Product quality	1	2	3	4	5	DK
12.2	Delivery speed	1	2	3	4	5	DK
12.3	Delivery reliability	1	2	3	4	5	DK
12.4	Flexibility of production	1	2	3	4	5	DK

Question 13: Please rate your current level of your firm's performance on each of the following dimensions compared to that of your major competitors:

Please use the response scale:

1= Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5 = Strongly Agree;

DK=Do not Know.

No		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Do not Know
		1	2	3	4	5	DK
13.1	Return on investment	1	2	3	4	5	DK
13.2	Return on sales	1	2	3	4	5	DK
13.3	Profit growth	1	2	3	4	5	DK
13.4	Return on total assets	1	2	3	4	5	DK

## APPENDIX B: List of Surveyed Companies

#	Company	#	Company
1	AbaSout	39	Karam Bois
2	Abou Jaoude Hospital	40	Keyrouz Hamid Office
3	ACTS	41	Khalil Fattal et Fils
4	ADIR	42	La Briola
5	Agriculture Chemicals	43	LBACC- Fulcurem
6	Akil Ekhwein	44	Liban Fruit
7	Al Ahlya School	45	Librairie du liban
8	Al Akhbar Newspaper	46	Librex
9	Al Ghaba Hotel	47	M.C.C.M
10	Alfa	48	Mac Energy
11	Allianz	49	Malia Group
12	Antaki Holding	50	Mecanix Shops
13	AROPE	51	Medgulf
14	AUB	52	Metacs
15	Barakeh Holding group	53	Metallo Plastica
16	Bassoul&Hnaineh	54	Mike Sport
17	BLF	55	Mitsulift equipment
18	Butec	56	Modern Transportation & Maintenance
19	CAT	57	Monza Cars
20	Charlie Taxi	58	Mr. Brown Restaurant
21	Chateau Ksara	59	Nini Hospital
22	Chery Auto	60	Omatra Liban
23	Chtoura Hospital	61	Petit Café
24	CIR	62	PHARAON HOLDING
25	COGICO	63	Ramco Engineering
26	DAWTEC	64	Red Logistics
27	Dwek Hakim & sons S.A.L	65	Roadster Dinner
28	Ezzat Gallad	66	RYMCO
29	F.A. Kettaneh	67	Saba & Co
30	FDC	68	Sabil SAL
31	Gargour et Fils	69	Sakr Generations
32	GAZZAOUI	70	Sakr Systems
33	General Food-Goods Lebanon	71	Sanyour
34	Hayek Group	72	SAPCO
35	Hotel Le Gabriel	73	Serhal Hospital
36	HST	74	Setraco
37	Inkript	75	SIDIA – Peugeot
38	Izzat Daouk	76	Sky Net

#	Company
77	Sleep Comfort
78	Socodyl
79	Sonaco
80	SPINNEYS
81	Teletrade computer systems
82	Terranet
83	Total Liban
84	Toy Market Trading
85	Toyota
86	Trade Plus
87	Trim Supermarket
88	TSC
89	United Machinery trading and services
90	United Petroleum Company
91	USJ
92	Western Union
93	Zantout SARL
94	Zeenni Steel
95	Zeidan House