



كلية التجارة
إدارة أعمال

تأثير خصائص المنشآت الصغيرة على متطلبات الإمداد
المتكامل مع المنشآت كبيرة الحجم

" دراسة ميدانية على صناعة الملابس الجاهزة في مصر "

دراسة مقدمة للحصول على درجة الماجستير في إدارة الأعمال

إعداد

علا ممدوح محمود حمدي

باحثة

تحت إشراف

دكتورة/ منى صلاح الدين شريف

مدرس بقسم إدارة الأعمال

كلية التجارة - جامعة عين شمس

دكتور/حسين محمد شرارة

أستاذ مساعد بقسم إدارة الأعمال

كلية التجارة - جامعة عين شمس



**Ain Shams University
Faculty of Commerce
Business Administration Dept.**

**The Impact of Small Firms'
Characteristics on the Requirements of
Integrated Logistics with Large Firms
(A Field Study on the Garment Industry in Egypt)**

Thesis submitted in partial fulfillment for Master Degree
in Business Administration

Presented by

Ola Mamdouh Mahmoud Hamdy
Researcher

Supervised by

Dr. Hussein Mohamed Sharara
Assistant Prof. of Business Administration
Faculty of Commerce
Ain Shams University

Dr. Mona Salah Eldin Sherif
Lecturer of Business Administration
Faculty of Commerce
Ain Shams University

2011

بسم الله الرحمن الرحيم

اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ (١) الْإِنْسَانَ مِنْ عَلَقٍ
(٢) الْقَلَمِ أَوْ رَبُّكَ الْأَكْبَرُ (٣) الَّذِي عَلَّمَ بِالْقَلَمِ (٤)
لَيْسَ الْإِنْسَانُ مَا لَمْ يَعْلَمْ (٥)

صدق الله العظيم
سورة العلق آية (١ : ٥)

Table of Contents

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Section	Title	Page
	Abstract	I-III
	Chapter 1: Introduction and Research Framework	
		2
1.1	Introduction	2
1.2	Problem Definition	5
1.3	Research Expressions	6
1.4	Literature Review	28
1.5	Hypotheses	33
1.6	Research Objective	35
1.7	Research Importance	36
1.8	Research Methodology	36
1.9	Limitations of the Research	37
	Chapter 2: Effect of Management in Small Firms on Integrating Logistically with Large Firms	
		39
	Section One: The Impact of Management in Small Firms on Integrating Logistically with Large Firms	43
2.1	Manager's Swift Response to Operational Issues	43
2.2	Manager's Objective of Sustainability	45
2.3	Manager's Democracy and Authority Delegation	55

Section	Title	Page
	Section Two: Small Firms' Characteristics from a Management Perspective	56
2.4	Success Factors/ Barriers for Small Firms	56
	Chapter 3: Effect of Specialization in Small Firms on Integrating Logistically with Large Firms	59
	Part One: Flexibility	60
3.1	Flexibility in Small Firms	60
	Section One: The Impact of Flexibility in Small Firms on Integrating Logistically with Large Firms	68
3.2	Effect of Flexibility in Small Firms on Agile Logistics	68
3.3	Effect of Flexibility in Small Firms on Lean Logistics	71
3.4	Effect of Flexibility in Small Firms on Collaboration along the Supply Chain	77
	Section Two: Small Firms Characteristics' from a Flexibility Perspective	84
3.5	Success Factors for Small Firms	84
3.6	Barriers to Small Firms	87
	Section Three: Flexibility Logistics Integration Mechanisms	90
	Part Two: Decision Making Process in Small Firms	90

Section	Title	Page
3.7	Effect of Decision Making Process in Small Firms on Integration	91
3.8	Effect of Decision Making Process in Small Firms on Lean and Agile Logistics	92
	Chapter 4: Effect of Information Systems in Small Firms on Integrating Logistically with Large Firms	95
	Section One: The Impact of Information Systems in Small Firms on Integrated Logistics with Large Firms	99
4.1	Effect of Information Systems in Small Firms on Agile Logistics	99
4.2	Effect of Information Systems in Small Firms on Lean Logistics	104
4.3	Effect of Information Systems in Small Firms on Integration	107
	Section Two: Small Firms' Characteristics from an Information Systems Perspective	113
4.4	Barriers of Utilizing Information Technology in Small Firms	113
4.5	Adoption of Information Technology in Small Firms	122
	Section Three: Logistics Integration Mechanisms	123

Section	Title	Page
	Chapter 5: Effect of Planning in Small Firms on Integrating Logistically with Large Firms	125
	Section One: The Impact of Short Planning Horizon in Small Firms on Integrated Logistics with Large Firms	128
5.1	Effect of Short Planning Horizon on Agile Logistics	128
5.2	Effect of Short Planning Horizon on Lean Logistics	128
5.3	Effect of Short Planning Horizon on Integration	132
	Section Two: Small Firms' Characteristics from the Strategic Planning Perspective	137
5.4	Success Factors and Barriers to Small Firms	138
	Chapter 6: Effect of Operations Management in Small Firms on Integrating Logistically with Large Firms	142
	Section One: The Impact of Operations Management in Small Firms on Integrated Logistics with Large Firms	143
6.1	Operations Oriented Organizational Structure	143
6.2	Small Size Production Lines	146
6.3	Access to Computerization	147

Section	Title	Page
	Section Two: Small Firms' characteristics from an Operations Management Perspective	148
6.4	Success Factors and Barriers for Small Firms	149
6.5	World Class Manufacturing for Small Firms	152
	Section Three: Logistics Integration Mechanisms in Operations Management	155
6.6	JIT	158
6.7	Possibility of Transferring Advanced Management Practices developed in Large Companies to Small Firms	161
	Chapter 7: Application of the QFD Matrix	164
7.1	QFD History	165
7.2	QFD Definition	165
7.3	Research Nature in applying QFD tool	168
7.4	Research Sample	169
7.5	Questionnaire Design	171
7.6	Building House of Quality	172
7.7	QFD Analysis	182
7.8	Importance Weighting Interpretation	209
7.9	Developing Action Plans	215
7.10	Multivariate Linear Regression Analysis	216
	Chapter 8: Conclusion and Recommendations	224
8.1	Methodology of Analysis	225
8.2	Conclusion	230
8.3	Recommendations	232

Section	Title	Page
	References	240
1-	Public Documents	240
2-	Books	240
3-	Periodicals	242
4-	Internet	260
5-	Reports	261
6-	Personal Interviews	262
	English Summary	263
	Appendix 1: Small Firms' Questionnaires	1-13
	Appendix 2: Large Firms' Questionnaires	1-6
	Arabic Summary	1-4

List of Figures

=====

Figure No.	Title	Page
Figure 1.1	The Range of Buyer Seller Relationships	13
Figure 1.2	Small Firms Characteristics	18
Figure 1.3	Integrated Logistics Requirements	24
Figure 5.1	An operations management typology of supply chain management trading relationships	137
Figure 7.1	Integrated Logistics Requirements	175
Figure 7.2	Importance weighting of small Firms characteristics for small firms operating in Global supply Chains	210
Figure 7.3	Importance weighting of small Firms Characteristics for Small Firms operating in Local supply Chains	212
Figure 7.4	Importance weighting of small firms Characteristics for aggregate small firms (local and Global Supply Chains)	214

List of Tables

=====

Table No.	Title	Page
Table 1.1	The Factors that increase the Complexity of Logistics Chain Management	5
Table 1.2	Relationship between the firm and supplier from two views: Conflict View and Cooperation view	12
Table 1.3	Relationship Matrix between Small Firms' Characteristics and Integrated Logistics Requirements of Large Firms	27
Table 4.1	Computer applications usage	99
Table 4.2	Components of Emotional Intelligence at Work	118
Table 4.3	Information Systems Logistics Integration Mechanisms	124
Table 6.1	Integrated Logistics Mechanisms in Operations Management	158
Table 7.1	Degree of importance of integrated logistics requirements	177

List of Matrices

=====

Matrix No.	Title	Page
Matrix 7.1	QFD matrix for small firms operating in global supply chains	184
Matrix 7.2	QFD matrix for small firms operating in local supply chains	185
Matrix 7.3	QFD matrix for aggregate small firms (local and global supply chains)	186

Abstract

The Impact of Small Firms' Characteristics on the Requirements of Integrated Logistics with Large Firms (A Field Study on the Garment Industry)

Purpose

The research is concerned with examining the characteristics of small firms that may be favorable or unfavorable to integrated logistics with large firms. Adaptation to the demands of logistics integration is as true for large firms as for small firms, which must adjust to the needs of their customers to preserve their market shares and to assure their growth.

Research Objectives

To better understand the nature of the integrated logistics function in small firms, which often can be translated into a sustainable competitive advantage, and to spot lights on the points of weaknesses and strengths in small firms that can be either unfavorable or favorable to logistics integration. Thereby this will support the points of strengths and discourage the points of weaknesses to shift the logistics function in small firms from just a single fragmented function to an integrated function within the firm and along with its order giver (large firm).

Methodology

The research develops a house of quality model that allows us to identify the types of relationships between the small firms' characteristics and the integrated logistics requirements. In

developing the QFD, the primary objective is to understand the positive strong relationships so as to deduce the key characteristics that are favorable to integrated logistics with the large firms. In addition to spotting the negative relationships so the small firm could work on improving these characteristics that are unfavorable to integrated logistics. A multivariate linear regression analysis was, also, used to find the impact of each small firm characteristic (independent variables) on integrated logistics requirements (dependent variable) which supported the QFD's outcomes.

Findings

Research proved the existence of significant relationships between logistics integration requirements and each of the following small firms' characteristics: manager's democracy and authority delegation, simple decision making process, utilization of information technology, long term planning and operations-oriented organization structure. Also, findings indicate that the sample can be divided into small firms whose customers operate locally and were referred to as "small firms operating in local supply chains", and small firms whose customers are involved in the export activity and were referred to as "small firms operating in global supply chains". Accordingly, the nature of the supply chain (local or global supply chain) is a key factor in determining the small firms' required characteristics that are favorable to integrate logistically with the large firms.

Research limitations/implications

The next stage of the research is to undertake an in-depth longitudinal case study of a number of manufacturing small firms in only one of the supply chains with the aim of gaining

a better insight of the issues concluded from the developed house of quality. The coming research could collect data that focus on the interaction of both short term operational planning issues and longer term strategic view within each of the selected business.

Practical Implications

Integrated logistics chain management has an impact not only on company operations, but also on intercompany relationships. As a result, small firms that supply for large firms are now under pressure to implement integration mechanisms because their large customer firms need integration to improve their efficiency. The small firms' characteristics may be either encouraging or discouraging integrating logistically with large manufacturer firms. Characteristics examined are management, specialization, IT utilization, and long term planning and operations management. On the other side, integrated logistics requirements are collaboration along the supply chain, lean logistics and agile logistics.

Keyword(s):

Supply Chain Management; Logistics Integration; Small Firms; Small to medium-sized enterprises; QFD; House of Quality.