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A CONCEPTUAL FRAMEWORK FOR UNDERSTANDING AND MEASURING B2B ONLINE SERVICE QUALITY

A thesis submitted in fulfilment of the requirements for the award of the degree

DOCTOR OF PHILOSOPHY

From

UNIVERSITY OF WOLLONGONG

By

LOIS ANN BURGESS BInfotech, Hons (*UOW*)

School of Information Technology and Computer Science

2006

Declaration

The work presented in this thesis is the original work of the author except as acknowledged in the text. I hereby declare that I have not submitted any of the material presented in this thesis for a degree at this or any other institution.

Lois Ann Burgess

27 November 2006

Dedication

This thesis is dedicated to my children James and Madison for their love, unfailing support and understanding. To my mother, for her constant encouragement even thorough her own adversity. To the memory of my late father, Herbert Burgess (1916-1989) and sister, Donna Phillips (1956-1994) who continue to guide me towards my life goals. Finally, to my mother's cousin, Professor Allan Wilson, whose unfailing dedication to scientific research inspired me to undertake this journey.

Table of Contents

Page

Declaration……..ii

Dedication……...iii

List of Figures…….ix

List of Tables……..x

Abstract……...xi

Acknowledgements……....xiii

Publications……....xiv

Chapter 1 – Introduction…….1

1.1 Background to the Research……1

1.2 Motivation for the Study…….....2

1.2.1 Justification for B2B Research……..…….4

1.3 Aim of the Research…….……...6

1.4 Definition of Key Terminology……..…….8

1.5 Structure of the Thesis……...…….....9

Chapter 2 – Customer Service Evolution……..12

2.1 Introduction……..12

2.2 A Changing Service Landscape……...12

2.3 Customer Service on the Web…….16

2.3.1 Advantages……18

2.3.2 Shortfalls……19

2.4 Customer Value Considerations……..…19

2.4.1 Customer Acquisition……20

2.4.2 Customer Purchase Support……...21

2.4.3 Customer Fulfillment…….22

2.4.4 Customer Continuance and Support……..22

2.5 B2B Service on the Web……23

Page

2.6 Online Service Design and Delivery……...30
2.6.1 Elements of Design…….28
2.6.2 Elements of Delivery…… …….29
2.6.3 Additional Design Considerations……..30
2.7 Summary……..36

Chapter 3 - Determinants and Measurement of Online Service Quality……....37

3.1 Introduction……...37
3.2 Traditional Service Quality……...37
3.3 Service Quality Research in Business Markets……40
3.4. Online Service Quality Measurement……..42
3.5 Summary……...70

Chapter 4 - Research Design and Methodology……71
4.1 Introduction…….....71
4.2 Research Approach……..71
4.2.1 Knowledge Claim Position of the Research……...72
4.2.2 Strategy of Inquiry……..73
4.3 Research Design……..75
4.3.1 Time Dimension…….....76
4.3.2 Unit of Analysis……77
4.3.3 Sampling Strategy……..78
4.3.3.1 Phase I……78
4.3.3.2 Phase II……...79
4.3.4 Data Analysis Strategy……...79
4.4 Phase I Procedure……....81
4.4.1 Exploratory Research……81
4.4.2 Literature Survey……....81
4.4.3 Data Collection Procedure……..82
4.4.4 Interview Format……....83
4.4.5 Data Analysis Technique……...84

Page

4.5 Phase II Procedure……..……86
4.5.1 Confirmatory Research……..……86
4.5.2 Measurement Instrument……..…….....86
4.5.2.1 Step One - Specify Domain of the Construct…….87
4.5.2.2 Step Two - Generate a Sample of Candidate Items……....88
4.5.2.3 Step Three – Collect Data and Purify Measure……..89
4.5.2.4 Step Four - Assess Reliability…….....91
4.5.2.5 Step Five – Assess Validity……....91
4.5.2.6 Step Six – Develop Norms…….92
4.5.2.6.1 Scale Format……....92

4.6 Data Analysis Technique……93
4.6.1 Scale Reliability and Validity……93
4.6.1.1 Reliability……93
4.6.1.2 Validity……...94
4.7 Summary…….96

Chapter 5 - Phase I: Exploratory Research…….98
5.1 Introduction……....98
5.2 Interview Procedure……...99
5.2.1 Data Collection Instrument……...100
5.2.2 Format of the Interviews……..101
5.3 Data Processing Procedure……...102
5.3.1 Step One: Edit Data……103
5.3.2 Step Two: Analyse and Code Data……..103
5.4 Results from the Interviews……..106
5.4.1 Participant Profiles……...106
5.4.2 Meaning of Online Customer Service……..107
5.4.3 Meaning of Online Service Quality……108
5.4.4 Customer Evaluations of Online Service Quality……109
5.5 Theoretical Foundation……110

Page

5.5.1 Web Quality…….111
5.5.2 Information Quality……..112
5.5.3 Service Quality……..112
5.6 B2B Online Service Quality Perceptual Attributes……113
5.6.1 Website Design……..114
5.6.2 Ease of Use……115
5.6.3 Technical Reliability…….115
5.6.4 Usefulness……..116
5.6.5 Intuitiveness……...116
5.6.6 Presentation……...117
5.6.7 Accuracy……...117
5.6.8 Availability……..117
5.6.9 Service Reliability……....118
5.6.10 Flexibility……...119
5.7 OLSQ Elements……....119
5.8 Conceptual Model…….121
5.8.1 User Perspective……..122
5.8.2 Service Provider Perspective……...123
5.9 Summary……...125

Chapter 6 - Phase II: Confirmatory Research…….……..126
6.1 Introduction…….126
6.2 Development and Refinement of the OLSQ Scale…….....126
6.2.1 Step 1: Definition and Domain of Online Service Quality…….127
6.2.2 Step 2: Development and Refinement of the Preliminary Scale……131
6.2.3 Step 3: Items Administered to a Representative Sample of Subjects…133
6.2.4 Step 4: Data Analysis and Scale Reduction……...135
6.2.5 Step 5: Reliability and Validity Assessment……..139
6.2.5.1 Model Fit Assessment……148
6.3 Summary…….151

Page

Chapter 7 - Discussion and Conclusions…….....153

7.1 Introduction……...……153

7.2 Phase I Results……..154

7.3 Phase II Results…….157

7.4 Main Findings from the Research…….160

7.4.1 Determinants, Dimensionality and Measurement of B2B Online Service Quality ……161

7.4.2 Implications for Providers……163

7.5 Limitations of the Research……...166

7.6 Contributions of the Research……...167

7.5.1 Theoretical Contributions…….167

7.5.2 Contribution to Practice……168

7.6 Suggestions for Future Research……169

Bibliography…….. 173

Appendices

List of Figures

Page

Figure 1.1 Scope of Online Customer Service……4

Figure 1.2 Literature Synthesis Diagram……7

Figure 1.3 Structure of the Thesis……...9

Figure 2.1 Customer Service Evolution…….15

Figure 2.2 Online Service Value Chain…….……20

Figure 2.3 Design and Delivery Elements of Online Service……29

Figure 4.1 Research Design……...76

Figure 4.2 Scale Development Procedure…….87

Figure 5.1 Data Processing Procedure.. ……...102

Figure 5.2 Data Analysis and Coding Process……..104

Figure 5.3 Higher-level Construct and Dimensions Perceived B2B OLSQ…….110

Figure 5.4 Conceptual Model of B2B Online Service Quality…….122

Figure 6.1 Scale Development Process…….126

Figure 6.2 Domain and Consequences of B2B OLSQ……..130

Figure 6.3 One and Two Factor Model Structures……....141

Figure 7.1 Conceptual Model of B2B OLSQ……155

List of Tables

Page

Table 3.1 Illustrative OLSQ Studies…….....44

Table 4.1 Quantitative, Qualitative and Mixed Methods Procedures…….74

Table 4.2 Classification of Alternative Mixed Methods Data
Analysis Strategies……..80

Table 5.1 Industry Sectors Represented…….100

Table 5.2 OCSS Experience……...100

Table 5.3 Participant Profiles…….106

Table 5.4 Attributes of B2B OLSQ…….…….....114

Table 5.5 B2B OLSQ Perceptual Attributes, Elements and Selective
Illustrative Quotes…….120

Table 6.1 Total Variance Explained……..……137

Table 6.2 Item Factor Loadings…….138

Table 6.3 Fit Assessment Results……..148

Table 7.1 OLSQ Scale Items…….160

Abstract

As more and more businesses move online, research into the determinants and measurement of online service quality has become a research imperative (Zeithaml *et al.*, 2000; Bitner, Parasuraman *et al.*, 2005). Notwithstanding, research in this area is still in its infancy and much of the existing research is largely anecdotal, centering on consumer perceptions and ignoring the business customer perspective. As a result, to date, limited insights have been gained. This study represents a first attempt at addressing this gap in the scholarly literature.

A two-phase study design was used to 1) explore the meaning of B2B online service quality, 2) identify its key determinants and 3) develop a valid and reliable measure for the construct.

In Phase I of the study, 16 in-depth interviews with business customers from a range of industry sectors were conducted. Results revealed that business customers expect online service levels at least equal to that provided in offline service environments. The results also revealed that business customer's assessment of online service quality is formed across ten key determinants: Website Design, Ease of Use, Technical Reliability, Usefulness, Intuitiveness, Presentation, Accuracy, Availability, Service Reliability and Flexibility.

In Phase II of the study, a measure of online service quality (OLSQ scale) was developed and empirically tested and validated from data collected from 699 customers of a large Australian corporate supplier. Items included in the measure were derived from the Phase I interviews and refined through an expert review

process. Two plausible measurement models were then specified and data-model fit of each of the models examined. A second-order factor structure, comprising three dimensions, Service Quality, Web Quality and Technical Quality, consisting of 20 items was derived from the evaluation. Validity and reliability of the measure were then assessed and confirmed. Collectively, the results provide support for the soundness of the measure's factor structure and its psychometric properties.

The attributes of OLSQ identified in this study provide a starting point on which providers can base the development of their online service strategy and modifications to strategy as customer needs and expectations change over time. In order to do this, providers need a valid and reliable instrument to gather information about customer service requirements and indicators of the quality of their online service offering as perceived by customers. It is envisaged that the OLSQ measure will also act as a diagnostic tool, assisting providers in pinpointing weaknesses in their online service strategy, enabling them to take corrective action where necessary. The results of this study also provide a starting point from which providers can base future research into the determinants and measurement of B2B online service quality.

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Publications

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Burgess, L., Alcock , C and Joan Cooper (2003) “Towards a conceptual framework for understanding online service quality (OLSQ) in Business to Business Trade” E-Business Review Vol 3.

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