The External Factors Affecting the Supply Chain Responsiveness at UNRWA Gaza

العوامل الخارجية المؤثرة في استجابة سلسلة التوريد في الأونروا بغزة

Wafaa A. Nasman

Supervised by

Rushdy Abed Elatief Wady

Associate Professor in Business Administration

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أنا الموقع أدناه مقدم الرسالة التي تحمل العنوان:

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العوامل الخارجية المؤثرة في استجابة سلسلة التوريد في الأونروا بغزة

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نتيجة الحكم على أطروحة ماجستير

بناءً على موافقة شئون البحث العلمي والدراسات العليا بالجامعة الإسلامية بغزة على تشكيل لجنة الحكم على أطروحة الباحثة/ وفاء عبدالله حسن نسمان لنيل درجة الماجستير في كلية *التجارة*/ قسم إدارة الأعمال وموضوعها:

العوامل المؤثرة في استجابة سلسلة التوريد في الأونروا بغزة
Factors Affecting the Supply Chain Responsiveness at UNRWA Gaza

وبعد المناقشة العلنية التي تمت اليوم الأحد 17 جمادي الأولى 1438هـ، الموافق 2017/02/14م الساعة الثانية عشر ونصف مساءً، اجتمعت لجنة الحكم على الأطروحة والمكونة من:

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وبعد المداولة أوصت اللجنة بمنح الباحثة درجة الماجستير في كلية *التجارة/قسم إدارة الأعمال.*

واللجنة إذ تمنحها هذه الدرجة فإنها توصيها بتقوى الله ولزوم طاعته وأن تسخر علمها في خدمة دينها ووطنها.

والله ولي التوفيق،،،

نائب الرئيس لشئون البحث العلمي والدراسات العليا

أ.د. عبدالرؤوف على المنّاعمة

Abstract

Supply chain is a set of facilities, suppliers, customers, products and methods of controlling, purchasing and distributing inventory; it links suppliers and customers in all processes involved in transforming raw materials into the finished products. Supply chain management is a source of competitive advantage and sustainable growth for the organization.

The purpose of this study is to identify and highlight the external factors of supply chain and their effect on the supply chain responsiveness; create awareness of the importance of these proposed factors on supply chain responsiveness and investigate these factors and the proposed relations with supply chain responsiveness. This research was conducted and applied on a population of 50 participants using the questionnaire tool. The collected data for this research is designed to assess to what extent the external factors affect the supply chain responsiveness at UNRWA Gaza.

The findings of this study demonstrate the importance of studying the external factors of supply chain and their effect on the supply chain responsiveness and it is observed that these factors, namely top management commitment, mutual understanding and trust, information sharing and flow, strategic suppliers and customers relationship, organizational factors, have a strong relationship with supply chain responsiveness. Two of these factors have a significant effect on the supply chain responsiveness; these factors are mutual understanding and trust and strategic supplier and customer relationships, but the other factors have no significant effect on the supply chain responsiveness.

The main recommendations for this study are; UNRWA Gaza does need major improvements for the external factors especially the organization factors, information sharing and flow and top management commitment in the supply chain. UNRWA Gaza is doing quite well in terms of mutual understanding and Trust, strategic supplier and customer relationships and responsiveness; however, there is a need for more developing and enhancing these factors.

ملخص الدراسة

تتكون سلسلة التوريد من مجموعة من المرافق والموردين والعملاء والمنتجات آليات التعامل والسيطرة ، وشراء وتوزيع المخزون. ،وهذه السلسلة تقوم بربط الموردين والعملاء في جميع العمليات التي تلزم تحويل المواد الخام إلى منتجات تامة الصنع. وتعتبر إدارة سلسلة التوريد من مصادر الميزة التنافسية والنمو الدائم للمنظمة.

تهدف هذه الدراسة إلى تحديد وتسليط الضوء على العوامل الخارجية لسلسلة التوريد وتأثيرها على استجابتها؛ بالإضافة إلى خلق الوعي لأهمية هذه العوامل المقترحة والتحقق من هذه العوامل وعلاقاتها مع استجابة سلسلة التوريد. وقد أجريت هذه الدراسة وتم تطبيقها على مجتمع الدراسة في وكالة الغوث للاجئين –غزة بمجموع 50 مشاركا وقد تم استخدام الاستبيان كأداة قياس. وقد تم تصميم البيانات التي تم جمعها لأغراض هذه الدراسة لتقييم "إلى أي مدى تؤثر العوامل الخارجية لسلسلة التوريد على استجابتها في الأونروا بغزة.

نتائج هذه الدراسة تظهر أهمية دراسة العوامل الخارجية من سلسلة التوريد وتأثيرها على مدى استجابتها ولقد بينت هذه الدراسة إلى أن العوامل التالية: التزام الإدارة العليا، التفاهم والثقة المتبادلة، تبادل المعلومات وتدفقها، العلاقات الاستراتيجية مع الموردين و العملاء، العوامل التنظيمية والقدرة على الاستجابة ، لديها علاقة قوية مع استجابة سلسلة التوريد. وقد لوحظ أيضا بأن كل من التفاهم والثقة المتبادلة والموردين العلاقات الاستراتيجية مع الموردين و العملاء كان لهما تأثير أكبر على استجابة سلسلة التوريد من باقي العوامل.

لقد خلصت هذه الدراسة إلى أن الأونروا في غزة تحتاج إلى تحسينات كبيرة على صعيد العوامل الخارجية وخاصة العوامل التنظيمية، تبادل المعلومات وتدفقها و التزام الإدارة العليا في سلسلة التوريد. الأونروا في غزة تقوم بعمل جيد جدا من حيث التفاهم والثقة المتبادلة، العلاقات الاستراتيجية مع الموردين و العملاء واستجابة سلسلة التوريد. ومع ذلك فإنه ما زال هناك حاجة لتطوير وتعزيز أكثر لهذه العوامل.

بسم الله الرحمن الرحيم

﴿ يَرْفَعِ اللهُ الَّذِينَ آمَنُوا مِنكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ ﴾

Dedication

This thesis is dedicated to my beloved parent whom I owe myself being and who I am today, I am extremely grateful to them for their encouragement and assistance.

The dedication is also extended to my family members, my sister, brothers and friends for their endless love and support.

The dedication is also extended to those who lit my life with their presence, and stood by my side all the way, to those who have shared with me the most beautiful moments, and left a large indelible footprint in my life.

It is difficult to mention everyone, but thank you all.

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Dr. Mohammad Salem

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Table of Content

List of Tables

List of Figures

List of Appendix

List of Abbreviations

SCM	Supply Chain Management
SC	Supply Chain
UNRWA	United Nations Relief and Work Agency
JIT	Just In Time
SPSS	Statistical Package for the Social Sciences
IT	Information Technology
LPI	Logistics Performance Index
SRM	Supplier Relation Management
SCR	Supply Chain Responsiveness
PNA	Palestinian National Authorities
SCM	supply chain management
PLD	Procurement and Logistics Department
UN	United Nations
KSRM	Key Supplier Relationship Management
ISM	Interpretive Structural Modeling
SME	Small and medium enterprises
HQ	Head Quarter
ERP	Enterprise Recourse Planning
VLS	Vendor Logistics System
HRM	Human Resources Management

Chapter 1
Study Framework and Introduction

1.1 Introduction:

Supply Chain should respond efficiently and effectively quickly to the market by concentrating on the time, quick reaction of response to the market demand. This study examines the effects of these factors into the supply chain responsiveness. The external factors are: top management commitment, mutual understanding and trust, information sharing and flow, strategic supplier partnership and customer relationship and organization factors.

The supply chain management (SCM, hereafter) has received extensive interest from researchers as well as practitioners in the field and is a relevant topic in an increasingly changing and competitive market. It includes the management of all activities and components within a supply chain (Chong,2013)

SCM is a complex topic to understand because it encompasses the management of many activities, and involves multiple role-players across divisional functions and organisations. SCM has been researched by a number of different disciplines including marketing, logistics, information management, operations management, economics, and systems dynamics (Fiala,2004). There are many different variations in the understanding of the term SCM, identify this lack of coherence as one of the issues faced by anyone studying the topic of (Toit & Vlok,2014).

According to Lummus and Vokurka (1999), many confuse the term SCM with elements in the SCM phenomenon - such as supplier partnerships, inventory management, and process integration - instead of acknowledging the comprehensive scope of SCM. There are numerous definitions of the term SCM.

With increasingly sophisticated customer demand, and recent events of supply disruptions; supply chains are required to respond rapidly and perform in an increasingly changing business. It is incumbent on managers and researchers to strive for a better understanding of the responsiveness construct at inter organizational level. Since today's organizations strive to achieve supply chain

responsiveness advantage to survive and thrive in a fast paced business environment (Lee, 2004; Christopher and Peck, 2004; Gosain et al., 2004).

Supply chain responsiveness literature is highly normative and conceptual with research studies primarily being based on case studies (Holweg, 2005; Storey et al., 2005). Swafford et al (2006) however attempt operationalizing the supply chain agility of a firm as a first-order construct. This research adds to the same research pool by operationalizing the supply chain responsiveness construct using different measures than those used in prior empirical studies and further explores the existence of underlying first-order constructs and their measures. It would be interesting to managers and researchers alike, to understand what practices are required to achieve supply chain responsiveness.

SCM is the strategic and systematic control flow of inventory between different parties involved in supply chains. Supply chains are interconnected and interdependent. The co-ordination needed in the collaboration in decision making, the sharing information, technical support, and the raising of supply chain management highlight the internal connection and dependence of supply chains (Hayat et al, 2012)

1.2 Problem statement

SCM focuses on the stream of products and information from the source to the consumer and all other involved parties and divisions that path, such as, procurement, manufacturing, transportation, marketing and logistics.

Various research studies have developed a theoretical framework of these factors in different industries, but this study applied this framework to UNRWA Gaza, specifically. The researcher worked in procurement and logistics department at UNRWA and based on the interview with the head of procurement and logistics department it was highlighted that UNRWA has a huge number of contracts, as much as 3,500 to 4,000 contracts per year, with value of a couple millions of dollars. The cost of each contract depends on the project's size, for example UNRWA Gaza expenditure totaled US$ 124 million in 2002 it had increased to US$ 543 million in 2016. Procurement division has goods, service and construction units and the

logistics division has inbound and outbound logistics units. The head of the office confirmed that despite UNRWA conducting evaluations for its consumers and has a manual for procurement and supply they do not have specific criteria to evaluate the supply chain and make sure it is conforms to the UNRWA standards. Based on the problem statement the study will answer the following questions:

1. **The main question** is **"To what extent do the external factors affect the supply chain responsiveness at UNRWA Gaza?**
2. **Sub-Questions:**
   - To what extend is the top management committed to supply chain at UNRWA Gaza?
   - To what extent is the mutual understanding and trust exist in the supply chain at UNRWA Gaza?
   - To what extent is the information sharing and flow available in the supply chain at UNRWA Gaza?
   - To what extent are the strategic supplier and customer relationships encouraged in the supply chain at UNRWA Gaza?
   - To what extent are the organization factors strong in the supply chain at UNRWA Gaza?

1.3 Research Objectives:

a. Identify and highlight the different factors namely "top management commitment, mutual understanding and trust, information sharing and flow, supplier and customer relationships and organization factors" affecting supply chain responsiveness.

b. Understand the weaknesses and strengths of supply chain responsiveness at UNRWA Gaza.

c. Investigate those factors and the proposed relations with supply chain responsiveness.

d. Suggest recommendation for the supply chain responsiveness at UNRWA Gaza

1.4 Conceptual Framework and Variables":

A. Dependent Variables:

The variable is the Supply Chain Responsiveness.

B. Independent Variables:

The independent variables of the research are the following:

1- Top Management Commitment

2- Mutual Understanding and Trust

3- Information Sharing and Flow

4- Strategic Supplier & Customer Relationships

5- Organization Factors

Figure (1.1): the supply chain responsiveness and the five factors affecting it. Although there are many factors play role on supply chain responsiveness and could be external factors. Based on the extensive literature review especially after reviewing the many studies including (Teller,2016; Rajesh,2015; Slowinski 2015; Thattee,2013; Hayat 2012). So the focus was on these five factors because all of them were relevant to UNRWA Gaza supply chain. This figure is derived from (Hayat et al, 2012)

Independent Variables

```
┌─────────────────────┐
│  Top Management      │
│  Commitment          │
└─────────────────────┘
```

```
┌─────────────────────┐
│  Mutual Understanding│
│  and Trust           │
└─────────────────────┘
```

Dependent Variable

```
┌─────────────────────┐
│  Information Sharing  │
│  and Flow            │
└─────────────────────┘
```

```
┌─────────────────────┐
│  Supply Chain        │
│  Responsiveness      │
└─────────────────────┘
```

```
┌─────────────────────┐
│  Strategic Supplier &│
│  customer            │
│  Relationships       │
└─────────────────────┘
```

```
┌─────────────────────┐
│  Organization Factors│
└─────────────────────┘
```
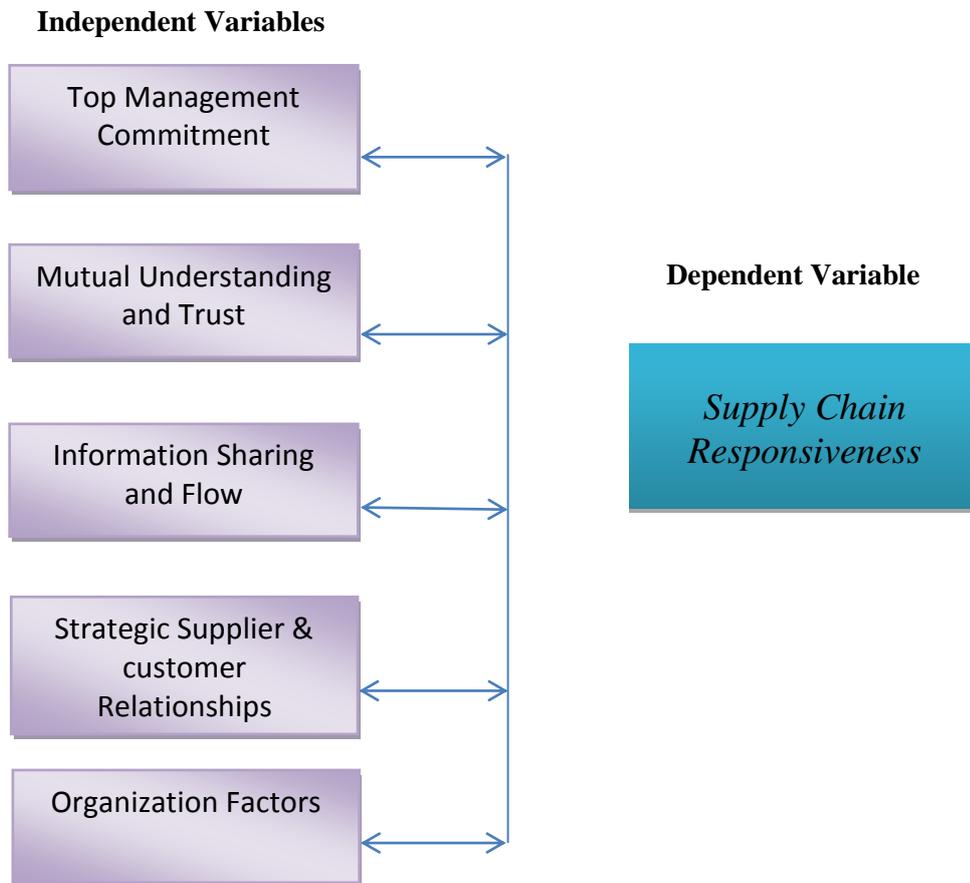
Figure (1.1): the supply chain responsiveness and the five factors

1.5 Definitions of Terms:

Supply chain responsiveness "SCR": Supply chain responsiveness considered as the agility and speed the organization uses to respond to customer input. A conflict of interest of the organization's members can affect the profitability of the supply chain. Conflicts at any level of the supply chain may lead to individual profits in the short term, but are to the detriment overall the supply chain A long-term orientation with a combination of suppleness and rapidity in supply chain will create responsiveness and prompt delivery, reduced cost and accurately forecast data (Michelin et al., 2008). Responsive supply chain ensures delivery in time, cost reduction and accurate forecasting of data (Mehrjerdi, 2009).

Top management commitment "TMC": The commitment at the top level management is very important to make supply chain responsive because their decision and strategies put effect on whole supply chain. If they are not committed the overall coordination in supply chain cannot achieved. Decisions related to resources and IT is also taken by Top Management (Rajesh & Singh, 2011).

Mutual Understanding and Trust "MUT": The trust between firms takes a key part in strategy formulation. It is a thing by which the cost of SC can be reduced. Actually it is mutual confidence that describes that no party exploit believes of other party. Trust present when one supply chain factor as confidence on other SC factor (Enderson & Narus 1990). Trust and supply chain member's commitment is very vital for increasing the performance of supply chain in the countries that are developing (Bianchi & Saleh, 2010)

Information sharing and flow (ISF): Sharing information is important for making supply chain responsive because inventory management is main area of focus in supply chain. Finding coordination in inventory management is very difficult because all companies are competing against each other or they are independent. These companies do not share their personal and secret data and other third party have to find their inventory policies. For a responsive supply chain point of sales data should be available (Stanley et al 2009)

Strategic Supplier & customer Relationship "SSP": This is a long-term relationship (partnership) between the organization and supplier that produce advantages for both parties. The benefits of these relationships may transcend the short-term cost-benefit analysis and focus on areas such as, research and development programs, coordination of operations, mutual marketplace positioning (Mehrjerdi, 2009). Customer Relationship is the effectiveness, ability and focus on satisfying the customer in the short-term and long-term. It is not just dealing with customer's complaints, but building long and lasting relationships on which SCM benefits as does the whole organization (JrJung et al,2010)

Organization Factors "OF": Different organizational factors like organization structure, organizational culture, training of employees. Some companies are working on JIT system in which raw material is provided at the time of production. Some others are working on the concept of mass customization; Dell Computer Corporation is one of them, which requires one original part manufacturer (Hayat 2012).

Other organizational factors affecting coordination of supply chain may be lean organization structure organization culture, cross-functional training of employees (Trish, 2005)

1.6 Hypotheses:

Researcher proposes the following hypotheses:

1.3.1 The first Hypothesis: The External Factors affects the supply chain responsiveness. This hypothesis includes the following sub-hypotheses:

Hypothesis 1: Top Management affects significantly positively supply chain responsiveness.

Hypothesis 2: Mutual Understanding and Trust affects significantly positively supply chain responsiveness

Hypothesis 3: Information Sharing and Flow affects significantly positively supply chain responsiveness

Hypothesis 4: Strategic Supplier and customer Relationships affects significantly positively supply chain responsiveness

Hypothesis 5: Organization Factors affects significantly positively supply chain responsiveness

1.3.2. The Second hypothesis: There is significant difference among respondent toward external factors affect the supply chain due to personal traits "gender, age, qualification, occupation type, occupation and experience''.

1.7 Research Significance:

Supply chain management is a tool that can be used to enhance a business process to its most efficient and effective end. The flow of material from supplier to the customer through the distribution channels and other processes cover the scope of Supply Chain Management. The researcher will show how UNRWA Gaza implements supply chain responsiveness and external factors that affect and assist in establishing and upgrading a coordinated and responsive supply chain at UNRWA Gaza. This will facilitate the relationship with UNRWA's customers and how to best manage the relation effectively & efficiently. The researcher was a part of procurement and Logistics Department and this research will improve the researcher career and raise the recommendation to the management and discuss the implementation mechanism. It will summarizes existing research by identifying patterns, themes, issues and effective use of resources and technology to improve SC capabilities to meet market changes and helps to generate ideas for research.

1.8 Limitations:

This research was implemented only on UNRWA Gaza field and the other fields were not considered, such as Syria, Jordan, Lebanon and West bank; this was one of the reasons why the population size was small; the researcher could not get more respondents for this research from the five fields of UNRWA. In addition this study focused on the external factors only and did not include the internal factors affecting the supply chain responsiveness. The examination of these limitations will assist future researchers to work around them.

1.9 Research Structure:

This research consists of five chapters, they include the following:

This chapter includes introduction, identifying the problem statement and problem questions, research objectives, the hypothesis, conceptual framework, definition of terms, significance and limitation of the study.

The second chapter of the research included a summary of the comprehensive literature review, and previous studies.

The third chapter provides a description of the methodology that employed for this research. This research uses the questionnaire. All items are measures at five point Likert scales that have 5 options ranging from 'strongly disagree to' to 'strongly agree'.

The fourth chapter of the research focused on distributing questionnaire. This questionnaire was used to collect the required data in order to achieve the research objective.

The fifth chapter includes the conclusions, recommendations and the future studies.

Chapter 2
Literature Review and
Previous Studies

2.1 Introductions:

In an efficient supply chain, suppliers, manufacturers and retailers manage their activities in order to meet predictable demand at the lowest cost. A responsive supply chain, in contrast, requires an information flow and policies from the market place to supply chain members in order to hedge inventory and available production capacity against uncertain demand Improving responsiveness in a supply chain, however, incurs costs for two primary reasons: firstly excess buffer capacity and inventories need to be maintained; secondly investments to reduce lead times need to be made. If, as an example, end-user demand is subject to sudden, unpredictable variations, it is not sensible to implement lean manufacturing at the interface with the end-user. In general, the cost resulting from investments in responsiveness needs to be compared to the opportunity cost of lost sales resulting from stakeouts (Marshall, 2003)

2.2 Literature Review:

Supply chain is very important at all the organizations especially for the humanitarian ones. As with the term SC, SCM has also been defined by many authors; at first, the focus of SCM was on how to make central elements within a company's SC more efficient. The focus then shifted from efficiency within a single company's SC to the effectiveness of the entire SC, which includes a company's suppliers, customers, and partners. Today's competitive market is composed of interwoven organisations rather than single, independent businesses. It is no longer sufficient for companies to compete independently or individually: they now need to compete as an interacting web of SC partners and to measure the performance of the SC as a whole (Weihua et al,2014)

Responsive supply chains aim to avoid such stakeouts and therefore prioritise the ability to react to changing customer requirements. Providing the right degree of responsiveness and having an efficient supply chain at the same time is a goal that is hard to achieve and that typically involves trade-off decisions by management, since increased responsiveness can be perceived to come at the expense of reduced efficiency, and vice versa. However, there may be strategies, such as revised planning approaches, that restructure supply chain processes to achieve both goals at the same time and enable a supply chain to be responsive and efficient simultaneously (Alicke, 2003)

Supply chain management definitions: there are many different definitions of SC. Chen and Gong (2013) define it as "a set of facilities, suppliers, customers, products and methods of controlling inventory, purchasing and distribution"; they also state that it links suppliers and customers in all processes involved to transform raw materials into the finished products. The definition for SC focuses on the different role-players within the SC: suppliers, manufacturers, distributors, retailers, and customers. A number of authors have defined supply chains as Erturgut et al (2011) "the network of organisations that are involved through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate customer".

The term SCM, in general, has been defined as a set of approaches used to manage the SC. Another, more specific definition, Stock et al (2010) state that more than three quarters of SCM definitions focus on the components within SCM, which can include purchasing, transportation, materials handling, inventory control, manufacturing, and distribution.

2.2.1 Supply Chain Responsiveness

Matthias (2005) defined the SCR as the "ability to react purposefully and within an appropriate time-scale to customer demand or changes in the marketplace, to bring about or maintain competitive advantage"

The SCR is the agility and speed the organization uses to react to customer input. The quickness and flexibility of the supply chain is important. A conflict of the goal and vision between members of the organization can affect the profitability of the supply chain. Conflicts at any level of the supply chain may lead to individual profits in the short term, but are to the detriment of the whole supply chain. A long-term orientation with a combination of suppleness and rapidity in the supply chain will create responsiveness and prompt delivery, reduced cost and accurately forecast data.

Supply chain responsiveness is defined as the capability of promptness and the degree to which a supply chain can address changes in customer demand (Matthias, 2005; Prater et al., 2001; Lummus et al., 2003; Duclos et al., 2003). This responsiveness is aggregate of the operations system, logistics process, and supplier network responsiveness. In a rapidly changing competitive world, there is a need to develop organizations and supply chains that are significantly more flexible and responsive than existing ones. Although it would be interesting to study supply chain responsiveness from the supply disruption perspective, the current study focuses on customer demand perspective (Prater et al,2001)

SCR is maintaining it as the levels of speed and flexibility in a supply chain increase, the level of supply chain responsiveness increases. Thus, a responsive system is also flexible (Swafford et al., 2006)

2.2.2 External factors:

(A) **Top management commitment**

The commitment at the top level management is very important to make supply chain responsive because their decision and strategies put effect on whole supply chain. If they are not committed the overall coordination in supply chain cannot achieved. Decisions related to resources and IT is also taken by Top Management. Culture of organization and training of employees and lean production are some organizational factors that affect coordination. Trust, mutual understanding, risk and reward sharing also effect coordination are Supply chain. Lack of collaborative decision making also put effect on coordination (Rajesh & Singh, 2015).

Ganesan and Saumen (2005), top management support is essential for cross-functional training, integration of departments within the organization and vendor development for a responsive supply chain. Top management commitment is a key enabler for effective SCM (Sandberg and Abrahamsson, 2010). Top management plays key role in developing supply chain strategies. Success of the supply chain depends on the effectiveness of strategies (Sun et al., 2009). Different resources like money, time, technology, manpower, and material are used by the supply chain (Shin et al., 2000). Use of information technology such as internet, intranet, software applications packages and discussion support system can be applied to facilitate the information flow with in the supply chain members (Stanley et al., 2009).

The support from top management is necessary for coordination of different department within an organization for training of employees; development of suppliers (Genesan &Saumen 2005) commitment from top management is a key for responsive supply chain. Strategies for material, technology, time, money, and power; also imposed by top level authority (Shin et al., 2000). Top level management commitment also gives facilities of software applications, intranet and internet and other support systems. They also play a vital role in supply chain strategy formulation, because effective strategies make supply chain successful (Stanley et al., 2009)

(B) **Mutual understanding and Trust**

Trust is a favourable attitude that exists when one supply chain member has confidence in other supply chain member (Anderson and Narus, 1990). Trust is required for flow of information in the supply chain. Risk and reward sharing influence individual supply chain member's behaviour and his interaction with other supply chain members. Conflicts of interest are likely to occur when existing risk and reward sharing maximize individuals benefit in spite of the benefit of all the supply chain members (Cachon and Lariviere, 2005). Trust and commitment are essential for enhancing performance of supply chain in developing countries (Bianchi and Saleh, 2010). Conflicts in vision and goals of supply chain members result in the individuals profit maximization in place of profit maximization of all the supply chain members (Arshinder et al., 2007).

(C) **Information Sharing and Flow**

Thatte (2013) defined "the extent to which critical and proprietary information is communicated to one's supply chain partner" (Li et al., 2006~~, p. 110~~). It refers to the access to private data between trading partners that enables them to monitor the progress of products and orders as they pass through various processes in the supply chain (Simatupang and Sridharan, 2002). Shared information can vary from strategic to tactical in nature and could pertain to logistics, customer orders, forecasts, schedules, markets, or more (Mentzer et al., 2000). Some of the elements that comprise information sharing include: data acquisition, processing, storage, presentation, retrieval, and broadcasting of demand and forecast data, inventory status and locations, order status, cost-related data, and performance status (Simatupang and Sridharan, 2005). Information sharing pertaining key performance metrics and process data, improves supply chain visibility, enabling effective decision making by firms. Information shared in a supply chain is of use only if it is relevant, accurate, timely, and reliable (Simatupang and Sridharan, 2005). The bullwhip effect can be minimized or eliminated by sharing information with trading partners (Yu et al., 2001). Through information sharing, the demand information flows upstream from the point of sale, while product availability information flows downstream (Lee and Whang, 2001; Yu et al., 2001) in a systematic manner. Moreover, information sharing ensures that the right information is available for the right trading partner in the right place and at the right time (Liu and Kumar, 2003). Information sharing with trading partners enables better decisions making by organizations, on the basis of greater visibility making firms and supply chains competitive.

Availability of point of sales data is important for a responsive supply chain (Michelino et al., 2008). Cost minimization is the main objective of a supply chain. An appropriate inventory management system at every node of the supply chain minimizes the inventory at supply chain nodes (Marek and Malyszek, 2008). Supply chain inventory management is one of the focal areas of SCM. Coordinating the inventory systems in a supply chain, however, can be challenging because the companies constituting the supply chain are often independent from each other and sometimes even compete against each other. As such, the participants in the supply

chain can be reluctant to freely share private cost information, and to let a third party dictate their inventory policies. Information sharing between the supply chain members is essential for a responsive supply chain (Stanley et al., 2009). Information sharing may be of sharing of the inventory data, demand data and product quality data. The traditional communication between the manufacturer and the retailer is made through periodic ordering in large batches. This ordering behaviour distorts original demand information because demand variance becomes larger (Ozer, 2003).

(D) Strategic Supplier & Customer Relationships:

Thatte (2013) defined Strategic supplier partnership (SSP) as "the long term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual, participating organizations to help them achieve significant ongoing benefits" (Li et al., 2006, p. 109).

In the past two decades there has been a growing trend in long term collaborative relationships by organizations with a few trusted suppliers, instead of the traditional approach of a onetime cost based supplier relationship (Anderson et al., 1994; Wilkinson and Young, 1995; Ford, 1990; Sheth, 1996; Sheth and Sharma, 1997; Kalwani and Narayandas, 1995; Dwyer et al., 1987; Spekman, 1988). Some of the key advantages of long term relationships with suppliers identified in prior literature include: shared benefits and ongoing collaboration in key strategic areas like technology, products, and markets (Yoshino and Rangan, 1995), cost effective design alternatives, selection of better components and technologies, improved design assessment (Tan et al., 2002), enhanced coordination in operations, R & D, and product launching between partners (Fulconis and Paché, 2005; Burt and Soukup, 1985; Clark and Fujimoto, 1991; Helper, 1991; Hakansson and Eriksson, 1993; Lamming, 1993; Hines, 1994; Ragatz et al., 1997; Dowlatshahi, 1998; 2000; Swink, 1999; Shin et al., 2000), stronger competitive position in the marketplace through mutual co-operation (Porter, 1980), effective management of supply, manufacturing, logistics, and supply chain (Mentzer et al., 2001; Tyndall et al., 1998; Boddy et al., 2000; Ellram and Cooper, 1990), creation of competitive advantage (Sheth and Sharma, 1997; Ballou et al., 2000).

Mettler (2009) defined the Supplier relationship management**:** is the systematic, enterprise-wide assessment of suppliers' assets and capabilities with respect to overall business strategy, determination of what activities to engage in with different suppliers, and planning and execution of all interactions with suppliers, in a coordinated fashion across the relationship life cycle, to maximize the value realized through those interactions. The focus of SRM is to develop two-way, mutually beneficial relationships with strategic supply partners to deliver greater levels of innovation and competitive advantage than could be achieved by operating independently or through a traditional, transactional purchasing arrangement.

Supplier relationship management (SRM) is the discipline of strategically planning for, and managing, all interactions with third party organizations that supply goods and/or services to an organization in order to maximize the value of those interactions. In practice, SRM entails creating closer, more collaborative relationships with key suppliers in order to uncover and realize new value and reduce risk of failure.

Customer relationship (CR): CR is defined as "the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction" (Li et al., 2006, p. 109). Customer relationship is considered as an important component of SCM practices (Noble, 1997; Tan et al.,1998; Croxton et al., 2001). Literature highlights several benefits of customer relationships: success of an organization in SCM efforts as well as its performance (Scott and Westbrook, 1991; Ellram, 1991; Turner, 1993; Moberg et al., 2002), increased sales and profits (Bommer et al., 2001), product differentiation from competitors, sustaining customer loyalty, and greater value provided to customers (Magretta, 1998).

Customer relationship management is a complementary process to the previous operations process to achieve the organization goals, so that efforts will be fruitful if all previous processes were coroneted of running a sound relationship with the customer. (Ellen, 2009) declared that the 55 customer relationship is an essential

part of modern business management. And it concerns the relationship between the organization and its customers.

(E) **Organizational factors**

Different organizational factors like organization structure, organizational culture, training of employees. Some companies are working on JIT system in which raw material is provided at the time of production. Some others are working on the concept of mass customization. Many automotive companies operate on a JIT system in which parts suppliers deliver parts several times a day to the assembly line. Furthermore, some are applying mass customization based on framework that is similar to those adopted by firms such as Dell Computer Corporation. In some industries, mass customization requires a supplier to provide an original equipment manufacturer with a wide range of variants of a given part. Other organizational factors affecting coordination of supply chain may be lean organization structure (Melton, 2005), organization culture, cross-functional training of employees (Ganesan and Saumen, 2005).

2.2.3 Internal factors

(A) Operations system responsiveness (OSR):

OSR is defined as the ability of a firm's manufacturing system to address changes in customer demand (Thatte et al., 2012). OSR includes both manufacturing and service operations. It would also include the ability to rapidly configure or reconfigure assets and operations of a manufacturing system to cope with consumer trends (Wu, 2001; Lummus et al., 2003), respond rapidly to changes in product volume, and effectively expedite emergency customer orders. As a supply chain responds to customer demand, the constituent organizations may be required to move quickly from producing one product to another, or quickly change production levels for a given product. From a manufacturing standpoint, the responsiveness of an operations system would be an ability of the manufacturing or production function to respond rapidly to unexpected events, and an ability to swiftly accommodate special or non-routine customer requests. Operations responsiveness at each node in a supply chain is an integral component of SCR, since each entity in a supply chain is required

to deliver the product or service in a timely and reliable manner, to satisfy customer demand (Duclos et al., 2003; Lummus et al., 2003).

The items under this category measure the responsiveness associated with a specific node or firm in a supply chain (Duclos et al., 2003; Lummus et al., 2003). This firm could be a supplier, manufacturer, or customer, or distributor. Anderson and Lee (2000) identify operations responsiveness as a valuable component of a successful supply chain strategy. Flexibility and speed of response are essential ingredients of a firm's manufacturing system (Holweg 2005; Holweg and Pil, 2001; Meehan and Dawson, 2002; Williamson, 1991). Measures used to operationalize the OSR construct are: operations system's ability to – respond rapidly to changes in product volume demanded by customers, effectively expedite emergency customer orders, rapidly reconfigure equipment to address demand changes, rapidly reallocate people to address demand changes, and rapidly adjust capacity to address demand changes.

(B) Logistics process responsiveness (LPR):

LPR is defined as the ability of a firm's outbound transportation, distribution, and warehousing system to address changes in customer demand. Logistics and distribution management includes the activities of transportation of goods from suppliers to manufacturer to distribution centers to final points of consumption (Ricker and Kalakota, 1999; Duclos et al., 2003; Lummus et al., 2003). These activities include warehousing, packaging and shipping, transportation planning and management, inventory management, reverse logistics, and order tracking and delivery. This study focuses on the outbound logistics of the focal firm. Fuller et al. (1993) suggest that a firm's logistics system is instrumental in creating value for its customers. This value creation implies ensuring logistics flexibility (Duclos et al., 2003; Lummus et al., 2003) and speed within the supply chain to serve each distinct customer's needs. A typical response to uncertainty is to build flexibility into the supply chain (Simchi-Levi et al., 2008). Organizations can minimize risk and stay competitive (Simchi-Levi et al., 2008) if flexibility can be supplemented by an increased velocity of sensing and responding. This responsiveness in the logistic processes is a vital component in the success of a responsive supply chain strategy (Fawcett, 1992).

(C) Supplier network responsiveness (SNR):

SNR is defined as the ability of a firm's major suppliers to address changes in the firm's demand. A key to responsiveness is the presence of responsive partners upstream and downstream of the focal firm (Christopher and Peck, 2004). Reichhart and Holweg (2007) argue that suppliers' manufacturing systems' responsiveness can be treated as the supply chain's responsiveness. The ability of a firm to react quickly to customer demand is much dependent on the reaction time of its suppliers to address the firm's demand. Thus, responsive firms should be able to select suppliers who can add new products and make desired changes, quickly.

Supply chains should be capable and ready to address ripple effects caused by new technologies, terrorist threats (Walker, 2005) or increased competition. Slack (1991) argues that supplier networks are the essential building blocks of a flexible system. Some interviews with operations managers conducted at the European vehicle assembly plants of Volvo revealed that the lack of supplier network flexibility hampered the company's responsiveness (Holweg, 2005). Supplier network flexibility (Slack, 1991) and thus supplier network responsiveness is an important part of supply chain responsiveness. Holweg and Pil (2001) argue that flexibility in the supplier network is an important ingredient of being responsive to changes in customer demand it is well known that responsive suppliers are a vital resource of a firm when design (McGinnis and Vallopra, 1999; Burt and Soukup, 1985) and manufacturing of outsourced products are involved. Fisher et al. (2000) found that for short lifecycle products, such as fashion apparel, retailers are most successful if they can work with suppliers who can provide initial shipments of products based on forecasts, but then rapidly increase production to the right style, colour, size, etc. based on actual sales. They note that fast supply chains can produce products as they sell rather than worrying about accurate forecasts.

These studies suggest that supplier selection based on product development capabilities and rapid deployment capabilities, positively impact delivery time for new products. Choi and Hartley (1996) found that the capability of suppliers to make product volume changes to be a significant factor in supplier selection in the automotive industry. In the electronics industry, for example, demand volatility poses a unique challenge to suppliers to vary output in line with demand. The increases or

decreases in demand may come at a short notice and may need to be sustained over some time period. Some of the measures of supplier network responsiveness identified in this study are: major suppliers' ability to - change product volume in a relatively short time, change product mix in a relatively short time, consistently accommodate the customer-firm's requests, provide quick inbound logistics to its customer-firms, have excellent on-time delivery record, and effectively expedite emergency orders.

2.2.4. United Nations Relief and Works Agency UNRWA Gaza (UNRWA Portal website)

UNRWA begins operations in May 1950 to carter for more than 700,000 Palestine refuges who have lost both home and means of livelihood as a result of the 1984 conflict. for more than 4.6 million Palestine refuges in Jordan, Syria, Lebanon, West bank and Gaza Strip, UNRWA considered as the main provider of basic services that encompass education, health care, relief, camp infrastructure and improvement, community support, microfinance and emergency response including in times of armed conflict. In the absence of a solution to the Palestine refugee problem, the general assembly has repeatedly renewed UNRWA's mandate.

In addition to continuing the massive relief operations initiated by its predecessors, the new agency makes a start with the development of the large-scale public work schemes envisaged by the economic survey mission. Mainly due to resistance on the part of hosts and refugees, the ambitious works programme never gets off the ground, with some minor expectations. The 1976 Arab-Israel war breaks out causing the displacement of tens of thousands of refugees from the west bank and Gaza into neighbouring Arab states. UNRWA begins and emergency aid programme.

The west Bank becomes the fifth" filed headed by the filed office in Jerusalem (previously the west bank area office of the Jordan Field). The occupation weakness and already stagnant economy in the Gaza strip.

The Agency's USD 52million emergency relief programme assists 177,000 refugees including some 7,000 non-registered refugees. Lacking adequate resources,

the general distribution of rations by UNRWA is discontinued in all fields except Lebanon. Instead, the special hardship Case programme is set up to provide food, small cash grants and other assistance to the neediest refugees.

UNRWA responds to outbreak of first Intifada by launch of emergency programme in the occupied Palestinian territory (Opt), including for the first time a structured protection effort through the refugee Affairs Officer programme.

In addition to the emergency programme (also in Lebanon), it also launches an Expanded Programme of Assistance in the operation to deal with the longer-time socio-economic consequences of the 1st Intifada and Israeli counter-measures, introducing amongst other thing the Shelter Rehabilitation Programme. The crisis in the Gulf results in over 300,000 Palestinians leaving Kuwait, mainly to Jordan. UNRWA joins other international agencies in providing aid to the refugees.

2.2.5 Procurement and Logistics Department:

Procurement and Logistics Office at UNRWA (PLD): is a support unit that serve programs, projects to achieve objectives in serving refugees, responsible for procurement, distribution and provision of high-standard food, goods and services required to support eligible refugees in all of UNRWA's areas of operation. PLD striving to achieve best value for the money which UNRWA receives from its donors, in support of these goals, the procurement process is transparent, fair and in line with general UN procurement practices. PLD has 820 staff members most of them are on 25 senior staff, department head and deputies and 20 officers. 5 senior staff including departments head, deputies and senior staff from other departments' Legal office, communication, safety and security, relief and social services program.

2.3 Previous Studies:

In this chapter a brief description of many previous studies listed below. These studies were summarized which made it easy to have an idea of what other researcher focused on, the findings and their recommendation for these studies. These studies will be divided to local and foreign studies.

1. Abdullah (2011) "Evaluating the Supply Chain Management System of Palestinian companies"

The main aim of the study is to develop a generic framework for Palestinian companies. The framework can be applicable in the research environment and the special conditions of Palestine in order to align the strategic fit area between supply chain strategy and the competitive advantage. The current practices of the Palestinian companies suffer from many problems and difficulties from supply chain perspective. Quantitative and qualitative research methodology was used in this study. The quantitative research data was gathered with the aid of online survey.

Seventy five surveys have been sent to six sectors of manufacturing industrials companies in Palestine, Plastic industry, Marble and stone industry, Foodstuff industry, Pharmaceutical industry, Chemical industry, Engineering and metal industry, forty responses were received. The response rate was (53.3%) percent. The results of the interviews and survey revealed a high level of weaknesses in the four key themes were studied and analyzed through the survey results, supply chain management concept and its impact on the success of the firm, competitive and supply chain strategies, supplier relations, and customer relation A Generic framework for the supply chain management was proposed. It aims were to guide the company to structure a successful supply chain, and does not assume any particular solution.

As a knowledge of researcher I couldn't find local studies talked about the supply chain responsiveness and the external factors affecting it; as its quite new and they don't pay more attention for the importance of supply chain and due to many factors which include political unrest, economic oppression and down fall, social incompatibility, and geopolitical instability. The companies and organizations are facing internal and external challenges, within the nature of the environment in which the companies live multivariate, complex, and interrelated so don't pay enough attention to the supply chain; but its wrong attitude as the effective supply chain management has become a key driver for enhancing the competitive advantage and improving organizational performance. However, there is an urgent need to assess the performance of the overall supply chain.

2. Teller (2016), "The Importance of Key Supplier Relationship Management in Supply Chains"

The main aim of the study is to Purpose: This paper investigates the impact of key supplier relationship management (KSRM) – understood as an aggregated supply chain management (SCM) process in the upstream direction – on the overall level of the execution of SCM within organizations. The main contribution of this paper is to empirically demonstrate the potential of KSRM for enhancing the level of SCM execution within organizations and consequently the level of integration in supply chains, leading to higher customer and shareholder value.

Methodology: a conceptual model is developed from a theoretical framework and proposes the capability to do KSRM as a mediator between internal and external SCM resources and SCM execution. A survey of 174 managers representing different supply chain stages is used to test the model through variance-based structural equation modelling. The survey was then sent by mail to the selected respondents representing the 200 selected organizations. After several extensive waves of reminding and motivating the identified informants to complete our survey, we ended up with 174 usable questionnaires, making a response rate of 87%.

Findings: The findings reveal that external SCM resources directly affect the capability to do KSRM. Nevertheless, internal resources show a considerable indirect impact through external resources and can thus be considered an indirect determinant. The capability to do KSRM in turn impacts upon the level of SCM execution, measured in terms of the integration of business processes, directly and substantially, as well as mediating the effect between SCM resources and the level of SCM execution.

Limitations: As with all research, there are some limitations in this study. Despite the fact that the context-specific characteristics of the Central European supply chain setting in which our empirical study was embedded can be regarded as typical of those in developed economies, the context does need to be taken into account when interpreting the data. Future studies in other settings – for example, developing countries – could help to confirm our findings. Future research in other

industries, and focusing on smaller organizations than the ones represented by our respondents, might also stimulate more specific results.

3. Saldanha et al (2015) "Implementing supply china technologies in emerging markets: an institutional theory perspective"

The main aim of the study to constitutes a first attempt to figure a model for how early adopter firms adjust Supply Chain technology that is being implemented in the framework of main official pressures at work in developing markets. We explain our category of adjustment with the property of unmet prospects arising from the challenging official senses.

Methodology: the study used a methodical inductive research approach to ease theoretical concept from field data through a process of constant comparative analysis. This approach is appropriate when examining phenomena where little relevant theory exits. This research is guided by Glaser's grounded theory methodology, as this inductive approach theory methodology, has fewer strictures on data coding and constitutes a more direct way to develop theory.

Findings: a research opportunity raise from one of the inherent limitations of the inductive approach used in this study. The framework they have developed and presented has a substantive focus and is intended to provide a basis for developing formal theory about implementation of Supply Chain technology.

4. Carter (2015) "Toward the theory of the supply chain"

The main aim of the study is to place the foundations of the theory of supply chain; they have proposed six initial sites. They realized that in isolation, the individual concept of their conceptualization have performed in the existing literature. However, when combined together, they provide a complete conceptualization of the supply chain and what is and how it behaves.

Methodology: The conceptualization of the supply chain will also lead to future empirical investigation. Here, there are also numerous and ripe avenues for research – both inductive and deductive. These constructs, along with others such as commitment an opportunism, relate to how firms attempt to manage supply chain

while these and many other constructs of a similar vein have been extensively studied over the past two-plus decades. Another rich avenue for future research would be to study the evolution of supply chains. Databases such as Bloomberg and factsheet, might allow this prescription to be methodologically viable. Such investigations would not only help to identify previously unknown supply chain archetypes, but develop and understanding of how such archetypes might change over time. Coupled with additional secondary data sources, we could learn more about how these changes might be impacted by and impact firm performance.

We see at least five avenues for further developing our conceptualization of the supply chain. First, there are numerous research questions which might arise based on our conceptualization of structure- the physical and support supply chain – and the boundary of the supply chain as the visible horizon. Could we conceptualize the portion of the supply chain that lies beyond the visible horizon? Perhaps researchers can help managers to identify and manage critical suppliers that often exist beyond their visible range. Called "nexus suppliers", the strategic value of these suppliers comes from their "network portfolios and resultant scholars in continuing to develop our discipline's own theories of SCM.

Findings: our conceptualization of the supply chain allows for a distinct (relative to a particular product and a focal agent), bounded (by visible horizon, which is subject to attenuation), and thus parsimonious unit of analysis. At the same time this conceptualization allows us to differentiate between the physical and support supply chain, which leads to a more nuanced perspective of the value-adding roles of different nodes with agency and the respective links that exist among them.

5. Slowinski (2015) "Reinventing Supplier Innovation Relationships"

The main aim of the study is to help Reinventing Supplier Innovation Relationships at firms understand how to collaborate more effectively with suppliers to bring innovation to market. The importance of this activity cannot be overemphasized in a technology world that is rapidly evolving. Becoming globally connected (all the way down to the device level), and facing consumers who expect the next big thing on a regular basis. The ROR team's work taps into the learnings

of IRI members and subject matter experts with decades of supplier innovation experience. Each participant in the process described these relationships from the perspective of his or her particular industry and company. The resulting success stories and lessons learned provide strong guidance for other companies seeking to create or strengthen supplier innovation relationships.

Methodology: used at this study; the team began by reviewing the literature as a group. In a series of there conference calls, team members shared finding, brainstormed important areas to explore, and develop a set of guiding questions, to ensure data-collection activities focused on these areas. After some discussion, the team decided that open-ended formats, such as roundtables, workshops and interviews, were the best way to gather data. Another outcome of these discussions was an agreement on the importance of exploring the guiding questions from two functional perspectives (R&D and procurement in customer

Findings: All of these factors can lead to a situation in which commodity products or minor improvements are easily transferred from supplier to customer while innovation follows a more tortuous path.

Limitation: supplier innovation is too rich a source of opportunity to ignore, and firms are accelerating their efforts to explore its possibilities. The IRI research (ROR) project reinventing supplier innovation relationship sought to better understand how customer and supplier firms can navigate the pitfalls and build trust to create innovation and generate new value. The result of this work is a set of "better practices "that can help facilitate supplier-customer relationships.

6. Rajesh (2015) "Developing the framework for coordination in supply chain of SMEs"

The main aim of the study is to identify different factors for responsive SC. This study develops structural relationships between different factors and it will help organizations in taking initiatives for improving responsiveness.

Methodology: based on literature review, total 17 critical factors for the responsive SC have been identified. Some of these factors are process oriented and

some are result oriented. To develop structural relationship among these factors from strategic perspective, interpretive structural modeling (ISM) approach has been applied.

Findings: It is observed that top management commitment, strategy development, resource development, use of technology, risk and reward sharing are major drivers for responsive SC. By managing these enablers, organizations can also benefit in terms of inventory management, lead time reduction and agility.

Limitation: Major limitation is that the relationships developed are subjective and there are chances of biasing. Therefore findings need to be validated with case studies and empirical findings.

7. Singh, (2015) "Modelling of critical factors for responsiveness in supply chain"

The main aim of the study is: to develop structural relationships between different factors and it will help organizations in taking initiatives for improving responsiveness. In globalized economy, product life cycle is reducing continuously, customers' demands are changing fast, and lead time for response is decreasing. In such scenario, ability of firms to quickly respond to changes in their external environment is a primary determinant of firm's performance. This can be only possible when whole of the supply chain (SC) is responsive. For this, firms have to manage internal operations effectively to enable SC, responsive for market requirements. The purpose of this paper is to identify different factors for responsive SC.

Methodology: which used in this study, as based on literature review; total 17 critical factors for the responsive SC have been identified. Some of these factors are process oriented and some are result oriented. To develop structural relationship among these factors from strategic perspective, interpretive structural modeling (ISM) approach has been applied.

Findings: It is observed that top management commitment, strategy development, resource development, use of technology, risk and reward sharing are major drivers for responsive SC. By managing these enablers, organizations can also benefit in terms of inventory management, lead time reduction and agility.

Limitation: ISM has got some limitations. Major limitation is that the relationships developed are subjective and there are chances of biasing. Therefore findings need to be validated with case studies and empirical findings.

8. John et al (2015) "Implementing Supply Chain Technologies in Emerging Markets: An institutional Theory Perspective"

The main aim of the study is to constitutes a first attempt to figure a model for how early adopter firms adjust Supply Chain technology that is being implemented in the framework of main official pressures at work in developing markets. We explain our category of adjustment with the property of unmet prospects arising from the challenging official senses.

Methodology: The study used a methodical inductive research approach to ease theoretical concept from field data through a process of constant comparative analysis. This approach is appropriate when examining phenomena where little relevant theory exits. This research is guided by Glaser's grounded theory methodology, as this inductive approach theory methodology, has fewer strictures on data coding and constitutes a more direct way to develop theory.

Findings: a research opportunity raise from one of the inherent limitations of the inductive approach used in this study. The framework they have developed and presented has a substantive focus and is intended to provide a basis for developing formal theory about implementation of Supply Chain technology.

9. Du Toit (2014) "Supply chain management: A framework of understanding"

The main aim of this study is to provide a simplified view of SCM that can be used to guide future researchers and practitioners to gain an overview or understanding of the field. The study anchors its explanation of SCM with the aid of a newly-proposed framework of understanding that illustrates the different components within SCM as well as the relationships between them. It is derived from definitions of the terms within the field, as well as from previously-defined categorizations of SCM and other disciplines. This study also aims to explain SCM and to develop a framework to assist the explanation of SCM. The proposed

framework therefore has a wide focus that includes the comprehensive scope of SCM, but it also aims to provide a simpler, elementary view of SCM.

The framework has a number of distinctive features that promote its use in research and in practice: it provides a simple graphical representation of SCM, it is easy to use, and it focuses on illustrating the relationship between components in the field. The framework is intended to be used as an explanatory tool and reference guide. The framework and accompanying discussion can aid the explanation of SCM to those new in the field. It also serves as a reference guide to existing practitioners and researchers in the field. In this sense, the framework provides the necessary structure to map SCM-related studies so that users can gain insights into how individual elements of SCM relate to the broader SCM field of study. By dividing SCM into different components, defining the components, and showing the relationships between them, the framework assists users to make sense of a complex phenomenon.

Limitation: to this study that provide opportunities for future research. The proposed framework of understanding is intended to assist the explanation of SCM in general. Therefore, it does not provide an all-encompassing view of SCM or of any one of its components**.**

10. Thatte et al (2013), "Impact Of SCM Practices Of A Firm On Supply Chain Responsiveness And Competitive Advantage Of A Firm"

The main aim of the study is to focus on is the supply chain responsiveness concept and a firm's practices to react to customer's demands and continuously moving market circumstances to create competitive advantage. This study theorized three measurements of supply chain responsiveness and improves a dependable and usable tool for measuring this concept. In addition it tested the relationships between supply chain management (SCM) practices, supply chain responsiveness. A major role of the study is the enlargement of the supply chain responsiveness concept and the validation of the measurement instrument.

Methodology is described for the instrument development and data collection in this section. The instrument development methodology for supply chain

responsiveness includes four stages: item generation, pre-pilot study, pilot study, and large-scale data collection.

Findings: The results of this study have several important suggestions for researchers. First, the study provides suggestions made from a tool that is valid and reliable for the current study's context for evaluating the level of supply chain responsiveness, and tests the construct with an outcome (competitive advantage) of relevance and interest to a firm. Second, the study takes a look at supply chain responsiveness at the firm level, by measuring the degree of a firm's capability on different measurements to report changes in customer demand. Third, this study provided supporting evidences to the theoretical and prescriptive literature about previously untested statements regarding the relationship between SCM practices and supply chain responsiveness. The study provides a research outline that classifies positive and important connections between Supply chain management practices, supply chain responsiveness.

11. Hayat et al (2012) "A study of the Different Factors that affecting the supply chain responsiveness"

The main aim of the study to evaluate the factors that help to build a responsive supply chain in the industries in Pakistan and to show these factors with enhancement can develop the supply chain management of the organizations. Responsiveness is important to enhance performance and combination of different divisions of any organization (Soroor et al 2009). Responsiveness is also including every effort in developing the delivery and production to clients (Lao et al 2008). The processes of responsiveness between different firms can be defined by monitoring the performance, swapping the information and create operative system of communication (Stank et al, 1999). In Supply Chain management different independent actors make efforts for the mutual objective of productivity of supply chain in different market circumstances. The coordination will be real if there is value, advance and pleasure of clients.

32

Methodology: this study included analysis of a questionnaire that involved of statements relating to top level management commitment, mutual understanding, flow of information, organizational factors, relationship and decision making and supply chain responsiveness. SPSS software used to evaluate the findings of this research.

Finding: In the environment of Pakistan, the share of information and top level management commitment can play a significant role to develop a coordinated supply chain as well as other factors. For the purpose of efficient information sharing process, the firms must have to develop their IT means. This argument supported by the Singh et al(2010) that SME,s are facing hurdles due to their scarce resources and are very impressive IT applications. These companies must overcome on these hurdles to get sustainable competitive advantage against their rivals in Pakistan's competitive environment

Limitations: of this study is that it analyses the three manufacturing industries in Faisalabad, Pakistan only. This study will provide a way for future examination of these factors in different situations.

12. Bianchi (2010) "On importer trust and commitment: a comparative study of two developing countries"

The study aimed to examine the relationship trust and commitment is two key dimensions of international exchanges. Both have been extensively investigated from an exporter (as opposed to importer) perspective in developed country (as opposed to developing country) contexts. To address these gaps, this paper aims to develop a model of antecedents and outcomes of importer trust and commitment in two developing countries.

Methodology: The paper tests the proposed model using data from Chile and Bangladesh. Hypotheses are tested using structural equation modelling (SEM).

Findings: SEM analysis reveals that most of the hypotheses are supported in both the Bangladeshi and Chilean context. The findings of this paper also suggest that the effects of importer transaction-specific investments on importer commitment are distinct in the Bangladeshi context.

Implication: Practically, these results show that trust and commitment are essential for enhancing importer relationship performance in developing countries. Importer trust in a foreign supplier is effective when suppliers are competent and provide relatively superior facilities, as opposed to opportunistic proclivity. Importer commitment to a foreign supplier is stronger when importers perceive that the foreign supplier is not opportunistic, but is knowledgeable and experienced with the importer market, and they perceive that it is an advantage importing from that supplier. Cultural similarity between importers and foreign suppliers improves importer trust in both countries. However, importer commitment in Chile increases with importer transaction-specific investment, but this is not found to be the case in Bangladesh.

13. Sandberg (2010) "The role of top management in supply chain management practices"

The study aimed to explore the role of top management in two retail companies that successfully utilise opportunities given by SCM practices.

Methodology: As an empirical basis for the research, two Swedish retail companies are explored. Members of the top management teams have been interviewed about their role in the company and their priorities.

Findings: The top management role is described by introducing four archetypes; the supply chain thinker, the relationship manager, the controller and the organiser for the future.

14. Cao (2008) "How are supply chains coordinated? An empirical observation in textile-apparel businesses "

The study aimed to reveal the empirical issues of the implementation of coordination for textile-apparel supply chains.

Methodology: Employing case study, the paper examines three different types of coordination practice in three different structures of textile-apparel supply chains: vertical integration chain, efficiency oriented chain and 3P-hub chain. The coordinators are three leading Hong Kong based international textiles and apparel

companies in these cases. The case sources are published articles, company web sites and some open seminars offered by the case companies.

Findings: In textile and apparel industries, brand owners generally coordinate the supply chain. There are also other coordination practices in industries. Through the research observations and analyses in the cases it is found that the integrated company, powerful garment manufacturer and trade agent play the role of coordinators in vertical integration chain, efficiency oriented chain and 3P-hub chain, respectively. No matter what type of coordination practice, information sharing and product flow coordination should be comprehensive. Coordinators are the information centres of the whole supply chain. They should have power to manage the supply chain. They should actively integrate the whole chain for maximum total profitability.

Limitation: This paper is just an overview of coordination practice in textile-apparel supply chains. The case sources are published articles, company web sites and some open seminars made by the case companies. The methodology should be more systematic.

15. Othman (2008) "Supply chain management and suppliers' HRM practice"

The main aim of this paper is to examine the impact of supply chain management (SCM) on the HRM practice of suppliers. The paper argues that the performance requirement in an SCM system requires that suppliers develop specific HRM practices. This paper is probably the first attempt to examine how SCM affects the HRM practice of suppliers

Methodology: a structured interview was used to collect the data from seven companies.

Findings: This paper found evidence to suggest that impact of SCM on the HRM practice of local suppliers is related to the extent of linkage the customers develop with their suppliers. The findings of this paper suggest that a successful supplier-customer relationship is dependent on the suppliers developing specific HRM practices that will enable them to fulfil customer's requirements

Limitation: This paper relied on an examination of seven companies. This limits the generalizability of its findings.

16. Fawcett (2009) "Supply chain information-sharing: benchmarking a proven path"

The main aim of this paper is to examine the development and competitive influence of a supply chain (SC) information-sharing capability over time. The paper uses a multi-method, longitudinal methodology to evaluate the evolution of technology and behavioural dimensions of a SC information-sharing capability and to document their influence on firm operating and competitive performance.

Methodology: Survey data were collected in 1999/2000 and 2005/2006. Case study interviews conducted in the same time periods are used to contextualize the survey results.

Findings: The analysis shows that an overall increase in the level of investment in IT in conjunction with higher levels of willingness to share the information is needed to support SC competitiveness. Both connectivity and willingness are shown to contribute to performance improvements. Further, empirical evidence suggests that the greatest performance improvements occur when companies develop both dimensions of an information sharing capability.

17. Zare (2009)" Excellent supply chain management",

The main aim of this paper is to review the fundamental concept of supply chain management (SCM) and discusses the facts that a road to success in the process of design, development, implementation and operation of a supply chain (SC) is the identification of superior strategies and clear objectives. To understand important SC strategies for a complete success, main strategies need to be identified. The literature of SC is filled with a wide range of strategies applied successfully across various enterprises that reviewed briefly in this paper. Because a better management of production system is related to the full understanding of the technologies implemented and the system under consideration, the excellent SCM system

including its three as are discussed and metrics used to measure performance are elaborated

Methodology: The paper provides key strategies of SCM, and discusses the fact that the vision for the excellent SCM can be built on principles as such as speed, quality, cost, flexibility, quality leadership, customer focused, collaboration, and integrated information system**.**

Findings: To make the excellent SCM successful, management must be committed to high standard of performance including competitive lead times to customers, significantly reduced inventories, world-class product quality, and reduced process and product complexity.

18. Minnich (2006) "Supply Chain Responsiveness and Efficiency Complementing or Contradicting Each Other?"

The main aim of this study is Balancing responsiveness to market requirements with overall efficiency is an important issue in supply chain design and management. The objective of the system dynamics model introduced in this paper is to capture generic structures and the intrinsic dynamic behavior modes of supply chains considering aspects of responsiveness and efficiency. The research strives for a better understanding of these aspects: what are the structural consequences of implementing strategies striving for efficiency or responsiveness in the real world, and how can they be represented in a System Dynamics model? Furthermore, simulations will be used to assess the dynamic consequences of these different strategic alternatives. Future research will then focus on identifying policies to balance responsiveness and efficiency in a specific industry and by that resolve the trade-off between the two.

Methodology: A survey of consumer packaged goods companies in 2005 indicates that of the companies that tailor their supply chain approach to the product, those that consider changes in volatility of demand over time for the segmentation of their product portfolio are more successful – 50 percent of the best performing companies in supply chain management 4 used volatility as a segmentation criterion, compared to only 27 percent of the other companies, which use simpler criteria such

as volume. This indicates that many companies do not realise the importance of tailoring the supply chain to the requirements a particular product has during the various stages of its life cycle

Findings: The model adds value for both decision makers in companies as well as researchers focusing on supply chain management. The results of the research will allow decision makers to identify and test policies for an efficiently and responsive supply chain strategy. It will allow them to set up supply chain structures that provide optimal levels of efficiency and responsiveness. Future research will focus on identifying policies to balance responsiveness and efficiency in a specific industry.

Limitation: the behaviour simulated using the supply chain model is in line with expected behaviour and shows the traditionally expected trade-off between responsiveness and efficiency. Nevertheless, a sensible combination of measures taken to increase efficiency can at least reduce the negative impact on responsiveness. Among other aspects, further research intends to find out whether investments to increase efficiency can have a positive impact on responsiveness at the same time. For example, a reduction of inventory levels could be accompanied by measures to reduce manufacturing cycle time as well as alternative planning methods. The model can now be further fine-tuned and also be fed with data to show which supply chain set-up is optimal under different circumstances.

2.4 Comments on previous studies:

From the above mentioned studies we notice that the main gap is that local studies weren't conducted to talk about the supply chain; and most of the foreign studies are recent studies). In addition no studies discussed the external and internal factors affecting the supply chain responsiveness. Most of the studies were talking about the supply chain or supply chain management. Some of these studies examined the supply chain responsiveness in different environments and profit organizations. So UNRWA as non-profit organization was not targeted in any of these studies; so from this point the researcher found that it should focus and have a clear understanding of supply chain responsiveness and its implementation at

UNRWA Gaza and how to assist in providing highest level through presenting the external factors that affect and help to establish and upgrading a coordinated and responsive supply chain at UNRWA Gaza. It will summarizes existing research by identifying patterns, themes and issues and effective use of resources and technology to improve SC capabilities to meet market changes and helps to generate ideas for research. This study has similarities in objectives, tools, variables and findings with some of the previous studies and has differences with these studies at the same time in objectives, variables, findings and field of study. These previous studies gave researcher the inspiration to implement the study on procurement and logistics department at UNRWA Gaza; the organization which researcher is working on and try to check where the weaknesses and strengths in the supply chain process are.

This study distinguishes as it is the first one which examines the supply chain responsiveness in UNRWA and at Gaza in specific. Some of these studies focused on manufacturer companies this study conducted on UNRWA which is a humanitarian organization.

Chapter 3
Research Design and
Methodology

3.1 Introduction:

This chapter describes the methodology that was used in this research. The adopted methodology to accomplish this study uses the following techniques: the information about the research design, research population, questionnaire design, statistical data analysis, content validity and reliability.

3.2 Research Methodology:

The research followed the analytical/descriptive approach in addition to the statistical analysis, in order to collect the needed data for this research. The descriptive analysis method compares, explains, and evaluates in order to generalize meaningful results to enrich knowledge in this regard. This methodology scans past studies to make full use of them when applied, and predicts the outcomes of the study in the coming stage.

3.3 Date Collection Tool:

3.3.1 Secondary Data:

The data was collected here depending on reviewing of published data search, including papers, documents and books and Researches and previous studies journals, statistics and web pages.

3.3.2 Primary Data

The questionnaire survey was chosen as the main tool for primary data collection. The questionnaires were distributed to 50 officers at procurement and logistics department at UNRWA Gaza; in order to get their opinions about the external factors affecting the supply chain responsiveness there.

Figure (3.1) shows the methodology flowchart, which leads to achieve the research objective.
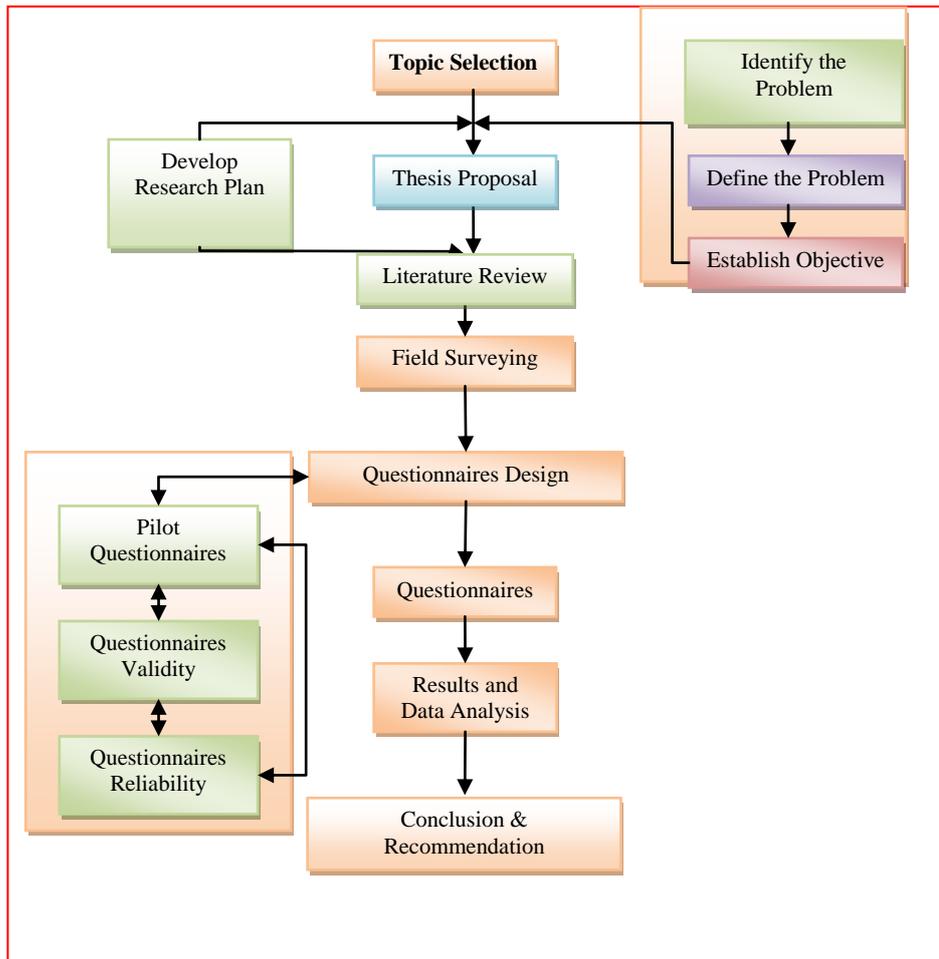
Figure (3.1) illustrates the methodology flow chart.

3.4 Population size:

The population included the officers at UNRWA Gaza at Procurement and Logistics Department who are involved in the supply chain process at UNRWA, such as the department's heads and deputies, logistics officers, procurement officers, warehousing officers and supply control officer, who have a good experience in the supply chain process. The total officers is 70 staff members; this is why a comprehensive survey was used not a sample. The real respondent was 50 only,

because when the researcher distributed the questionnaire it was the stocktaking period at the procurement and logistics warehouses and the officers were often not available at this time.

3.5 Pilot Study

A pilot study of 20 respondents for the questionnaire was conducted before collecting the results of the survey; the total population was 70 and had 50 respondents only and it was part of the total respondent. The pilot study provided a trial run for the questionnaire, which involves testing the wordings of question, identifying ambiguous questions, testing the techniques that used to collect data, and measuring the effectiveness of standard invitation to respondents. The questionnaire was clear for the respondents and could answer easily.

3.6 Instrumentation:

The results are based on self-reporting and self-perceptions of the respondents. It may not be the best measure, but the use of questionnaire as a research method in the behavioural sciences is already acknowledged widely. With careful preparation one can reach a considerable fit between self-assessment and other sources of evaluation such as direct managers, who evaluate performance from the organizational perspective.

The questionnaire was divided into 2 primary sections; in a total, 31 statements for supply chain responsiveness and the external factors have been identified based on literature review. These are further grouped into six categories such as top management commitment, mutual understanding and trust, information sharing and flow, strategic supplier and customer relationship, organizational factors and responsiveness. The measures of the variables which were used in this study were derived from (Hayat et al, 2012).

The first section of the questionnaire was intended to solicit a variety of personal information; age, qualification, occupation type, occupation and years of experience.

The second section was divided into a series of questions in six groups. Each group has the research questions on these topics are operationalized through a series of statements, to which participants responded using a ten point format, grading from "1- strongly disagree" to "5- strongly agree". This section of questionnaire was designed to assess research question: to what extent do the external factors affect the supply chain responsiveness at UNRWA Gaza. .

3.7 Data Measurement

In order to be able to select the appropriate method of analysis, the level of measurement must be understood. For each type of measurement, there is/are an appropriate method/s that can be applied and not others. In this research, ordinal scales were used. Ordinal scale is a ranking or a rating data that normally uses integers in ascending or descending order. The numbers assigned to the important (1, 2, 3, 4, 5) do not indicate that the interval between scales are equal, nor do they indicate absolute quantities. They are merely numerical labels. Based on Likert scale we have the following:

Table (3.1): Likert scale

Item	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
Scale	5	4	3	2	1

The procedure used in analysis of data was aimed at establishing the relative index. Average score obtained for each factor was used to determine the important factors. Since Likert's scale of (5) point was used which would result in the interval from (1) to (5) was distributed into (5) interval, each interval had a length of ((5-1)/5) = 0.8. Therefore for the average (mean) score the intervals were defined as:

Stongly Disagree	1.00 to 1.79
y Disagree	1.80 to 2.59
No Openion	2.60 to 3.39
Agree	3.40 to 4.19
Strongly Agree	4.20 to 5.00

Factors scoring in average of 3.40 or more shall be considered as high importance (Ozen *et al*., 2012).

3.8 Validity of Questionnaire:

Face validity was conducted. The researcher approached two professional Jurors and two academic Jurors and they were only four; as the survey was modelled from previous studies.

Validity refers to the degree to which an instrument measures what it is supposed to be measuring. Validity has a number of different aspects and assessment approaches. Statistical validity is used to evaluate instrument validity, which include internal validity and structure validity.

3.8.1 Internal Validity:

Internal validity of the questionnaire is the first statistical test that used to test the validity of the questionnaire. It is measured by correlation coefficients between each item in one field and the whole field.

Table (3.2) clarifies the correlation coefficient for each item of the "Top Management Commitment" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be said that the items of this field are consistent and valid to be measure what it was set for.

Table (3.2): Correlation coefficient of each item of "Top Management Commitment" and the total of this field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Top management commitment affects positively investment of time and money for resource development.	.906	0.000*
2.	Top management commitment influences the focused communication system.	.845	0.000*
3.	Top management commitment increases the Long term investment intention.	.892	0.000*
4.	Top management commitment encourages strongly commitment to promises.	.808	0.000*
5.	Top management commitment makes you ready to adopt new technology.	.858	0.000*
6.	Top management commitment ensures employees training and empowerment	.842	0.000*

* Correlation is significant at the 0.05 level

Table (3.3) clarifies the correlation coefficient for each item of the "Mutual Understanding and Trust" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be said that the items of this field are consistent and valid to be measure what it was set for.

Table (3.3): Correlation coefficient of each item of "Mutual Understanding and Trust" and the total of this field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Mutual understanding and trust has a positive result on agreed vision and goals of members of supply chain.	.893	0.000*
2.	Mutual understanding and trust has a big influence on the development in supply chain process.	.915	0.000*
3.	Mutual understanding and trust are essential for effective implementation of joint replenishment forecasting decision.	.921	0.000*
4.	Mutual understanding and trust minimize supply chain risks.	.893	0.000*

* Correlation is significant at the 0.05 level

Table (3.4) clarifies the correlation coefficient for each item of the "Information sharing and Flow" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at α = 0.05, so it can be said that the items of this field are consistent and valid to be measure what it was set for.

Table (3.4): Correlation coefficient of each item of "Information Sharing and Flow" and the total of this field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Information sharing and flow facilitate the usage of information technology tools and techniques.	.886	0.000*
2.	Information sharing and flow is important to the tracking at supply chain process linkage.	.927	0.000*
3.	Information sharing and flow enforce the sharing of data related to purchasing and supplies.	.886	0.000*
4.	Information sharing and flow force the implementing of knowledge sharing.	.925	0.000*
5.	Information sharing and flow force the implementation of design data sharing.	.868	0.000*

* Correlation is significant at the 0.05 level

Table (3.5) clarifies the correlation coefficient for each item of the "Strategic Supplier and customer Relationships" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at α = 0.05, so it can be said that the items of this field are consistent and valid to be measure what it was set for.

Table (3.5): Correlation coefficient of each item of "Strategic Supplier and customer Relationships" and the total of this field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Strategic supplier and customer relationships help in developing long term relationship with suppliers.	.897	0.000*
2.	Strategic supplier and customer relationships help in developing long term relationship with customers.	.879	0.000*

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
3.	Strategic supplier and customer relationships influence positively the logistics synchronization.	.868	0.000*
4.	Strategic supplier and customer relationships result in a better supply chain integration.	.864	0.000*
5.	Strategic supplier and customer relationships increase the rationalization of suppliers	.913	0.000*

* Correlation is significant at the 0.05 level

Table (3.6) clarifies the correlation coefficient for each item of the "Organization Factors" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at α = 0.05, so it can be said that the items of this field are consistent and valid to be measure what it was set for.

Table (3.6): Correlation coefficient of each item of "Organization Factors" and the total of this field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Organization factors affecting coordination of supply chain Lean organization structure.	.857	0.000*
2.	Organization factors motivate you to operate Just In Time and lean practices.	.815	0.000*
3.	Organization factors influence positively organization culture for supply chain implementation.	.845	0.000*
4.	Organization factors consider seriously the role of supply chain with respect to other factors.	.793	0.000*
5.	Organization factors affect positively cross-functional training of employees.	.841	0.000*

* Correlation is significant at the 0.05 level

Table (3.7) clarifies the correlation coefficient for each item of the "Supply Chain Responsiveness" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at α = 0.05, so it can

be said that the items of this field are consistent and valid to be measure what it was set for.

Table (3.7): Correlation coefficient of each item of "Supply Chain Responsiveness" and the total of this field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Supply chain responsiveness influences positively Flexibility in Production system.	.872	0.000*
2.	Supply chain Responsiveness ensures delivery on time.	.904	0.000*
3.	Supply chain responsiveness maximizes the degree of service Reliability.	.844	0.000*
4.	Supply chain responsiveness increases the ability to adopt changes.	.838	0.000*
5.	Supply chain responsiveness increases positively the supplier's and the end user satisfaction.	.846	0.000*
6.	Supply chain responsiveness affects positively the interpersonal relations.	.819	0.000*

* Correlation is significant at the 0.05 level

3.8.2 Structure Validity of the Questionnaire:

Structure validity is the second statistical test that used to test the validity of the questionnaire structure by testing the validity of each field and the validity of the whole questionnaire. It measures the correlation coefficient between one field and all the fields of the questionnaire that have the same level of liker scale.

Table (3.7) clarifies the correlation coefficient for each field and the whole questionnaire. The p-values (Sig.) are less than 0.05, so the correlation coefficients of all the fields are significant at $\alpha = 0.05$, so it can be said that the fields are valid to be measured what it was set for to achieve the main aim of the study.

Table (3.7): Correlation coefficient of each field and the whole of questionnaire

No.	Field	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Top Management Commitment	.898	0.000*
2.	Mutual Understanding and Trust	.900	0.000*
3.	Information Sharing and Flow	.937	0.000*
4.	Strategic Supplier and customer Relationships	.849	0.000*
5.	Organization Factors	.862	0.000*
	The external factors	.993	0.000*
	Supply Chain Responsiveness	.890	0.000*

* Correlation is significant at the 0.05 level

3.9 Reliability of the Research

The reliability of an instrument is the degree of consistency which measures the attribute; it is supposed to be measuring (George and Mallery,2006). The less variation an instrument produces in repeated measurements of an attribute, the higher its reliability. Reliability can be equated with the stability, consistency, or dependability of a measuring tool. The test is repeated to the same sample of people on two occasions and then compares the scores obtained by computing a reliability coefficient.

3.10 Cronbach's Coefficient Alpha

Cronbach's alpha is designed as a measure of internal consistency, that is, do all items within the instrument measure the same thing? The normal range of Cronbach's coefficient alpha value between 0.0 and + 1.0, and the higher values reflects a higher degree of internal consistency. The Cronbach's coefficient alpha was calculated for each field of the questionnaire.

Table (3.8) shows the values of Cronbach's Alpha for each field of the questionnaire and the entire questionnaire. For the fields, values of Cronbach's Alpha were in the range from 0.889 and 0.975. This range is considered high; the result ensures the reliability of each field of the questionnaire. Cronbach's Alpha equals 0.980 for the entire questionnaire which indicates an excellent reliability of the entire questionnaire.

Table (3.8): Cronbach's Alpha for each field of the questionnaire

No.	Field	Cronbach's Alpha
1.	Top Management Commitment	0.934
2.	Mutual Understanding and Trust	0.925
3.	Information Sharing and Flow	0.940
4.	Strategic Supplier and customer Relationships	0.930
5.	Organization Factors	0.889
	The external factors	0.975
	Supply Chain Responsiveness	0.925
	All items of the questionnaire	**0.980**

The Thereby, it can be said that the researcher proved that the questionnaire was valid, reliable and ready.

Test of normality:

Table (3.9) shows the results for Kolmogorov-Smirnov test of normality. From Table (3.9), the p-value for each variable is greater than 0.05 level of significance, and then the distributions for these variables are normally distributed. Consequently, parametric tests should be used to perform the statistical data analysis.

Table (3.9): Kolmogorov-Smirnov test

Field	Kolmogorov-Smirnov	
	Statistic	P-value
Top Management Commitment	0.825	0.504
Mutual Understanding and Trust	1.041	0.229
Information Sharing and Flow	0.866	0.441
Strategic Supplier and customer Relationships	0.951	0.326
Organization Factors	0.605	0.857
The external factors	0.868	0.438
Supply Chain Responsiveness	0.720	0.679
All items of the questionnaire	1.048	0.222

3.11 Statistical analysis Tools

The researcher used data analysis both qualitative and quantitative data analysis methods. The Data analysis made utilizing (SPSS 23). The researcher utilizes the following statistical tools:

1) Kolmogorov-Smirnov test of normality.

2) Pearson correlation coefficient for Validity.

3) Cronbach's Alpha for Reliability Statistics.

4) Frequency and Descriptive analysis.

5) Multiple linear regression analysis.

6) Parametric Tests (One-sample T test, Independent Samples T-test and Analysis of Variance (ANOVA)).

3.12 Chapter Summary

The intent of the third chapter was to provide a description of the methodology that was employed for this research.

The research design chosen for this study employed a questionnaire methodology, which is deemed the most convenient and viable method for the required research. Both reliability and validity have been assured through the instrument design and throughout the instrument application. A summary of data analysis and research findings will be provided in chapter four.

Chapter Four

Data Analysis and

Discussion

4.1 Introduction:

This chapter represents the research findings and the statistical analysis of the data collected as part of this study. The purpose of this chapter is to provide a comprehensive overview of the entire data set collected and the characteristics of the respondents. In addition, it serves to describe the statistical procedures applied to the data in order to interpret and apply the data to the research questions.

Table (4.1) shows the percentage for each category of the personal characteristics which represent my sample including the gender, age, qualification, occupation types, titles and years of experience and shows they are qualified to answer my questionnaire.

Fifty officers at UNRWA Gaza took part in the study, 30 (60%) were male and 20 (40%) were female, which is natural according to the differences in numbers between the two genders in workforce. 17 respondents which equal (34%) were less than 40 years which indicates that the majority of participants are young. The qualification of (35, 70%) and large number of the participants 'bachelor'. Large number of respondents regarding the occupation type was local positions (42, 84%). 25 respondents which equal to (50%) occupy an officer posts. 28 which equal (56%) has more than 10 years.

The researcher had chosen the officers which is from level 12 and above at the Procurement and Logistics Department as my population which it has 70 officers and I had 50 respondent and they are aware of the whole process of supply chain process starting from planning, preparation, tracking then the implementation stage which will be done by the junior staff.

Despite the Supply chain considered hard job and mainly for male, it could be noticed that the gender percentage are 60 for male and 40 female which is a very high one comparing to other organizations at Gaza, as the UNRWA have a gender balance initiative as one of the important initiatives they started to imply recently. The staff members at my population are considered young. The staff at my

population is considered young as 34 percentage for the category 30 and less than 40, then 26 percentages from the category 40 and less than 50. 70 percent of the population are a holder of Bachelor degree and 18 percent holding a Master degree. 84 percent are on local positions. The targeted category is officer and I could get 50 percent are officers and 30 percent are officers which is my targeted category. Regarding the experience we found that 56 percent have more than 10 years and 22 between 6-10 years which means that the population has a very good experience and went through different systems and practices and could give and describe the system at UNRWA in a best way. It could be noticed the population are representative; they are qualified, mature and has the ability to deal with the title of the study the supply chain management and able to answer the sections of my questionnaire.

Table (4.1): Personal information   (N=50)

Personal characteristics		Frequency	Percent
Gender	Male	30	60.0
	Female	20	40.0
Age	Less than 30 years	12	24.0
	30 - less than 40 Years	17	34.0
	40 - less than 50 Years	13	26.0
	50 - less than 60 Years	8	16.0
Qualification	Diploma	5	10.0
	Bachelor	35	70.0
	Master	9	18.0
	PhD	1	2.0
Occupation Type	International position	8	16.0
	Local position	42	84.0
Occupation (Job Title)	Director	-	-
	Deputy Director	-	-
	Head of department	9	18.0
	Deputy Head of Department	1	2.0
	Senior Officer	15	30.0
	Officer	25	50.0
Years of Experience	Between 1-3 years	5	10.0
	Between 4-5 years	6	12.0
	Between 6-10 years	11	22.0
	More than 10 years	28	56.0

Analysis for the external factors

1. Top Management Commitment "To what extent do the top management is committed to supply chain at UNRWA Gaza?"

Table (4.2) shows the following results:

The mean of the field "Top Management Commitment" equals 3.65 (72.91%), Test-value = 5.19, and P-value= 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. It can be concluded that the respondents agreed to field of "Top Management Commitment among officers who are working on supply chain through affecting positively investment of time and money for resource development, influences the focused communication system, increases the Long term investment intention, encourages strongly commitment to promises, makes you ready to adopt new technology, ensures employees training and empowerment". The finding and this conclusion consistent with the results found in previous studies conducted by (Rajesh, 2015; Thatte et al, 2013 and Hayat et al,2012) and have positive effects but the parentage was variant from one to another; but all these studies agreed on that a higher level of top management commitment will lead to a higher level of supply chain responsiveness. This disagree with Hayat et al (2012) as the top commitment management has low significant level as compare to other factors under this research paper.

The top management commitment is an essential and critical at UNRWA and any other organization looking for the highest levels of professionalism; the mean percentage 72.91 is a positive one but it's not high, so it should be improved. When the top management become good example for the staff, improvement could happen. For example the official working hours for the staff at UNRWA starts from 0730 till 1500hrs, when the top management shows how much it's committed the staff member will be working hard, won't waste time and will work extra hours voluntary. As a result of this high level of dedication UNRWA will be able to conduct the activities and projects without delay and will be in a better position to spend the fund allocated to these activities as allocated without delay. Management improved the communication system with the staff members and other supply chain parties, by

conducting annual meetings with the staff and have for example pre-bid meetings with suppliers. The top management commitment should explain their intention for long term investments such as hiring a qualified staff, contracting with very good suppliers and if they are adopting a new technology or an organizational structure. When UNRWA decided to replace RAMCO system which are used for Procurement and supply chain with the ERP system; the operational staff who are working on the supply chain process was not selected in the right way as the management depended on the positions not on their actual roles, so these key staff did not have an extensive training at HQ Amman to design and put the requirement from this system to fit UNRWA's needs and to make sure they are familiar with it when it's going to be launched. The management should ask for the operational staff who knows exactly what should be improved for their inputs including their requirements, the advantages and the disadvantages of the old system. This would guarantee that the supply process will be going smoothly without interruption and the top management and staff is working side by side in this new technology. UNRWA should improve and focus on the communication to keep the staff up-to-date with all the new decisions, plans.

Table (4.2): Means and Test values for "Top Management Commitment"

	Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	Top management commitment affects positively investment of time and money for resource development.	3.72	1.16	74.40	4.38	0.000*	2
2.	Top management commitment influences the focused communication system.	3.60	0.98	72.08	4.26	0.000*	4
3.	Top management commitment increases the Long term investment intention.	3.57	0.97	71.49	4.05	0.000*	5
4.	Top management commitment encourages strongly commitment to promises.	3.69	0.96	73.88	5.05	0.000*	3
5.	Top management commitment makes you ready to adopt new technology.	3.53	1.08	70.61	3.43	0.001*	6

	Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
6.	Top management commitment ensures employees training and empowerment	3.78	1.01	75.51	5.40	0.000*	1
	All items of the field	3.65	0.88	72.91	5.19	0.000*	

* The mean is significantly different from 3

2. Mutual Understanding and Trust "To what extent does the mutual understanding and trust do exist in the supply chain at UNRWA Gaza?"

Table (4.3) shows the following results:

The mean of the field "Mutual Understanding and Trust" equals 3.69 (73.70%), Test-value = 5.09, and P-value= 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. It can be concluded that the respondents agreed to field of "Mutual Understanding and Trust among senior staff who are working on supply chain through the positive result on is consistent with vision and goals of members of supply chain, a big influence on the development in Supply Chain process, are essential for effective implementation of joint replenishment forecasting decision and minimize supply chain risks.

The findings and this conclusion agreed with the results found in previous studies conducted by (Teller, 2016; Slowinski,2015 and Rajesh, 2015) and have positive and significant effects but the parentage was variant from one to another; but all these studies agreed on that a higher level of mutual understanding and trust will lead to a higher level of supply chain responsiveness.

UNRWA is continuously trying to build and enhance the understanding and trust, between the supply chain members: suppliers, end users, refugees, staff members. We can notice the difference and the improvements in the process itself, since it has been established. Supply chain risk has been minimized by these improvements. Some of these risks could be a delivery in time, the supply channels,

and the incoterms of the delivery for the supplies. UNRWA started to coordinate its own goods through the crossings to avoid any delay in delivery. This result can be understood when UNRWA gives the required attention to monitor the suppliers' performance so a contracts management unit should be established to control the performance. Specifications for the goods is a very essential and critical part, because if the specifications have been done in the right way, the right goods will be provided, so UNRWA should have regular meetings with the end users to have acquisition plan and give enough time for procurement to start the tendering process without a delay and get the right goods.

UNRWA concentrates on making the supply chain staff involved in the new decisions and the new approaches they are planning to apply. For example changing the incoterms for the goods delivery, as most of the delivery terms is DAP UNRWA Gaza Warehouse, but after the siege this condition was very hard to meet as the suppliers couldn't deliver the goods to the warehouses at Gaza.

Table (4.3): Means and Test values for "Mutual Understanding and Trust"

	Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
	Mutual understanding and trust has a positive result on agreed vision and goals of members of supply chain.	3.72	1.11	74.40	4.60	0.000*	1
2.	Mutual understanding and trust has a big influence on the development in supply chain process.	3.71	1.06	74.29	4.71	0.000*	2
3.	Mutual understanding and trust are essential for effective implementation of joint replenishment forecasting decision.	3.63	0.97	72.65	4.55	0.000*	4
4.	Mutual understanding and trust minimize supply chain risks.	3.71	1.08	74.29	4.63	0.000*	3
	All items of the field	3.69	0.95	73.70	5.09	0.000*	

* The mean is significantly different from 3

3. Information Sharing and Flow "To what extent does the information sharing and flow available in the supply chain at UNRWA Gaza?"

Table (4.4) shows the following results:

The mean of the field "Information Sharing and Flow" equals 3.50 (70.04%), Test-value = 3.72, and P-value= 0.001 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. It can be concluded that the respondents agreed to field of "Information Sharing and Flow among senior staff who are working on supply chain through facilitating the usage of information technology tools and techniques, important to the tracking at supply chain process linkage, enforce the sharing of data related to purchasing and supplies, force the implementing of knowledge sharing, force the implementation of design data sharing.

The finding and this conclusion agreed with the results found in previous studies conducted by (Saldanha et al, 2015 and Hayat et al,2012) and have positive effects but the parentage was variant from one to another; but all these studies is consistent with on that a higher level of information sharing and flow will lead to a higher level of supply chain responsiveness.

UNRWA portal and intranet has been improved in the information sharing. For example, the invitation to bid, now advertised and posted on the UNRWA portal, gives easier access to non-staff members and suppliers in this process. New systems have been developed also like VLS and ERP; which facilitate the tracking of goods or services. Nevertheless, improvement is needed in communication with the end users and the management regarding new systems. The circulars for the staff to pass the information regarding the supply chain in the agency for example are not enough but they should have face to face discussions, get the comments on the systems and have a special team as a focal point to deal with these comments and raise required recommendation and suggestion from the operational staff.

Table (4.4): Means and Test values for "Information Sharing and Flow"

	Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	Information sharing and flow facilitate the usage of information technology tools and techniques.	3.57	1.10	71.43	3.64	0.001*	1
2.	Information sharing and flow is important to the tracking at supply chain process linkage.	3.46	1.11	69.20	2.93	0.005*	5
3.	Information sharing and flow enforce the sharing of data related to purchasing and supplies.	3.54	1.01	70.80	3.76	0.000*	2
4.	Information sharing and flow force the implementing of knowledge sharing.	3.46	1.03	69.20	3.14	0.003*	4
5.	Information sharing and flow force the implementation of	3.50	1.05	70.00	3.35	0.002*	3

Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
design data sharing.						
All items of the field	3.50	0.96	70.04	3.72	0.001*	

* The mean is significantly different from 3

4. Strategic Supplier and customer Relationships "To what extent does the strategic supplier and customer relationships are encouraged in the supply chain at UNRWA Gaza?"

Table (4.5) shows the following results:

The mean of the field "Strategic Supplier and customer Relationships" equals 3.50 (70.04%), Test-value = 4.07, and P-value= 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. It can be concluded that the respondents agreed to field of "Strategic Supplier and customer relationships among senior staff who are working on supply chain through helping in developing long term relationship with suppliers, help in developing long term relationship with customers, influence positively the logistics synchronization, result in a better supply chain integration, relationships increase the rationalization of suppliers.

The findings and this conclusion agreed with the results found in previous studies conducted by (Teller, 2016; Slowinski, 2015; Thatte et al,2013 and Hayat et al, 2012) and have positive effects but the parentage was variant from one to another; but all these studies agreed on–our findings that a higher level of strategic supplier and customer relationship will lead to a higher level of supply chain responsiveness and have a positive effect.

UNRWA started to streamline the process of the delivery of goods and services to the warehouse or to the end user with the long-term agreements. Procurement office conducted a review of common goods purchased regularly by all UNRWA departments and included in the annual acquisition plan. Based on the results, a Long Term Agreement has been found a sound and effective to achieve UNRWA's procurement principles. The long-term agreements build a relationship

which is in the interest of suppliers and the customers to maintain mutual satisfaction. While UNRWA keeps down costs and delay.

UNRWA supply, procurement and ethics manuals are developed to clarify the rules for relationships with the supplier/customer and avoid corruption and misbehaviours. More training and workshops are needed to maintain high standards of ethical behaviour.

Table (4.5): Means and Test values for "Strategic Supplier and customer Relationships"

	Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	Strategic supplier and customer relationships help in developing long term relationship with suppliers.	3.46	1.09	69.20	2.98	0.004*	3
2.	Strategic supplier and customer relationships help in developing long term relationship with customers.	3.42	0.95	68.40	3.13	0.003*	4
3.	Strategic supplier and customer relationships influence positively the logistics synchronization.	3.64	0.94	72.80	4.80	0.000*	1
4.	Strategic supplier and customer relationships result in a better supply chain integration.	3.58	0.97	71.60	4.22	0.000*	2
5.	Strategic supplier and customer relationships increase the rationalization of suppliers	3.42	0.99	68.40	3.00	0.004*	5
	All items of the field	3.50	0.88	70.08	4.07	0.000*	

* The mean is significantly different from 3

5. Organization Factors "To what extent do the organizations factors are clear in the supply chain at UNRWA Gaza?"

Table (4.6) shows the following results:

The mean of the field "Organization Factors" equals 3.46 (69.20%), Test-value = 4.36, and P-value= 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. It can be concluded that the respondents agreed to field of "Organization Factors among senior staff who are working on supply chain through affecting coordination of supply chain Lean organization structure, motivate you to operate Just In Time and lean practices, influence positively Organization culture for SC implementation, consider seriously the role of SC with respect to other factors, affect positively cross-functional training of employees.

The finding and this conclusion agreed with the results found in previous studies conducted by (Thatte, 2015 and Hayat et al, 2012) and have positive effects but the parentage was variant from one to another; but all these studies is consistent with that a higher level of information sharing and flow will lead to a higher level of supply chain responsiveness. This result disagree with Hayat et al (2012) as the organization factors has a high significant level as compare to other factors under this research paper, while in this study it was the lowest level.

Due to the Israeli blockade of Gaza, UNRWA is facing difficulties in the delivery of goods, preventing Just in Time practices from being applied. This creates extra obstacles with UNRWA meeting the deadlines of donor country from which they get their funding. Also, the blockade adds extra challenges in obtaining approval for imported goods.

UNRWA improved its culture; promoting transparency, gender equality, neutrality, safety and security; and combating discrimination. These improvements have fostered a multi-cultural environment that gives the same opportunity to the suppliers from different countries in participating in the supply chain. UNRWA started to encourage cross-functional training of its employees between the five fields.

Table (4.6): Means and Test values for "Organization Factors"

	Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	Organization factors affecting coordination of supply chain Lean organization structure.	3.52	0.91	70.40	4.05	0.000*	2
2.	Organization factors motivate you to operate Just In Time and lean practices.	3.31	0.92	66.12	2.34	0.024*	5
3.	Organization factors influence positively organization culture for supply chain implementation.	3.50	0.84	70.00	4.21	0.000*	3
4.	Organization factors consider seriously the role of supply chain with respect to other factors.	3.38	0.83	67.60	3.24	0.002*	4
5.	Organization factors affect positively cross-functional training of employees.	3.58	0.99	71.60	4.14	0.000*	1
	All items of the field	3.46	0.75	69.20	4.36	0.000*	

* The mean is significantly different from 3

In General "The External Factors ":

Table (4.7) shows the mean of all items equals 3.55 (71.09%), Test-value = 5.00 and P-value =0.000 which is smaller than the level of significance $\alpha = 0.05$. The mean of all items is significantly different from the hypothesized value 3. It can be concluded that that the respondents agreed to field of The External Factors; top management commitment, mutual understanding and trust, information sharing and flow, strategic supplier and customer relationships, organization factors affecting positively supply chain responsiveness. The findings and this conclusion is consistent with the results found in previous studies conducted by, Thatte et al, 2013 and Hayat et al,2012) and have positive effects but the parentage was variant from one to another; but all these studies agreed on that a higher level of information sharing and flow will lead to a higher level of supply chain responsiveness.

The researcher sees that the top management trying to improve its commitment by putting more efforts to secure the required fund for UNRWA to operate normally, which will positively impact the supply chain; to build the required

mutual understanding and trust between the supply chain members; UNRWA also needs to develop and pay more attention to the information sharing, which is a fundamental factor in building the strategic relationships and developing the organization factors to make sure the supply chain responsiveness is guaranteed. Due to the circumstances in Gaza, the organization factors are difficult to adapt just in time procedures, but for other UNRWA fields of operations could contribute in improving these practices.

Table (4.7): Means and Test values for "The External Factors"

Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
Top Management Commitment	3.65	0.88	72.91	5.19	0.000*	2
Mutual Understanding and Trust	3.69	0.95	73.70	5.09	0.000*	1
Information Sharing and Flow	3.50	0.96	70.04	3.72	0.001*	4
Strategic Supplier and customer Relationships	3.50	0.88	70.08	4.07	0.000*	3
Organization Factors	3.46	0.75	69.20	4.36	0.000*	5
All Items of The External Factors	3.55	0.78	71.09	5.00	0.000*	

*The mean is significantly different from 3

Supply Chain Responsiveness

Table (4.8) shows the following results:

The mean of the field "Supply Chain Responsiveness" equals 3.57 (71.43%), Test-value = 4.79, and P-value=0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. It can be concluded that the respondents agreed to field of "Supply Chain Responsiveness, influences positively Flexibility in Production system, ensures delivery on time, maximizes the degree of service Reliability, increases the ability to adopt changes, increases positively the

supplier's and the end user satisfaction and affects positively the interpersonal relations".

The findings and this conclusion agreed with the results found in previous studies conducted by (Teller, 2016; Slowinski,2015;Rajesh, 2015; Saldanha et al, 2015;Thatte et al, 2013 and Hayat et al,2012) and have positive effects but the parentage was variant from one to another; but all these studies is consistent with that a higher level of top management commitment will lead to a higher level of supply chain responsiveness. This particular agree with Hayat et al (2012) as the supply chain responsiveness has low significant level as compare to other factors under this research paper.

The percentage shows that the supply chain responsiveness is not is not strong enough but strongly dependent on other factors. This variable represent desired objective for any organization and is classified as dependent variable. It is clear that as much improvements and efforts UNRWA puts on the external factors, it will get it back in effective supply chain responsiveness. I do agree that supply chain responsiveness is not strong as required, which means that we have a big gap to be bridged. This gap is created by the donors' restrictions and conditions; the Agency's austerity measure; the increase in the numbers of staff and beneficiaries.   The political situation and the blockade make it dramatically difficult to get the required responsiveness, as it affects the delivery time, restricts staff travel to attend training or meetings, negatively impact the end user satisfaction. Therefore, UNRWA should have long term agreements with suppliers, and contracts with good companies for custom clearance to decrease the storage and the demurrage costs; Maintaining good communication channels with the authorities to liaise and coordinate goods and staff movements by creating a new unit for liaison and coordination with local and international staff and have a clear manual and policy for how the duties should be done in a proper way.

Table (4.8): Means and Test values for "Supply Chain Responsiveness"

	Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1	Supply chain responsiveness influences positively Flexibility in Production system.	3.36	1.12	67.20	2.27	0.028*	6
2.	Supply chain Responsiveness ensures delivery on time.	3.59	1.10	71.84	3.77	0.000*	5
3.	Supply chain responsiveness maximizes the degree of service Reliability.	3.64	0.94	72.80	4.80	0.000*	1
4.	Supply chain responsiveness increases the ability to adopt changes.	3.61	0.86	72.24	4.97	0.000*	3
5.	Supply chain responsiveness increases positively the supplier's and the end user satisfaction.	3.64	0.96	72.80	4.70	0.000*	2
6.	Supply chain responsiveness affects positively the interpersonal relations.	3.60	0.95	72.00	4.48	0.000*	4
	All items of the field	3.57	0.84	71.43	4.79	0.000*	

* The mean is significantly different from 3

4.2 Research Hypotheses:

4.2.1 The First Hypothesis: "There is a statistical significant effect at $\alpha \leq 0.05$ for the external factors on Supply Chain Responsiveness"

As shown in the table (4.9), it could be concluded that: there is a strong relationship between the external factors and the supply chain responsiveness, which means that the supply chain responsiveness rate is high as soon as the external factors rate is high; these factors includes top level commitment, mutual understanding and trust, information sharing and flow, strategic supplier and customer relationship and organization factors. This is why UNRWA should make sure that the external factors performance level should be maintained to the highest level all the time.

In addition it could be concluded that there is a significant effect between the external factors and supply chain responsiveness, which does support the first

Hypothesis. It is a must for UNRWA to keep enhancing the supply chain responsiveness through improving the external factors and implement new methods to stay updated in this field.

Table (4.9): Result of multiple linear regression analysis

Variable	B	T	Sig.	R	R-Square	F	Sig.
(Constant)	0.582	1.766	0.084				
Top Management Commitment	0.019	0.133	0.895				
Mutual Understanding and Trust	0.364	2.606	0.012*				
Information Sharing and Flow	0.228	1.379	0.175	.856	0.732	24.070	0.000**
Strategic Supplier and customer Relationships	0.249	2.000	0.037*				
Organization Factors	-0.026	-0.176	0.861				

* The variable is statistically significant at 0.05 level

* * The relationship is statistically significant at 0.05 level

4.2.1.1. Sub-Hypotheses:

1- There is a statistical significant effect at α ≤ 0.05 between Top Management Commitment and Supply Chain Responsiveness.

For the variable "Top Management Commitment ", the t-test = 0.133, the P-value (Sig.) =0.895, which is greater than 0.05, hence this variable is statistically insignificant. Then there is insignificant effect of the variable Top Management Commitment on Supply Chain Responsiveness. Which does not support the Hypothesis 1; there is no significant effect for Top Management Commitment on Supply Chain Responsiveness.

To examine research hypothesis **(H1)**, descriptive statistics were conducted on the participants' responses on to survey items in the external factors of Section 2. Most of the participants tended to mostly agree to the external factors. An overall score for all external factors was created in the table (4.7), which had a mean range of 3.65 with standard deviations 0.88.

Table (4.7), do not show any insignificant effects of top management commitment on supply chain responsiveness; so if we have a higher level of top management commitment this will not lead to a higher level of supply chain responsiveness. It seems that there are some other elements that should be tested and examined. These results disagree with the result found in previous studies conducted by Hayat et al,2012 in which there is a significant effect between the top management commitment and supply chain responsiveness, even though it has a low significant level as compare to other factors under this research but it still significant effect.

2- There is a statistical significant effect at α ≤ 0.05 between Mutual Understanding and Trust and Supply Chain Responsiveness.

For the variable "Mutual Understanding and Trust ", the t-test =2.606, the P-value (Sig.) =0.012, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is significant positive effect of the variable Mutual Understanding and Trust on Supply Chain Responsiveness. Which does support the Hypothesis 2; there is a significant effect for Mutual Understanding and trust on Supply Chain Responsiveness.

To examine research hypothesis, descriptive statistics were conducted on the participants' responses on to survey items in the external factors of Section 2. Most of the participants tended to mostly agree to the external factors. An overall score for all external factors was created in the table (4.7), which had a mean range of 3.69 with standard deviations 0.95.

These results agree with the result found in previous studies conducted by (Ashish et al, 2013 and Cheema et al,2012) as it have a positive and significant effects of mutual understanding and trust on supply chain responsiveness; so if we have a higher level of top management commitment this will lead to a higher level of supply chain responsiveness. In these studies there is a high significant level effect between the mutual understanding and trust and supply chain responsiveness.

3- There is a statistical significant effect at α ≤ 0.05 between Information Sharing and Flow and Supply Chain Responsiveness.

For the variable "Information Sharing and Flow ", the t-test = 1.379, the P-value (Sig.) =0.175, which is greater than 0.05, hence this variable is statistically insignificant. Then there is insignificant effect of the variable Information Sharing and Flow on Supply Chain Responsiveness. Which does not support the Hypothesis 3; there is no significant effect for Information Sharing and Flow on Supply Chain Responsiveness

To examine research hypothesis, descriptive statistics were conducted on the participants' responses on to survey items in the external factors of Section 2. Most of the participants tended to mostly agree to the external factors. An overall score for all external factors was created in the table (4.7), which had a mean range of 3.50 with a standard 0.96.

These results disagree with the result found in previous studies conducted by Cheema et al,2012) as in this study there is a significant effect between the Information sharing and flow and supply chain responsiveness. Information sharing and flow has a positive but insignificant effects on supply chain responsiveness; so if we have a higher level of information sharing and flow this will not lead to a higher level of supply chain responsiveness. It seems that there is other elements should be tested and pay more attention to examine this effect.

4- There is a statistical significant effect at α ≤ 0.05 between Strategic Supplier and customer Relationships and Supply Chain Responsiveness.

For the variable "Strategic Supplier and customer Relationships ", the t-test =2.000, the P-value (Sig.) =0.037, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is significant positive effect of the Strategic Supplier and customer Relationships on Supply Chain Responsiveness. Which does support the Hypothesis 4; there is a significant effect for Strategic Supplier and Customer Relationships on Supply Chain Responsiveness.

To examine research hypothesis, descriptive statistics were conducted on the participants' responses on to survey items in the external factors of Section 2. Most

of the participants tended to mostly agree to the external factors. An overall score for all external factors was created in the table (4.7), which had a mean range of 3.50 with a standard 0.88.

These results agree with the result found in previous studies conducted by (Thatte et al, 2013 and Hayat et al,2012) as it have a positive and significant effects of organization factors on supply chain responsiveness; so if we have a higher level of top management commitment this will not lead to a higher level of supply chain responsiveness. In these studies there is a high significant level effect between the mutual understanding and trust and supply chain responsiveness.

5- There is a statistical significant effect at $\alpha \leq 0.05$ between Organization Factors and Supply Chain Responsiveness.

For the variable "Organization Factors ", the t-test = -0.176, the P-value (Sig.) =0.861, which is greater than 0.05, hence this variable is statistically insignificant. Then there is insignificant effect of the variable Organization Factors on Supply Chain Responsiveness. Which does not support the Hypothesis 5; there is no significant effect for Organization Factors on Supply Chain Responsiveness.

These results disagree with the result found in previous studies conducted by Hayat et al,2012) as in this study there was a significant effect between the organization factors and supply chain responsiveness. In our study the organization factors has a positive but insignificant effects on supply chain responsiveness; so if we have a higher level of organization factors this will not lead to a higher level of supply chain responsiveness. It seems that there is other factors should be tested and pay more attention to examine this effect.

In addition, based on the P-value (Sig.), the most significant independent variable is Mutual Understanding and Trust, then Strategic Supplier and customer Relationships. The Information Sharing and Flow, then Organization Factors and Top Management Commitment are non-significant variables.

The regression equation is:

Supply Chain Responsiveness = 0.582+ 0.019 (Top Management Commitment) + 0.364* (Mutual Understanding and Trust) + 0.228 (Information Sharing and Flow)+ 0.249* (Strategic Supplier and customer Relationships) - 0.026 (Organization Factors)

These results agree with the result found in previous studies conducted by (Teller, 2016; Slowinski,2015;Rajesh, 2015; Saldanha et al, 2015;Thatee et al, 2013 and Hayat et al,2012)

It is clear that the relationship between the external factors ad supply chain responsiveness is 0.732 which means it is high. It's clear that some of these external factors have strong effect on the supply chain responsiveness more than other factors. Regarding the effect from the external factors on Responsiveness is strong. Top Management Commitment, Information Sharing and flow and Organizational factors have strong effect, but UNRWA should put more efforts on the improvements to get the responsiveness to the required level. For example Just in Time practices are not applicable at UNRWA Gaza especially when the siege still affect Gaza and the goods and staff movement still restricted and this is one of the reason why the organization factors don't have significant effect on the responsiveness. So, out of the five variables, three don't have strong effect on the supply chain responsiveness. It implies these factors are highly dependent on each other. Mutual Understanding and Trust and Strategic Supplier and Customer Relationship have strong effects. These variables will help organization to achieve their desired objective.

It is observed that the mutual understanding and trust and strategic supplier and customer relationships are major factors for improving the supply chain responsiveness among these factors. It's clear that the factors related to outside parties has a major effect, for example the supplier and customers care about the supply chain responsiveness more than UNRWA staff; this is because the external parties look to get and increase the profit for their business and don't care about the top management for example. Meanwhile the supply chain staff cares about the top management and mutual understating and trust and information sharing and flow and

these factors give the staff a chance to be motivated and share in the decision making and improvements.

4.2.2. Second Hypothesis:

1   There are statistical significant differences at a significant level 0.05 among the factors affecting the supply chain responsiveness at UNRWA Gaza due to (gender, age, Qualification, Occupation Type, Occupation and Years of Experience).

This hypothesis can be divided into the following sub-hypotheses:

-   There are statistical significant differences at a significant level 0.05 among the external factors affecting the supply chain responsiveness at UNRWA Gaza due to gender.

Table (4.10) shows that the p-value (Sig.) is smaller than the level of significance (= 0.05 for the fields "Top Management Commitment, Mutual Understanding and Trust, Information Sharing and Flow, Organization Factors and the external factors", then there is significant difference among the respondents toward these fields due to gender.

It can be concluded that the personal characteristics' gender has an effect on these fields. For the other fields, the p-value (Sig.) is greater than the level of significance $\alpha = 0.05$, then there is significant difference among the respondents toward these fields due to gender. It can be concluded that the personal characteristics' gender has an effect on the other fields. I didn't get concrete answers regarding the strategic supplier and customer relationships; there is a clear difference between the responses due to gender. This could be justified as most of the senior staff is men and they consider supply chain is masculine jobs as they are tough for female staff to join such a field. In addition, there are some cultural constrains for women to build relations with suppliers/customers.

Table (4.10): Independent Samples T-test of the fields and their p-values for gender

No.	Field	Means		Test Value	Sig.
		Male	**Female**		
1.	Top Management Commitment	3.90	3.26	2.700	0.010*
2.	Mutual Understanding and Trust	3.97	3.26	2.727	0.009*
3.	Information Sharing and Flow	3.77	3.10	2.565	0.014*
4.	Strategic Supplier and customer Relationships	3.65	3.29	1.426	0.160
5.	Organization Factors	3.68	3.13	2.718	0.009*
	the external factors	3.79	3.21	2.709	0.009*
	Supply Chain Responsiveness	3.75	3.30	1.908	0.062
	All items of the questionnaire	3.78	3.23	2.625	0.012*

* The mean difference is significant a 0.05 level

- **There are statistical significant differences at a significant level 0.05 among the external factors affecting the supply chain responsiveness at UNRWA Gaza due to age.**

Table (4.11) shows that the p-value (Sig.) is greater than the level of significance $\alpha = 0.05$ for each field, then there is insignificant difference among the respondents toward each field due to age.

It can be concluded that the personal characteristics' age has no effect on each field. There are no significant differences between the responses due to the age, which means the age does not have any influence on the supply chain responsiveness. Though the samples did not give concrete answers on the survey, it is clear that the categories of less than 30 years and from 40-50 years have the highest responses. For the category of the age less than 30 years they have enthusiasm and capacity to learn things quicker than others. For the category 40-50 years they are mature and have good skills due to the years of experience in this filed and the practices they used to do.

Table (4.11): ANOVA test of the fields and their p-values for age

No.	Field	Means				Test Value	Sig.
		Less than 30 years	30 - less than 40 Years	40 - less than 50 Years	50 - less than 60 Years		
1.	Top Management Commitment	3.96	3.38	3.85	3.40	1.523	0.221
2.	Mutual Understanding and Trust	4.00	3.35	3.90	3.56	1.440	0.243
3.	Information Sharing and Flow	3.63	3.25	3.75	3.43	0.769	0.517
4.	Strategic Supplier and customer Relationships	3.35	3.36	3.97	3.28	1.751	0.170
5.	Organization Factors	3.57	3.22	3.77	3.30	1.575	0.208
	the external factors	3.70	3.31	3.85	3.39	1.446	0.242
	Supply Chain Responsiveness	3.63	3.46	3.76	3.42	0.401	0.753
	All items of the questionnaire	3.69	3.34	3.83	3.39	1.234	0.308

- **There are statistical significant differences at a significant level 0.05 among the external factors affecting the supply chain responsiveness at UNRWA Gaza due to qualification.**

Table (4.12) shows that the p-value (Sig.) is greater than the level of significance α = 0.05 for each field, then there is insignificant difference among the respondents toward each field due to qualification.

It can be concluded that the personal characteristics' qualification has no effect on each field. There are no significant differences between the responses due to qualifications, which mean they did not provide concert answers as they tend to depend on the practices and use the same traditional methods more than depending on the qualifications. The results for diploma and bachelor holders as they are the dominant number and reflect that supply chain specialists are not available in the agency, so UNRWA should encourage the staff to get more specialized courses and to get these degrees in this field to be more qualified. UNRWA does not provide any reward or privilege to the staff that persuade higher education.

Table (4.12): ANOVA test of the fields and their p-values for qualification

No.	Field	Means			Test Value	Sig.
		Diploma	Bachelor	Master and PhD		
1.	Top Management Commitment	3.64	3.40	3.71	0.417	0.661
2.	Mutual Understanding and Trust	3.35	3.97	3.66	0.725	0.490
3.	Information Sharing and Flow	3.52	3.64	3.46	0.125	0.883
4.	Strategic Supplier and customer Relationships	3.60	4.02	3.36	2.188	0.123
5.	Organization Factors	3.60	3.53	3.42	0.172	0.843
	the external factors	3.55	3.69	3.52	0.167	0.847
	Supply Chain Responsiveness	3.25	3.87	3.54	0.948	0.395
	All items of the questionnaire	3.50	3.73	3.52	0.255	0.776

- **There are statistical significant differences at a significant level 0.05 among the external factors affecting the supply chain responsiveness at UNRWA Gaza due to Occupation Type.**

Table (4.13) shows that the p-value (Sig.) is greater than the level of significance $\alpha = 0.05$ for each field, then there is insignificant difference among the respondents toward each field due to Occupation Type.

It can be concluded that the personal characteristics' Occupation Type has no effect on each field. There are no significant differences between the responses due to occupation type, which means they did not give tangible answers. This should be justified as both who is recruited on international or local positions follow the same rules, regulations, procedures and use the same manuals of UNRWA. So UNRWA should work hard to develop the staff capacities and skills, also should hire specialists and involve the staff who worked in different areas and agencies to exchange experience and skills and improve its practices.

Table (4.13): Independent Samples T-test of the fields and their p-values for Occupation Type

No.	Field	Means		Test Value	Sig.
		International position	Local position		
1.	Top Management Commitment	3.41	3.69	-0.814	0.419
2.	Mutual Understanding and Trust	3.75	3.67	0.209	0.836
3.	Information Sharing and Flow	3.59	3.49	0.274	0.786
4.	Strategic Supplier and customer Relationships	3.90	3.43	1.410	0.165
5.	Organization Factors	3.53	3.45	0.267	0.791
	the external factors	3.61	3.54	0.205	0.838
	Supply Chain Responsiveness	3.67	3.55	0.344	0.732
	All items of the questionnaire	3.62	3.55	0.239	0.812

- **There are statistical significant differences at a significant level 0.05 among the external factors affecting the supply chain responsiveness at UNRWA Gaza due to Occupation.**

Table (4.14) shows that the other fields, the p-value (Sig.) is greater than the level of significance α = 0.05, then there is insignificant difference among the respondents toward these fields due to Occupation. Except for the top management commitments as it has a significant difference as the officers value and appreciate the top management commitment and understand their obligations and commitments towards the agency as well as their rights and entitlements more than other staff. It could be justified that most of my respondents were at the middle management level.

For the field "Top Management Commitment", the p-value (Sig.) is smaller than the level of significance α = 0.05. this means that there is significant difference among the respondents toward this field due to Occupation. It can be concluded that the personal characteristics' Occupation has an effect on this field.

For field "Top Management Commitment", The mean for the category " Officer " respondents have the highest among the other Occupation category, then It can be concluded that the category " Officer " respondents is agreed much more than the other Occupation.

It can be concluded that the personal characteristics' Occupation has no effect on the other fields. This means that there are no tangible answers on these fields. Improvement is a core requirement; more training, workshops and discussions are essentially needed to give the supply chain staff a build relationship of trust and get to know the team members well, to facilitate their jobs and to know why they are not up to the required standards. Information sharing does not mean breaking the confidentiality, but to effectively communicate to achieve better standards of the services delivery. UNRWA Procurement Manual puts restrictions and limits on staff relationships with suppliers and customers; so strategic relationships should be clear when it should be built and to what extent. The organization structure, culture and practices should be well known to all staff levels, especially the senior staff to give them the full picture of what is allowed and what is prohibited.

Table (4.14): ANOVA test of the fields and their p-values for Occupation

No.	Field	Means			Test Value	Sig.
		Head of department and Deputy Head of Department	Senior Officer	Officer		
1.	Top Management Commitment	3.10	3.55	3.92	3.549	0.037*
2.	Mutual Understanding and Trust	3.68	3.57	3.76	0.188	0.829
3.	Information Sharing and Flow	3.45	3.23	3.69	1.118	0.336
4.	Strategic Supplier and customer Relationships	3.64	3.28	3.58	0.708	0.498
5.	Organization Factors	3.30	3.32	3.61	0.987	0.380
	The external factors	3.40	3.39	3.72	1.091	0.344
	Supply Chain Responsiveness	3.58	3.32	3.72	1.075	0.349
	All items of the questionnaire	3.43	3.37	3.72	1.093	0.344

* The mean difference is significant a 0.05 level.

2 There are statistical significant differences at a significant level 0.05 among the external factors affecting the supply chain responsiveness at UNRWA Gaza due to years of experience.

Table (4.14) shows that the p-value (Sig.) is greater than the level of significance $\alpha = 0.05$ for each field, then there is insignificant difference among the respondents toward each field due to years of experience.

It can be concluded that the personal characteristics' years of experience has no effect on each field. Despite the years of experience the respondents did not give a concert answers; some their experience is short such as the newly graduated so they have new ideas, skills more than who has more experience. Regarding who has more experience they usually use the traditional ways; but we can get benefit of them for the lesson learnt to avoid doing same mistakes or obstacles they faced before. As the supply chain is a new filed and has grown fast last couple years due to different reasons we cannot relate it how successful it's to the experience at UNRWA Gaza level as it is still growing and improving.

Table (4.14): ANOVA test of the fields and their p-values for Years of Experience

No.	Field	Means				Test Value	Sig.
		Between 1-3 years	Between 4-5 years	Between 6-10 years	More than 10 years		
1.	Top Management Commitment	4.31	3.83	3.38	3.59	1.437	0.244
2.	Mutual Understanding and Trust	3.70	3.79	3.52	3.72	0.140	0.936
3.	Information Sharing and Flow	3.72	3.40	3.22	3.60	0.509	0.678
4.	Strategic Supplier and customer Relationships	3.24	3.47	3.29	3.64	0.592	0.623
5.	Organization Factors	3.60	3.87	3.27	3.42	0.905	0.446
	The external factors	3.73	3.67	3.33	3.59	0.428	0.734
	Supply Chain Responsiveness	3.52	3.39	3.48	3.65	0.219	0.883
	All items of the questionnaire	3.70	3.62	3.36	3.60	0.315	0.814

Chapter 5

Conclusion and

Recommendations

5.1 Introduction

The purpose of this research was to examine the extent do the external factors affect the supply chain responsiveness at UNRWA Gaza. The research was conducted through a custom designed, self-directed survey, 50 purposefully selected participants responded to 31 survey items.

Chapter five is an explanation of the results, including a discussion of the findings and the implications of these findings. Emphasis will focus on the implications to current research. Limitations on the current research will be provided, as well as suggestions regarding the direction of future research.

5.2 Conclusion:

This study evaluates the external factors and their significant effect on supply chain responsiveness and after the analysis and interpretation of the data, the researcher is able to conclude the following:

1 There is a strong relationship between the external factors and the supply chain responsiveness, which means that the supply chain responsiveness rate is high as soon as the external factors rate is high; these factors have strong significant effect on supply chain responsiveness and this is obvious from the percentage %73.2 which has been found. It is clear that as much improvements and efforts UNRWA puts on the external factors, it will get it back in effective supply chain responsiveness.

2 There is no significant effect for Top Management Commitment on Supply Chain Responsiveness; but has a positive relationship with it. It seems that there is other factors should be tested and pay more attention to examine this effect.

3 There is a significant effect for Mutual Understanding and trust and positive relationship on Supply Chain Responsiveness, so if we have a higher level of Mutual Understanding and trust this will lead to a higher level of supply chain responsiveness.

4 There is no significant effect for Information Sharing and Flow on Supply Chain Responsiveness; but have a positive relationship with it. It seems that there is other elements should be tested and pay more attention to examine this effect.

5 There is a significant effect for Strategic Supplier and Customer Relationships and positive relation on Supply Chain Responsiveness; but have a positive relationship with it. So if we have a higher level of top management commitment this will not lead to a higher level of supply chain responsiveness.

6 There is no significant effect for Organization Factors on Supply Chain Responsiveness. It seems that there is other elements should be tested and pay more attention to examine this effect.

7 There is a significant difference among the respondents toward these external factors due to gender. This could be justified as most of the senior staff is men and they consider supply chain is masculine jobs as they are tough for female staff to join such a field. In addition, there are some cultural constrains for women to build relations with suppliers/customers

8 There is insignificant difference among the respondents toward the external factors due to age. which means the age does not have any influence on the supply chain responsiveness

9 There is insignificant difference among the respondents toward the external factors due to qualification. This means they did not provide concert answers as they tend to depend on the practices and use the same traditional methods more than depending on the qualifications.

10 There is insignificant difference among the respondents toward the external factors due to Occupation Type. This should be justified as both who is recruited on international or local positions follow the same rules, regulations, procedures and use the same manuals of UNRWA.

11 There is insignificant difference among the respondents toward the external factors due to Occupation. Except for the top management commitments as it has a significant difference.

12 There is insignificant difference among the respondents toward the external factors due to years of experience. It can be concluded that the personal characteristics' years of experience has no effect on the external factors.

13 UNRWA as non-profit organization it was not targeted in any of these researches; so from this point the researcher found that should focus and have a clear understanding of supply chain responsiveness itself which is implemented

at UNRWA Gaza and how to assist in providing highest level through presenting the external factors that affect and help to establish and upgrading a coordinated and responsive supply chain at UNRWA Gaza.

5.3 Recommendations and Future studies:

UNRWA should make sure that the external factors performance level should be maintained to the highest level all the time. It is a must for UNRWA to keep enhancing the supply chain responsiveness through improving the external factors and implement new methods to stay updated in this field. The following recommendation may not be equally true in case of the other UNRWA fields, as they do not have same challenges which UNRWA Gaza has. Thereby, they are able to integrate in the supply chain in more effective manner:

1. The top management commitment should explain their intention for long term investments such as hiring a qualified staff, contracting with very good suppliers and if they are adopting a new technology or an organizational structure

2. UNRWA should give the required attention to monitor the suppliers' performance so a contracts management unit should be established to control the performance. UNRWA should concentrate on making the supply chain staff involved in the new decisions and the new approaches they are planning to apply within UNRWA.

3. UNRWA should consult with the staff especially procurement and logistics staff if this term should be changed and what is the concerns behind it, this change could be DAP Jerusalem warehouse instead of Gaza then UNRWA will take care of the coordination for these goods to cross the crossing. So the staff will be part of the new decision and will make sure it's implemented on the right way instead of fight and work against it; then the implementation process will be more successful and the staff will be in a better position to explain to the suppliers and customers the new decision on the right way.

4. Improvement is needed in communication with the end users and the management regarding new systems. Create online tracking system and assign a special team to track the goods movements in each stage and to deal with received comments, recommendation and suggestion from the operational staff. UNRWA should work hard on convincing the old staff to share their knowledge and experience

with the new staff members and write Standard Operation Procedures "SOP" for the supply chain. It's not easy to get these staff to cooperate with this suggestion, but they could be assigned as a team leaders for a unit and give them motivations such as financial rewards for their performance and have an evaluation tool for the new staff to make sure they are learning from their experience not just wasting time. Create online tracking system for the supply chain process so all the involved staff will be aware of the goods movements and each stage.

5. More training and workshops are needed to maintain high standards of ethical behaviour and to clarify the rules for relationships with the supplier/customer and avoid corruption and misbehaviours

6. UNRWA improved its culture; promoting transparency, gender equality, neutrality, safety and security; and combating discrimination. UNRWA started to encourage cross-functional training of its employees between the five fields; but more training and create awareness still needed.

7. UNRWA should have long term agreements with suppliers, and contracts with good companies for custom clearance to decrease the storage and the demurrage costs; Maintaining good communication channels with the authorities to liaise and coordinate goods and staff movements; by creating a new unit for liaison and coordination with local and international staff and have a clear manual and policy for how the duties should be done in a proper way.

8. Despite this percentage is positive but UNRWA as a well-known international humanitarian and relief organization should enforces a high standard of service delivery; so improvements are a must mainly for the organizations factor and Information sharing and flow by adapting new approaches to get it to the required level of professionalism.

9. This study may provide a way for future research of these factors in UNRWA five fields, such as Syria, Jordan, Lebanon and West bank, which they are different environments and other factors that will be shown a source of enhancement in supply chain responsiveness. It would be interesting to explore other measurements of supply chain responsiveness, not considered in this study, such as assembly responsiveness and internal factors including the inbound and outbound logistics responsiveness and operation responsiveness

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Appendix

Dear Colleague,

I'm gathering research information about the Factors Affecting the Supply Chain Responsiveness at UNRWA Gaza, to complete thesis in business administration at the Islamic University of Gaza.

This survey takes approximately 15- 20 minutes to complete. I really appreciate your voluntary cooperation and participation. Completing and returning this questionnaire will be interpreted as your consent to participate, although you have the right to withdraw at any time.

Please read the instruction associated with each section and each question carefully. Your responses to the items asked in this questionnaire will be treated with total and absolute confidentiality. Your responses will not be disclosed to anyone within your organization.

Please answer honestly. There is no right or wrong responses. When you finish the survey, please return it to the researcher.

Thank you for your sincere cooperation.

Sincerely,
Wafaa Nasman

Section 1: Personal information:
1. Gender:

☐ Male   ☐ Female

2. Age:

☐ Less than 30 years   ☐ Less than 40 years
☐ Less than 50 years   ☐ Less than 60 years

3. Qualification:

☐ Diploma   ☐ Master
☐ Bachelor   ☐ PhD

4. Occupation Type:

☐ International position   ☐ Local position

5. Occupation:

☐ Director   ☐ Deputy Director
☐ Head of department   ☐ Deputy Head of Department
☐ Senior Officer   ☐ Officer

6. Years of Experience:

☐ Between 1-3 years   ☐ Between 4-5 years
☐ Between 6-10 years   ☐ More than 10 years

Section 2: Questions:

The research questions on these topics are operationalized through a series of statements, to which participants responded using a ten point format, grading from "1- strongly disagree" to "5- strongly agree".

1-	**Top Management Commitment**	⟶				
#	**Item**	**1**	**2**	**3**	**4**	**5**
1	Top management commitment affects positively investment of time and money for resource development.					
2	Top management commitment influences the focused communication system.					
3	Top management commitment increases the Long term investment intention.					

4	Top management commitment encourages strongly commitment to promises.					
5	Top management commitment makes you ready to adopt new technology.					
6	Top management commitment ensures employees training and empowerment					

2- Mutual Understanding and Trust

#	Item	1	2	3	4	5
1	Mutual understanding and trust has a positive result on agreed vision and goals of members of supply chain.					
2	Mutual understanding and trust has a big influence on the development in supply chain process.					
3	Mutual understanding and trust are essential for effective implementation of joint replenishment forecasting decision.					
4	Mutual understanding and trust minimize supply chain risks.					

3- Information Sharing and Flow

#	Item	1	2	3	4	5
1	Information sharing and flow facilitate the usage of information technology tools and techniques.					
2	Information sharing and flow is important to the tracking at supply chain process linkage.					
3	Information sharing and flow enforce the sharing of data related to purchasing and supplies.					
4	Information sharing and flow force the implementing of knowledge sharing.					
5	Information sharing and flow force the implementation of design data sharing.					

4- Strategic Supplier and customer Relationships

#	Item	1	2	3	4	5
1	Strategic supplier and customer relationships help in developing long term relationship with suppliers.					
2	Strategic supplier and customer relationships help in developing long term relationship with customers.					

3	Strategic supplier and customer relationships influence positively the logistics synchronization.					
4	Strategic supplier and customer relationships result in a better supply chain integration.					
5	Strategic supplier and customer relationships increase the rationalization of suppliers					

5- Organization Factors:

#	Item	1	2	3	4	5
1	Organization factors affecting coordination of supply chain Lean organization structure.					
2	Organization factors motivate you to operate Just In Time and lean practices.					
3	Organization factors influence positively organization culture for supply chain implementation.					
4	Organization factors consider seriously the role of supply chain with respect to other factors.					
5	Organization factors affect positively cross-functional training of employees.					

6- Supply Chain Responsiveness

#	Item	1	2	3	4	5
1	Supply chain responsiveness influences positively Flexibility in Production system.					
2	Supply chain Responsiveness ensures delivery on time.					
3	Supply chain responsiveness maximizes the degree of service Reliability.					
4	Supply chain responsiveness increases the ability to adopt changes.					
5	Supply chain responsiveness increases positively the supplier's and the end user satisfaction.					
6	Supply chain responsiveness affects positively the interpersonal relations.					

Many thanks

Appendix (II): List of Reference's Names and Titles

List of Jurors:

No	Juror Name	Working Place	Specialization
1	Dr. Wasim Alhabil	Islamic University of Gaza	Ph.D., Management
2	Dr. Sami Abou-Al-Ross	Islamic University of Gaza	Ph.D., Management
3	Jodie Clark	Logistics Consultant	Master in Humanitarian Logistics
4	Larisa Mrnkova	UNRWA- Gaza	MBA