AN EMPIRICAL STUDY ON THE RELATIONSHIP
BETWEEN HUMAN RESOURCE PRACTICES AND SUPPLY
CHAIN MANAGEMENT IN SELECTED PRIVATE SECTOR
ORGANIZATIONS IN SRI LANKA

By

Harishani Lasanthi Liyanage
GS/M.Sc./MGT/13437/08

Thesis submitted to the University of Sri Jayewardenepura for the
award of the Degree of Master of Science (Management)
2011
The work described in this thesis was carried out by me under the supervision of Dr. (Mrs.) Bhadra J.H. Arachchige and a report on this has not been submitted in whole or in part to any university or any other institution for another Degree/Diploma.

Ms. Harishani Lasanthi Liyanage

I certify that the above statement made by the candidate is true and that this thesis is suitable for submission to the university for the purpose of evaluation.

Dr. (Mrs.) Bhadra J.H. Arachchige
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Contents</td>
<td>I-IV</td>
</tr>
<tr>
<td>List of Tables</td>
<td>V-VII</td>
</tr>
<tr>
<td>List of Figures</td>
<td>VIII</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>IX</td>
</tr>
<tr>
<td>Abstract</td>
<td>X</td>
</tr>
<tr>
<td>Chapter 1</td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Background to study</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Identification of the research problem</td>
<td>4</td>
</tr>
<tr>
<td>1.3 Research question</td>
<td>5</td>
</tr>
<tr>
<td>1.4 Objectives of the study</td>
<td>5</td>
</tr>
<tr>
<td>1.5 Scope of the study</td>
<td>6</td>
</tr>
<tr>
<td>1.6 Significance of the research</td>
<td>7</td>
</tr>
<tr>
<td>1.7 Organization of the study</td>
<td>8</td>
</tr>
<tr>
<td>Chapter 2</td>
<td>9</td>
</tr>
<tr>
<td>Literature Review</td>
<td>9</td>
</tr>
<tr>
<td>2.1 Introduction</td>
<td>9</td>
</tr>
<tr>
<td>2.2 Emergence of the supply chain management philosophy</td>
<td>9</td>
</tr>
<tr>
<td>2.3 Supply chain</td>
<td>10</td>
</tr>
<tr>
<td>2.4 Supply chain orientation</td>
<td>11</td>
</tr>
</tbody>
</table>
2.5 Defining supply chain management

2.6 Supply chain management as a set of activities to implement a management philosophy

2.7 Importance of behavioral elements in supply chain management

2.8 Human resource management practices facilitating supply chain management

2.9 Approaches to human resource practices

2.10 Relationship based staffing

2.11 Relationship based training

2.12 Relationship based employee performance evaluation

2.14 Employee relations

2.15 Relationship between relationship based human resource management practices on supply chain management and mediating effect of supply chain orientation

2.16 Summary

Chapter 3

Conceptualization, Operationalization and Research Methodology

3.1 Introduction

3.2 Conceptual framework of the study

3.4 Conceptualization and operationalization

3.6 Validity

3.7 Reliability

3.8 Final measurement item purification

3.9 Summary
Chapter 4 ................................................................. 86

Data Presentation and Analysis ......................................................... 86

4.1 Introduction ............................................................................ 86

4.2 Demographic characteristics of the sample ................................ 86

4.3 Descriptive analysis of the sample ............................................ 89

4.4 Correlation analysis of relationship based human resource management practices and supply chain orientation ..................................................... 95

4.5 The human resource management practices that support the supply chain orientation .......................................................... 96

4.6 Hypothesis testing ................................................................. 97

4.7 Summary ............................................................................. 106

Chapter 5 ............................................................................................. 107

Discussion of the findings ................................................................. 107

5.1 Introduction ............................................................................ 107

5.2 Discussion of the findings ....................................................... 107

5.3 Summary ............................................................................. 111

Chapter 6 ............................................................................................. 112

Conclusions and Recommendations ............................................. 112

6.1 Introduction ............................................................................ 112

6.2 Conclusions of the study ....................................................... 112

6.3 Delimitations of the study ..................................................... 113

6.4 Recommendations of the study and managerial implications .... 114

6.5 Suggestions for future research .............................................. 116
List of Tables

Table 2.1: Summary of definitions of supply chain management .....................16
Table 2.2: Characteristics of transaction based and relationship based ............42
human resource practices
Table 3.1: Dimensions and elements of relationship based human.................55
resource management practices
Table 3.2: Dimensions and elements of supply chain orientation ..................60
and supply chain management
Table 3.3: Detailed factor loadings for relationship based human ..................73
resource management practices
Table 3.4: Detailed factor loadings for supply chain orientation ..................75
Supplier’s scale
Table 3.5: Detailed factor loadings for supply chain orientation ..................76
Customer’s scale
Table 3.6: Detailed factor loadings for supply chain management ..................78
Supplier’s scale
Table 3.7: Detailed factor loadings for supply chain management ..................80
Customer’s scale
Table 3.8: Cronbach Alpha values for purified dimensions of relationship ...82
based human resource management practices
Table 3.9: Cronbach Alpha values for purified dimensions of supply chain ...83
orientation and supply chain management
Table 3.10: Final factor loadings for relationship based human resource management practices
Table 3.11: Final factor loadings for supply chain orientation
Table 3.12: Final factor loadings for supply chain management
Table 4.1: Industry wise analysis of the sample
Table 4.2: Descriptive analysis of relationship based human resource management practices
Table 4.3: Descriptive analysis of supply chain orientation towards suppliers
Table 4.4: Descriptive analysis of supply chain orientation towards customers
Table 4.5: Descriptive analysis of direct supply chain’s supply chain orientation
Table 4.6: Descriptive analysis of supply chain management towards suppliers
Table 4.7: Descriptive analysis of supply chain management towards customers
Table 4.8: Descriptive analysis of direct supply chain’s supply chain management
Table 4.9: Descriptive statistics for three main concepts
Table 4.10: Correlation analysis of relationship based human resource management practices and supply chain orientation
Table 4.11: Model Summary
Table 4.12: Coefficients table
Table 4.13: Relationship between relationship based human resource management practices and supply chain orientation

Table 4.14: Relationship between supply chain orientation and supply chain management

Table 4.15: Condition one - Relationship between relationship based human resource management practices and supply chain management

Table 4.16: Condition two - Relationship between the relationship based human resource management practices and supply chain orientation

Table 4.17: Condition three - Relationship between supply chain orientation and supply chain management after controlling the independent variable

Table 4.18: Condition four - Relationship between the independent variable and dependent variable is reduced when supply chain orientation is in the equation

Table 4.19: Sobel Test statistics
**List of Figures**

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Three degrees of supply chain complexity</td>
<td>11</td>
</tr>
<tr>
<td>2.2</td>
<td>A model of supply chain management</td>
<td>18</td>
</tr>
<tr>
<td>2.3</td>
<td>The integrated supply chain framework</td>
<td>19</td>
</tr>
<tr>
<td>2.4</td>
<td>SCOR terminology of supply chain management</td>
<td>20</td>
</tr>
<tr>
<td>2.5</td>
<td>Nature of positive relationship among human resource variables and supply chain performance</td>
<td>41</td>
</tr>
<tr>
<td>3.1</td>
<td>Conceptual framework of the study</td>
<td>46</td>
</tr>
<tr>
<td>3.2</td>
<td>Hypothesis development of the study</td>
<td>47</td>
</tr>
<tr>
<td>3.3</td>
<td>The human resource architecture</td>
<td>52</td>
</tr>
<tr>
<td>3.4</td>
<td>Dimensions of relationship based human resource practices</td>
<td>54</td>
</tr>
<tr>
<td>3.5</td>
<td>Dimensions of supply chain orientation</td>
<td>57</td>
</tr>
<tr>
<td>3.6</td>
<td>Dimensions of supply chain management</td>
<td>59</td>
</tr>
<tr>
<td>4.1</td>
<td>Brand value analysis</td>
<td>88</td>
</tr>
<tr>
<td>4.2</td>
<td>Mediation effect</td>
<td>102</td>
</tr>
<tr>
<td>4.3</td>
<td>Sobel Test of mediation</td>
<td>104</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENT

First and foremost I would like to express my sincere gratitude to my research supervisor Dr. (Mrs.) Bhadra J. H. Arachchige for continuous support extended throughout my MSc thesis studies. Her guidance, encouragement, motivation, insight and knowledge helped me from the beginning to the end of the thesis writing process.

Besides my adviser, I would like to thank Dr. P. D. Nimal, coordinator, Master of Management program, University of Sri Jayewardenepura for his encouragement and immense support. My sincere gratitude goes to Mr. Duminda Kuruppuarachchi, Senior Lecturer, Department of Decision Sciences for the support given in statistical analysis. Further I would like to thank all senior managers of the selected organizations for their knowledge sharing and time allocation.

Last but not least I would like to extend my gratitude to my family members who provided continuous support during my thesis writing period.
ABSTRACT

The human dimension of the supply chain needs more attention in years to come, which contributes to solve many unsolved problems of the effective implementation of supply chain management. Extant researches have established that human resource practices have an impact on supply chain management. The purpose of this study is to identify the relationship between selected human resource management practices that facilitate supply chain management. Hence, this study focuses on empirically testing the relationship between selected relationship based human resource management practices and supply chain management. Further, the mediating effect of supply chain orientation in Sri Lankan context.

The study uses positivist paradigm. Sample of the study comprises of 45 best brand holding organizations in Sri Lanka. Correlation analysis, Linear regression analysis, Baron and Kenny method of testing mediating effect and Sobel Test were carried out using SPSS 14 and Sobel Test Macro software package. Results revealed that there is a statistically significant positive correlation between the relationship based human resource management practices on supply chain management. Further, supply chain orientation revealed a mediating effect on relationship based human resource management practices and supply chain management. Hence, it was recommended to use relationship based human resource practices to enhance the implementation of supply chain management. Limitations and the future recommendations of the study were developed based on the findings of the research study.
Chapter 1

Introduction

1.1 Background to study

Globalization, short product life cycles, mass customization, life time customer value focus, time and quality based competition, profound improvements in information technology and the emergence of the knowledge economy have drastically changed the business practices in today’s business world (Mentzer, 2004; Perez and Martinez, 2007). The relationships among the upstream and downstream partners of a focal firm, irrespective of the location, are vital for its success. The long term sustainable development lies in collaborative relationships among the business partners (Mentzer, 2004). Organizations are moving towards collaboration as a strategy for competition (Meyer, 2011). Thus it is argued that competition in today’s business environment is not among individual organizations but among the supply chains (Christopher, 2010).

Research embarking on creating effective and efficient supply chain management is becoming a popular theme for contemporary research (Wang, Heng and Chau, 2007). Ballou (2007, p.05) states that supply chain encompasses all activities associated with the flow and transformation of goods from the raw materials stage (extraction), through to the end user, as well as the associated material and information flows both up and down the supply chain. Supply chain management refers to the integration of all these activities, through improved supply chain relationships, to achieve sustainable competitive advantage. Different researchers identify different aspects as components of supply chain management (Mentzer, et al, 2001). However implementation of supply
chain management includes activities of agreed vision and goals, information sharing, risks and rewards sharing, cooperation, process integration, long term relationships and agreed supply chain leadership among the supply chain members (Mentzer, et al., 2001). Supply chain orientation refers to implementation of supply chain management within a focal organization. Previous research argues supply chain orientation as a precondition to supply chain management and as a two different concepts (Min and Mentzer, 2004; Min, Mentzer and Ladd, 2007).

Much research has been conducted on supply chain process, technology and its relationship to the organizational performance and competitiveness in different industries around the world. It was revealed by many researchers that still supply chain management is a mere pipe dream in many countries around the world (Basnet, Corner, Wisner and Tan, 2003; Moberg, Thomas and Thomas, 2003; Bohme, 2009). This may be due to extant researchers’ less focus on the real barriers to the supply chain management and human impact on supply chain orientation and supply chain management (McAfee, Glassman and Honeycut, 2002; Gowen and Tallon, 2003; Fawcett, Magnan and McCarter, 2008).

Supply chain management is a human centric philosophy (Myers, Griffith, Daugherty and Lusch, 2004). Graham (2011) has found out that the human resources and supply chain management have a natural link. Competent human resources base is considered as a sustainable means to achieve competitive advantage as it is difficult to imitate by others (Optaha, 2009). According to Barney, Wright and Ketchen (2001) sustainable competitive advantage can be derived from resources and capabilities of a firm that are valuable, rare, imperfectly imitable and not substitutable. Human resource practices trigger competent human resources base and their capability enhancements
continuously. Human capabilities in nature are valuable, rare, imperfectly imitable and not substitutable.

Early theorists have found that a certain mix of human resource management practices would lead to high performance of the organizations over other human resource practices (Lee and Kim, 2010). Based on the universalistic perspective that a certain set of human resource practices will always lead to higher performance regardless of the contexts (Kalleberg, 2000 cited in Lee and Kim, 2010). Those effective human resource practices are interchangeably referred to as high performance human resource practices, commitment based human resource practices (Lee and Kim, 2010), relationship based human resource practices (Deadrick, McAfee and Glassman, 1997; McAfee, Glassman and Honeycut, 2002; Gowen and Tallon, 2003; Shub and Stonebraker, 2009) and innovative human resource practices (Som, 2007) within organizational and supply chain phenomena. Human resource management practices affect the attraction and retention of competent, qualified human resources to an organization.

Relationship based human resource management practices refer to a combination of human resource practices that are focusing on creating a long term trusted employee base (Deadrick, McAfee and Glassman, 1997; Shub and Stonebraker, 2009). Researchers have found out that relationship based human resource management practices are having positive relationship with supply chain orientation and supply chain management (Deadrick, McAfee and Glassman, 1997; McAfee, Glassman and Honeycut, 2002; Gowen and Tallon, 2003; Shub and Stonebraker, 2009).

The existing theoretical and empirical knowledge suggests that there is positive relationships between the relationship based human resource management practices on supply chain orientation and also supply chain orientation on supply chain management.