WORD-OF-MOUTH PROCESSING AND HIGHER EDUCATION CHOICE FACTORS

A thesis submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy

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Declaration

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

Tri Dinh Minh LE
Melbourne, April 2018
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Preface

This thesis is presented in partial fulfilment of the requirements for the degree of Doctor of Philosophy at the College of Business, RMIT University. It includes five scientific papers which have been submitted and are currently under review or accepted for publication in targeted journals. These papers comprise one conceptual paper and four empirical papers. The five papers report studies on two related themes: (1) word-of-mouth processing, examined in the higher education context; and (2) higher education choice factors, and the delivery of the choice factor information in word-of-mouth communication.

The candidate is the lead author on all the five papers. The candidate developed the first drafts and has contributed more than 80% of the content of these papers. The candidate was solely responsible for the initial ideas, research design, execution, and data analyses of the studies, and was primarily responsible for the preparation of the manuscripts for publication. The contributions of the co-authors, Associate Professor Angela R. Dobele and Dr Linda J. Robinson, include discussions on research design, coding support, the confirmation of data analyses, and revisions of the manuscripts. At the submission date of this thesis, the status of these five papers is listed as follows:

- **Paper 1 (Chapter 4):** This conceptual paper provides a comprehensive review of literature in word-of-mouth (WOM) research, to categorise the factors that influence WOM effectiveness and the development of the WOM Processing Framework. The framework and propositions suggest the avenues for future research. This paper was submitted to *Journal of Marketing Management* (ABDC ranked A) and is currently under review.

- **Paper 2 (Chapter 5):** This empirical paper presents an investigation on the relationship between source characteristics and message quality within WOM processing, as well as the mediating effects of message quality on the effects of each source characteristic. This paper has been accepted for publication in *Marketing Intelligence and Planning* (ABDC ranked A).
• **Paper 3 (Chapter 6):** This empirical paper further investigates the information processing routes within WOM processing, involving the factors of active WOM seeking, message quality and two source characteristics. It examines direct effects and serial mediation models to explore the underlying causal chains of WOM processing. This paper was submitted to *Journal of Business Research* (ABDC ranked A) and is currently under review.

• **Paper 4 (Chapter 7):** This empirical paper reports a segmentation analysis on the importance of choice factors and the usage of information sources of higher education consumers, as well as how the choice factors are discussed in WOM communication across segments. This paper was submitted to *Higher Education Research & Development* and is currently under review.

• **Paper 5 (Chapter 8):** This empirical paper presents a content analysis to explore the choice factors information that higher education consumers seek from social media electronic word-of-mouth (eWOM). This paper was submitted to *Journal of Higher Education Policy and Management* and is currently under the second round of review.

During the PhD candidature, preliminary insights and research results were presented at double blind reviewed conferences in Australia, New Zealand and the United States. The full list of research outputs, including the submitted journal papers and the conference papers, is presented on the following page.

Finally, an extract from the analysis of the extant WOM literature formed the background for the development of a publication on WOM information flow and online engagement. The candidate is the sole author and this paper has been published in *Online Information Review* 42(2). This paper is not included in this thesis but its existence is acknowledged.
Research Outputs and Grants

Author Name: Tri D. Le

Accepted:


Le, T., Dobele, A. & Robinson, L. 2016, ‘Electronic Word-of-Mouth Seeking Behaviour: What are the choice factors most discussed by prospective students on social media?’, paper presented to Australian and New Zealand Marketing Academy Conference, Christchurch, New Zealand.

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Higher Degree by Research Travel Grant (HDRTG), by RMIT University, 2016
Abstract

The importance of word-of-mouth (WOM) communication in the information search and decision-making process of consumers has been well established in the marketing literature. However, there are two areas to this type of communication that are rarely considered: the nature of WOM processing from the receiver perspective; and WOM seeking behaviours in a particular context. In this regard, higher education is an increasingly competitive service in which prospective consumers are highly engaged in the decision-making process and rely on WOM information to evaluate a large number of attributes they may have not considered before and may, therefore, be unfamiliar with.

This doctoral project conducts a series of research studies related to two associated themes: first, investigating the factors of WOM processing from the receiver perspective, using empirical studies situated in the higher education context; and second, analysing choice factors and how choice factor information is delivered through WOM. This research series is reported in five journal papers which are presented as chapters in this thesis.

A holistic approach was developed to cover the research areas. For the first theme, a conceptualisation of WOM factors for WOM processing is presented (Paper 1). This conceptualisation highlights the factors that result in WOM influence on consumers, and presents the development of the WOM Processing Framework, to illustrate the interrelationships among factors. The WOM Processing Framework includes six main groups of factors: source characteristics, receiver characteristics, message characteristics, situational factors, channel characteristics, and enduring involvement. The propositions of this framework suggest avenues for future research.

From this conceptualisation, two empirical studies follow to examine the relationships between source characteristics and message judgement, as well as their impacts on WOM influence. Paper 2 focuses on the impacts of primary characteristics of WOM sources on message quality and the mediation of message quality. Paper 3 focuses on exploring the processing routes within WOM processing, from the task involvement
and active WOM seeking behaviour. Data were collected from prospective university students (currently attending high school), and were analysed using structural equation modelling techniques.

The second theme is comprised of two empirical studies that analyse choice factors and how information is delivered by WOM. Paper 4 presents a segmentation analysis on the importance of choice factors. The data were collected by questionnaire surveys to explore the choice factors across different student segments. Paper 5 presents a content analysis of data collected from online communities to reveal the information required regarding choice factors from social media electronic word-of-mouth (eWOM).

This thesis develops a rich theoretical and empirical understanding of WOM processing and a practical view on WOM within the higher education context. Theoretically, the conceptualisation provides a comprehensive framework which highlights factors of WOM processing and their mutual relationships. The empirical studies contribute to WOM literature by examining relationships which have been rarely tested in WOM research, as well as contributing to the application of the Elaboration Likelihood Model (ELM) by identifying the links between the processing routes in WOM processing. The analyses of choice factors and information sought from WOM contribute to literature on higher education. Practically, this thesis provides a number of implications for practitioners, from understanding the factors of WOM processing to insights into prospective students’ information search, which are helpful for university marketing practice.

**Keywords:** word-of-mouth processing, higher education choice, receiver perspective, prospective students, choice factors, credence services, ELM
Table of Contents

Declaration .................................................................................................................. iii
Acknowledgements ................................................................................................. iv
Preface ..................................................................................................................... vi
Research Outputs and Grants................................................................................ viii
Abstract .................................................................................................................. x
Table of Contents .................................................................................................... xii
List of Figures ......................................................................................................... xix
List of Tables .......................................................................................................... xx
List of Abbreviations .............................................................................................. xxii

Chapter 1: Introduction ............................................................................................ 1
1.1 Research Background and Motivations............................................................ 1
1.2 Research Questions............................................................................................ 3
  1.2.1 WOM information processing ...................................................................... 3
  1.2.2 Choice factors and information sought from WOM ..................................... 4
1.3 Research Approach .......................................................................................... 5
  1.3.1 Summary of methodological approaches ...................................................... 6
  1.3.2 Development of each paper ......................................................................... 7
1.4 Research Contribution ....................................................................................... 9
  1.4.1 Theoretical contributions ............................................................................ 9
  1.4.2 Practical implications ............................................................................... 11
1.5 Thesis Structure ................................................................................................ 11
Chapter 2: Broader Theoretical Background ................................................................. 13
  2.1 Introduction............................................................................................................ 13
  2.2 Supporting Broader Literature .............................................................................. 15
    2.2.1 Broader theory 1: Communication ................................................................. 15
    2.2.2 Broader theory 2: Elaboration likelihood model of persuasion..................... 18
    2.2.3 Broader theory 3: Services marketing............................................................. 21
  2.3 Background of Word-of-Mouth Research ............................................................ 25
    2.3.1 Introduction to WOM communication .......................................................... 25
    2.3.2 Defining WOM communication ...................................................................... 27
    2.3.3 WOM phenomena in marketing ...................................................................... 30
    2.3.4 Two perspectives on WOM research............................................................... 33
    2.3.5 Research theme 1: WOM information processing applying ELM theory.... 36
  2.4 Background of Higher Education Choice Research .............................................. 38
    2.4.1 Introduction to higher education marketing .................................................. 38
    2.4.2 The decision-making process of prospective students ................................. 40
    2.4.3 Research theme 2: Choice factors of prospective students, and WOM usage .......................................................... 42
  2.5 Chapter Summary .................................................................................................. 44

Chapter 3: Methodology .............................................................................................. 46
  3.1 Introduction............................................................................................................ 46
  3.2 Research Paradigm............................................................................................... 46
  3.3 Research Design................................................................................................... 48
    3.3.1 Method 1 (for Paper 5): Content analysis ..................................................... 48
    3.3.2 Method 2 (for Papers 2, 3 and 4): Cross-sectional survey ............................ 48
  3.4 Ethical Consideration............................................................................................ 49
4.8 Conclusion .......................................................................................................................... 96

Chapter 5: Paper 2 .................................................................................................................. 97

Abstract .................................................................................................................................. 97

5.1 Introduction ......................................................................................................................... 99

5.2 Theoretical Foundations ..................................................................................................... 100

5.3 Conceptual Model and Hypothesis Development ............................................................. 102

5.3.1 Message quality and WOM influence ........................................................................ 102

5.3.2 The effects of source characteristics on message quality .......................................... 103

5.3.3 Mediating roles of message quality ........................................................................... 105

5.3.4 Moderating roles of task involvement and valence .................................................... 106

5.4 Method ............................................................................................................................... 108

5.4.1 Sample and data collection ....................................................................................... 108

5.4.2 Measures and pretest .................................................................................................. 109

5.5 Data Analysis and Results ............................................................................................... 110

5.6 Discussion ......................................................................................................................... 115

5.7 Implications for Theory and Practice ............................................................................. 117

5.8 Limitations and Future Research ..................................................................................... 119

Chapter 6: Paper 3 .................................................................................................................. 121

Abstract .................................................................................................................................. 121

6.1 Introduction ......................................................................................................................... 122

6.2 Theoretical Background .................................................................................................... 124

6.2.1 ELM theory of information processing ..................................................................... 124

6.2.2 WOM constructs: active seeking and WOM influence ............................................. 125

6.3 Research Model and Hypotheses ....................................................................................... 126
6.3.1 Active WOM seeking and task involvement ..................................................126
6.3.2 Active WOM seeking and message characteristics .......................................127
6.3.3 Active WOM seeking and source characteristics ..........................................128
6.3.4 Serial mediation effects ..................................................................................130
6.4 Method..................................................................................................................131
6.4.1 Sample and data collection .............................................................................131
6.4.2 Measures and analysis procedure .................................................................132
6.5 Results..................................................................................................................132
6.6 Discussion and Conclusion .................................................................................137
6.6.1 Discussion .......................................................................................................137
6.6.2 Theoretical and practical implications .............................................................139
6.6.3 Limitations and future research ......................................................................140
Appendix 6.1: Measurement scale used .................................................................141

Chapter 7: Paper 4 .....................................................................................................143

Abstract .....................................................................................................................143
7.1 Introduction..........................................................................................................144
7.2 The Decision-Making Process of Prospective Students ....................................146
7.3 Reviewing Choice Factors and Information Sources When Selecting University ......................................................................................................................147
7.3.1 Choice factors ...............................................................................................147
7.3.2 Information sources and WOM ...................................................................148
7.4 Method..................................................................................................................149
7.5 Results and Discussions ....................................................................................152
7.5.1 Choice factors and segments .......................................................................152
7.5.2 Information sources and segments ...............................................................155
7.5.3 Information source categorisation ...............................................................156
Chapter 8: Paper 5 ........................................................................................................ 164

Abstract ......................................................................................................................... 164

8.1 Introduction .............................................................................................................. 165

8.2 Literature Review ................................................................................................... 166

8.2.1 The decision-making process .............................................................................. 166

8.2.2 Choice factors when selecting university .......................................................... 167

8.2.3 Electronic word-of-mouth on social media ....................................................... 171

8.3 Method ..................................................................................................................... 172

8.4 Findings and Discussions ....................................................................................... 174

8.4.1 Qualitative findings and discussion ................................................................... 176

8.4.2 Quantitative findings and discussion .................................................................. 179

8.5 Limitations and Further Research ......................................................................... 185

8.6 Conclusions ............................................................................................................. 186

Chapter 9: General Discussion ................................................................................... 187

9.1 Summary of Key Findings ...................................................................................... 187

9.2 Contributions to Theory and Future Research ..................................................... 191

9.3 Implications for Practice ....................................................................................... 194

References .................................................................................................................... 197

Appendices .................................................................................................................... 215
List of Figures

Figure 1.1: Overview of the thesis ................................................................. 7
Figure 2.1: The structure of chapter 2 ......................................................... 14
Figure 2.2: ELM: central and peripheral routes to persuasion ............... 37
Figure 4.1: Comparison of factor categorisations in Sweeney et al.’s (2008) framework and the proposed WOM Processing Framework ........................................ 81
Figure 4.2: The WOM Processing Framework (receiver’s perspective) .......... 89
Figure 5.1: Conceptual model ................................................................. 107
Figure 5.2: The moderating effect of Involvement .................................. 113
Figure 5.3: The moderating effect of Valence ........................................ 114
Figure 6.1: Research model ................................................................. 130
List of Tables

Table 1.1: The development for each paper of this thesis.................................................8
Table 3.1: Comparing and contrasting three types of content........................................51
Table 3.2: Selected topics in Quora ................................................................................57
Table 3.3: Categories of choice factors used for content analysis ..............................60
Table 3.4: Measurement scale items...............................................................................63
Table 3.5: Structure of the questionnaire.......................................................................66
Table 3.6: Goodness-of-fit criteria..................................................................................72
Table 4.1: WOM processing factors ...............................................................................83
Table 4.2: Propositions in the WOM Processing Framework .......................................90
Table 5.1: Results of the measurement model assessment .........................................110
Table 5.2: Results of structural model..........................................................................112
Table 5.3: Bootstrap test of indirect effects....................................................................115
Table 6.1: Correlations and model fit indices..............................................................133
Table 6.2: Results of structural model..........................................................................134
Table 6.3: Bootstrap test of serial mediation effects.....................................................136
Table 7.1: The importance of choice factors across segments.................................153
Table 7.2: The importance of information sources across segments .......................156
Table 7.3: Types of information sources.......................................................................157
Table 7.4: The frequency of choice factors information discussed in WOM across each group.................................................................159
Table 8.1: Choice factors of prospects when selecting a university .........................169
Table 8.2: Examples of questions regarding each choice factor ...............................174
Table 8.3: Frequencies and sum of ratings of information sought regarding each choice factor.............................................................................................................181
Table 8.4: Frequency of information sought regarding each choice factor of different segments ...........................................................................................................182
# List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>AMOS</td>
<td>Analysis of Moment Structures</td>
</tr>
<tr>
<td>AVE</td>
<td>Average variance extracted</td>
</tr>
<tr>
<td>CFA</td>
<td>Confirmatory factor analysis</td>
</tr>
<tr>
<td>CFI</td>
<td>Comparative fit index</td>
</tr>
<tr>
<td>df</td>
<td>Degrees of freedom</td>
</tr>
<tr>
<td>EFA</td>
<td>Exploratory factor analysis</td>
</tr>
<tr>
<td>ELM</td>
<td>Elaboration likelihood model</td>
</tr>
<tr>
<td>NFI</td>
<td>Normed fit index</td>
</tr>
<tr>
<td>p</td>
<td>p-value significance level</td>
</tr>
<tr>
<td>RMSEA</td>
<td>Root mean-square error of approximation</td>
</tr>
<tr>
<td>SD</td>
<td>Standard deviation</td>
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<tr>
<td>SEM</td>
<td>Structural equation modelling</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
</tr>
<tr>
<td>TLI</td>
<td>Tucker-Lewis index</td>
</tr>
<tr>
<td>WOM</td>
<td>Word-of-mouth</td>
</tr>
<tr>
<td>eWOM</td>
<td>Electronic word-of-mouth</td>
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Chapter 1: Introduction

1.1 Research Background and Motivations

Consumers and prospective consumers use personal or non-commercial referral sources, including friends and family members, as opinion leaders. Such referrals provide touchpoints for evaluating products and services and aid purchase decisions. Consumers ask their friends for a good restaurant for their special dinners. International tourists search suggestions in online travel communities to choose travel destinations and refer to the ratings on the hotel hubs to book accommodation. Consumers read reviews before buying any products or services (e.g. book, health care service, or movie). Prospective students discuss the information regarding potential universities with their parents or seek advice from teachers and school advisors when making the decision about which university to attend. Prospective students seek information regarding potential universities on social media. All of the above behaviours are examples of information acquisition from word-of-mouth (hereafter, WOM) sources.

Because of its importance and popularity, WOM is considered one of the most powerful forces in the market (Bansal & Voyer 2000). The academic community has investigated this communication type through various aspects and contexts (e.g. WOM intention or adoption, in both product and service contexts), in both traditional WOM and electronic word-of-mouth (eWOM) – WOM in digital channels. These prior investigations can be classified into two perspectives: source and receiver; each providing different insights into aspects of WOM communication.

Research from the source perspective examines WOM generating and WOM sharing behaviours (e.g. Anderson 1998; Chawdhary & Dall’Olmo Riley 2015). Research from the receiver perspective focuses on information processing when consumers receive the WOM messages and the outcomes from the WOM information (e.g. Martin & Lueg 2013; Voyer & Ranaweera 2015). Both perspectives are significant for marketers and
practitioners to understand the nature of WOM phenomena and to develop communication strategies which can stimulate WOM flow of sharing and transmission.

However, a review of the literature reveals the need for further investigation from the receiver perspective. What is lacking from this view is a comprehensive framework supported by communication theories to illustrate the factors of WOM information processing by receivers. Moreover, there is also the need to examine the relationships of such factors to extend our understandings on how consumers adopt the WOM messages. In the modern consumer market, media and communication channels are diversified as never before (Libai et al. 2010); and, as a result, understanding WOM information processing is increasingly important. Deeper understandings are needed by marketing practitioners to make better selections for WOM marketing initiatives, for example customising messages and choosing suitable sources for viral campaigns (Buttle & Groeger 2017). Thus, the first major research component of this thesis focuses on WOM information processing.

The higher education industry was selected as the context for this research. This industry is appropriate due to the high engagement of prospective students in their decision marking processes (Moogan et al. 1999; Walsh et al. 2015). Often, prospective students will seek or be exposed to multiple sources of WOM during their information search and evaluation stages (Teo & Soutar 2012). This sector provides availability and flexibility to examine and measure multiple factors of WOM processing in empirical analyses.

Therefore, the second research theme of this thesis is to investigate the WOM usage and choice factors of prospective students in higher education choice and decision making. There is a lack of knowledge of WOM usage and student decision-making processes (Hemsley-Brown & Oplatka 2006). This is a deficiency, because WOM is an important information source for students (Briggs & Wilson 2007; Moogan et al. 1999); and especially, eWOM has recently become a popular communication channel for prospective international students (Galan et al. 2015; Hayes et al. 2009). By identifying WOM usage patterns and valued choice factors, university managers and marketers can more directly align their recruitment strategies and communication messages.
The second part of this research focuses on analysing prospective students’ choice factors as delivered in WOM messages. Such research will enable a clearer understanding of the nature of WOM communication in the higher education context and provide insights for this influential form of marketing communication. The aim of this research is to expand the contribution to the practical implications in the higher education sector.

1.2 Research Questions

The previous section introduces two themes of the thesis: first, by investigating the factors of WOM processing from the receiver perspective; and second, by analysing the choice factors and choice factor information prospective students seek from WOM. This thesis follows the paper-based chapter format, with each research question investigated by a separate study and reported as a publishable paper. Thus, the overall structure of this thesis comprises a mix of regular thesis chapters and the papers. The following sections present the five research questions for the five studies of this doctoral thesis.

1.2.1 WOM information processing

Previous research predominately focused on the generation of WOM (e.g. Anderson 1998; Babin et al. 2005; Harrison-Walker 2001; Sivadas & Jindal 2017). However, there is little understanding from the receiver perspective, such as the roles of communication elements within WOM processing, and how the WOM processing changes attitude and behaviour of consumers (Martin & Lueg 2013; Sweeney et al. 2008). Furthermore, most existing WOM research has investigated the single impact of particular mechanisms, but not their mutual relationships (Bansal & Voyer 2000; Martin & Lueg 2013). Consequently, this research question and the first study have sought to identify the factors and flow within WOM information processing, namely:

**Research Question 1:** What are the factors of WOM information processing and the interrelationships among them from the receiver perspective?
To address Research Question 1, a conceptualisation of WOM from the receiver perspective is developed and presented in Paper 1 (see Chapter 4). In this conceptualisation, six groups of factors are categorised, and a comprehensive framework is developed to demonstrate the interrelationships among the factors. The framework and propositions highlight two areas that should be further examined: the impact of WOM source characteristics on message judgement; and the WOM processing routes when consumers receive WOM messages.

Source and message characteristics are two elements of communication (Hovland 1948) which are popularly considered the factors influencing WOM effectiveness (Cheung & Thadani 2012). However, less attention has been paid to investigating how the perception of receivers towards WOM sources could shape their judgement of message content, and whether the message judgement mediates the effect of WOM sources. Thus, the Research Question 2 is as follows:

**Research Question 2:** To what extent does the receiver’s perception of the source influence their judgement of the WOM message and indirectly affect WOM effectiveness?

WOM factors such as source, message and involvement have been independently and separately investigated in previous research. What is lacking is an overall or holistic view of these factors; thus, this investigation has sought to understand the WOM processing process through an investigation of both source and message. This investigation also includes processes of the receiver’s information processing, through consideration of the multiple factors by which such processing can occur (Kang & Herr 2006; Petty et al. 1983). Therefore, Research Question 3 is as follows:

**Research Question 3:** What are the processing routes occurring and their factors within WOM information processing?

1.2.2 Choice factors and information sought from WOM

In the context of higher education, previous research has considered prospective students’ preferred choice factors when selecting a university (Hemsley-Brown & Oplatka 2015). Despite a wide range of identified choice factors, few studies have
revealed changes in preferences for particular choice factors in different communication channels (especially the increasingly important social media channels). Specifically, there is no research that has explored this topic in light of WOM communication, to understand information requirements in WOM seeking behaviour of students. Such a gap is important, because such communication is considered an effective communication source during prospective students’ decision-making process (Moogan et al. 1999), as well as more broadly for consumers of services (Bansal & Voyer 2000).

The following research questions address two increasingly significant topics: segmentation and social media. First, while segmentation is an important topic in higher education marketing (Constantinides & Zinck Stagno 2011), it is now more significant because the higher education market is more diversified, global and competitive. As a result, market segments (such as local and international, undergraduate and postgraduate) play an important role in developing student recruitment strategies. Second, there is a trending topic of eWOM seeking behaviour by consumers and prospective consumers which is enabled and encouraged through social media channels. This social media topic is meaningful in WOM and higher education research because prospective students are, in general, at the age of the millennial generation, who are described as both media savvy and technologically dependent (Hayes et al. 2009; Mangold & Smith 2012). Therefore, the Research Questions for these topics are proposed as follows:

**Research Question 4:** Do student segments consider different choice factors and seek different choice factor information from WOM?

**Research Question 5:** What choice factors do prospective students seek from social media eWOM during the decision-making process?

1.3 Research Approach

The research questions were addressed consecutively by conducting separate studies, addressing the call of each topic, and are reported as separate papers. Each paper was developed independently and served as a basis for future publications with an holistic
connection to each other through their focus on the higher education context and overall WOM processing. Paper 2 and Paper 3 are built on the propositions and gaps identified in Paper 1. Papers 4 and 5 are built from a thorough analysis of the choice factors of prospective students and WOM seeking behaviour, before branding into two different, but connected, lines of enquiry. Figure 1.1 illustrates the holistic view of the thesis through the allocation of studies and methods based on the research questions.

1.3.1 Summary of methodological approaches

Paper 1 conducts a literature review to conceptualise WOM processing and presents propositions for further research. Following the conceptualisation, two data collection methods were conducted in the empirical analyses: questionnaire survey and content analysis. The details of these methods are presented in Chapter 3: Methodology.

**Literature Review**: A literature review was undertaken throughout this research. The results of the review of extant literature formed the basis of the first paper, a conceptual piece which developed the overall framework for deeper understanding of the factors of WOM processing. Literature reviews in each paper followed to provide theoretical foundations and an understanding of the current situation regarding the specific research questions. Preliminary analysis sought to categorise these factors into groups for framework development. The Elaboration Likelihood Model (ELM) was reviewed and utilised as the theory foundation for the conceptualisation. The introduction of ELM theory is presented in Chapter 2: Broader Theoretical Background.

**Questionnaire Survey**: A self-administered survey formed the main method of this thesis and was used in the studies presented in Papers 2, 3 and 4 (see Figure 1.1). The sample comprised high school students and was conducted in two stages. In stage 1, an invitation to participate in an online questionnaire survey was distributed to high school students who attended university open days in Victoria, specifically at RMIT University, University of Melbourne, La Trobe University and Victoria University. In stage 2, self-administered paper questionnaires were distributed to three high schools in Ho Chi Minh City, Vietnam, specifically at Nguyen Thi Minh Khai high school, Trung Vuong
high school and Tran Dai Nghia high school. The development and design of this research method are presented in Chapter 3: Methodology.

Content Analysis: The content analysis applied for Paper 5 (see Figure 1.1) was conducted to collect data from social media eWOM. The questions related to universities posted on Quora, a social question-and-answer site, were collected in February 2016. Although observing WOM conversations is the main difficulty of data collection for research on WOM, the content analysis of online content could overcome this problem. The data from actual online conversations were used to reveal the information sought, addressing the fifth research question.

Figure 1.1: Overview of the thesis

1.3.2 Development of each paper

At the time of submission of this thesis, all papers have been completed and submitted to targeted journals for consideration for publication. In this section, a detailed summary of the data collection and publication plan is presented for each paper. This plan also includes publication of preliminary insights at double-blind reviewed conferences in order to test the research and seek feedback at appropriate points during
data collection and analysis, prior to sending the manuscripts to academic journals. The overall research publication plan is presented in Table 1.1:

- Paper 1 presents a conceptualisation of the current field of knowledge with regard to WOM and information processing. This paper critically reviews the literature and provides the solid background required for the empirical research which followed. Preliminary insights from this conceptualisation were double-blind reviewed and accepted for presentation to the Australian and New Zealand Marketing Academy Conference (ANZMAC) 2015.

- The content analysis was used as the data collection method for Paper 5, which sought to investigate the WOM seeking behaviours regarding choice factors on social media. Data were collected in February 2016, and initial insights were presented at ANZMAC 2016 (double-blind peer review).

- For Papers 2, 3 and 4, the survey data collection was conducted in two stages. The first stage was in Australia during July – September 2016, and the second stage was in Vietnam during November 2016. Initial insights related to Paper 2 were presented at the Summer AMA Conference 2017 (double-blind reviewed) and for Paper 3 at ANZMAC 2017. Feedback from these presentations was then incorporated into the research, and the papers were refined for submission to the targeted journals.

Table 1.1: The development for each paper of this thesis

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Methods &amp; Data Collection</th>
<th>Conference (related)</th>
<th>Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RQ1</strong>: What are the factors of WOM information processing and the interrelationships among them from the receiver perspective?</td>
<td>Literature Review</td>
<td>ANZMAC Dec 2015</td>
<td><strong>Paper 1</strong>: The WOM Processing Framework: a revised conceptualisation Status: Under review in <em>Journal of Marketing Management</em></td>
</tr>
<tr>
<td><strong>RQ2</strong>: To what extent does the receiver's perception of the source influence their</td>
<td>Survey Nov 2016</td>
<td>Summer AMA Conference</td>
<td><strong>Paper 2</strong>: WOM source characteristics and message quality: The receiver perspective</td>
</tr>
</tbody>
</table>
judgement of the WOM message and indirectly affect WOM effectiveness?

Aug 2017

Status: Accepted (14 Feb 2018) for publication in *Marketing Intelligence and Planning*

**RQ3:** What are the processing routes occurring and their factors within WOM information processing?

Survey Nov 2016

ANZMAC Dec 2017

**Paper 3:** WOM information processing routes: The mediating role of message and source characteristics

Status: Under review in *Journal of Business Research*

**RQ4:** Do student segments consider different choice factors and seek different choice factor information from WOM?

Survey Stage 1: Jul – Sep 2016

ANZMAC Stage 2: Nov 2016

**Paper 4:** Understanding high school students use of choice factors and word-of-mouth information sources in university selection

Status: Under review in *Higher Education Research & Development*

**RQ5:** What choice factors do prospective students seek from social media eWOM during the decision-making process?

Content Analysis Jan – Mar 2016

ANZMAC Dec 2016

**Paper 5:** Information sought by prospective students from social media eWOM during the university choice process

Status: Under review in *Journal of Higher Education Policy and Management*

### 1.4 Research Contribution

This thesis significantly contributes to the knowledge of WOM information processing and the usage of WOM-based information in higher education choice. In both theoretical and practical aspects, it provides essential findings and recommendations to scientific researchers, university managers and strategic marketers.

#### 1.4.1 Theoretical contributions

This research contributes to the literature concerning WOM and higher education choice, thus bridging the two disciplines of information processing and higher education marketing. Furthermore, the research fits well with the growing interest and increased efforts in WOM research and social media channels.
Specifically, this research contributes to knowledge in six key ways:

(1) It identifies three new factors and categorises six groups of factors of WOM processing, which provides a more detailed and integrated framework for understanding WOM processing. Additional factors identified through this research include situational factors, enduring involvement, and channel characteristics which suit modern communication environments.

(2) The WOM Processing Framework was developed to demonstrate the mutual relationships of factors. Employing ELM theory as the theoretical foundation, the conceptualisation explores the application of ELM theory in the WOM literature. Six propositions from this framework suggest avenues for future research directions.

(3) This research examines the relationships of each of the perceived source characteristics with the judgement of message content, as well as the mediation of message quality on the impacts of source characteristics. The relationship between source and message, which are two traditional factors in the WOM literature, which has not yet been investigated, is now examined.

(4) The processing routes occurring in WOM processing are identified in this research. The findings assert central and peripheral routes as the two processing routes in ELM theory, and the link between these. It also expands our understanding of the relationships among WOM processing factors.

(5) Involvement is a popular concept in marketing, but research has rarely classified the enduring involvement and situation involvement, which can affect differently the information processing. This research investigates their impacts on source and message in light of WOM communication, as well as their indirect effects on WOM influence.

(6) This research explores the WOM usage of prospective students in the higher education choice context. It contributes to the literature on choice factors and WOM seeking behaviour of prospective students, which is of benefit to higher education marketing.
1.4.2 Practical implications

From the perspective of marketers and practitioners, this research contributes to the understanding of a more complete list of critical factors for WOM processing within the decision-making process of consumers. Through this deeper understanding, marketing practitioners can develop and improve their communication strategies. Such refinements could include the development of more targeted and engaging messages to encourage sharing of referral messages by consumers.

Within the context of higher education, this research provides recommendations for universities to gain advantage in a competitive landscape. Armed with a better understanding of how prospective students seek and evaluate WOM messages in relation to their use of choice factors and information-seeking behaviours, university managers and marketing practitioners can more effectively manage and plan for their institutions’ WOM marketing strategy.

1.5 Thesis Structure

This thesis adopts a nine-chapter research structure based on the thesis-by-paper approach as approved by RMIT University.

**Chapter 1 - Introduction:** This chapter provides an overall introduction to this doctoral thesis. It includes the justification for this research topic, the research questions, the approach of the papers, and contributions of the research.

**Chapter 2 - Broader Theoretical Background:** This chapter presents the foundational literature and theoretical background used in the papers. It includes three broader theories of communication, ELM and services marketing, as the foundation for the WOM and higher education marketing literature. Next, literature on WOM and higher education choice is presented, followed by discussion of the two research themes for the present research.

**Chapter 3 - Methodology:** This chapter discusses the research paradigm and methodologies utilised in this thesis. The development of content analysis and survey, two methods of this thesis, are extensively presented in this chapter.
Chapter 4 - Paper 1: This chapter presents the conceptual paper entitled ‘The WOM Processing Framework: a revised conceptualisation’. This paper presents a conceptualisation of factors of WOM information processing and the WOM Processing Framework, with propositions for further research.

Chapter 5 - Paper 2: This chapter presents the empirical paper entitled ‘WOM source characteristics and message quality: The receiver perspective’. It presents an empirical study that investigates the impact of source characteristics on the message quality, and the mediation of message quality.

Chapter 6 - Paper 3: This chapter presents the empirical paper entitled ‘WOM information processing routes: The mediating role of message and source characteristics’. It presents an empirical study that investigates the processing routes of WOM from enduring involvement and active WOM seeking behaviour.

Chapter 7 - Paper 4: This chapter presents the empirical paper entitled ‘Understanding high school students use of choice factors and word-of-mouth information sources in university selection’. It presents the analyses of choice factors and information sources across segments, as well as which choice factors are often discussed in WOM communication across segments.

Chapter 8 - Paper 5: This chapter presents the empirical paper entitled ‘Information sought by prospective students from social media eWOM during the university choice process’. It reports the findings of the content analysis, which explore the information in relation to choice factors that prospective students seek from social media eWOM. The content analysis was conducted based on data from Quora social media.

Chapter 9 - General Discussion: This chapter summarises the general findings from the five papers. The contributions to literature and implications for practice are also discussed within this chapter.
Chapter 2: Broader Theoretical Background

2.1 Introduction

This chapter presents the positioning of this thesis within the literature and the background of the two main areas of investigation: WOM and higher education choice. The discussion of literature in this chapter is classified into three levels, as presented in Figure 2.1.

At the first level, Section 2.2 introduces the broader literature (parent theories) which forms the theoretical foundation of this thesis. This section comprises the theories of communication, Elaboration Likelihood Model (ELM) and services marketing. Section 2.2.1, on communication theory, presents the basics of communication such as elements and models of communication, as well as an overview of the contemporary marketing communication landscape. It identifies the communication factors for the later conceptual development in WOM research. Section 2.2.2 on ELM theory presents an overview of ELM and the two processing routes of ELM. It demonstrates the elaboration continuum influenced by various factors and the two processing routes, usually represented by source and message in WOM research. Section 2.2.3 on services marketing presents a classification of services, the principles of perceived risk, and information sources of services’ consumers. This presentation of the review applies to the higher education sector as a credence service.

The second level is comprised of the main literature in two areas: WOM research and higher education choice research. The third level is included within the discussion of the second level. In there, the research problems are identified and the research themes are pointed out. For WOM literature, Section 2.3 provides an overview of WOM research, including the definition, a summary of WOM research topics, and two perspectives of WOM research. Research theme 1 is presented in Section 2.3.5, to discuss the application of ELM theory to WOM research and identify the research problems which are investigated in Papers 1, 2 and 3. Section 2.4 presents the
competitive landscape of higher education and the university choice process of students. Research theme 2 is presented in Section 2.4.3, which summarises previous findings in choice factors and WOM usage in the higher education choice context. The related research problems are identified and investigated in Papers 4 and 5.

**Figure 2.1: The structure of chapter 2**
2.2 Supporting Broader Literature

2.2.1 Broader theory 1: Communication

This section presents the theoretical background in relation to communication, which supports understanding of the elements of information processing and the modern marketing communication practice. This section presents the basics of communication theory, with specific attention given to the elements and models of communication, and the discussion of marketing communication within new media.

2.2.1.1 The basics of communication theory

According to Hovland (1948, p. 371), social communication includes four elements: ‘(1) the communicator who transmits the communication; (2) the stimuli transmitted by the communicator; (3) the individuals who respond to the communication; (4) the responses made to the communication by the receiver’. In general, there are three fundamental elements always existing in models of communication. They are the sender (source), the message and the receiver (Hovland 1948; Smith & Zook 2011). These three elements, combined with their variations existing in the context (e.g. interpersonal vs mass communication) and their interaction (e.g. offline vs online), generate the different types of communication models.

Two main models are most commonly used to demonstrate the fundamentals of communication: the one-way communication process (transmission model) and the two-way communication process (transaction model) (Dwyer 2009; Tynan et al. 2013). The one-way communication model, or transmission model, indicates a simple connection between sender and receiver, or source and destination (Smith & Zook 2011). First, the message is encoded by the sender and is sent through the communication channel. Encoding means transforming information into signals which are able to be transmitted (voice, a letter, a video link). The receiver decodes the signals to interpret them. Noise, which is a signal added to the process without the intention of sender, could exist in the communication process. The one-way communication process is without or has little feedback from the receiver (Tynan et al. 2013). The message, which is encoded and decoded in the channel, is not always understood in the
way the sender intended (Smith & Zook 2011). Elements associated with message transference, including tone of voice, body language and eye contact, levels of background noise, and a poorly constructed message, could be misinterpreted by the receiver or may cause the message to be misunderstood.

In contrast, the two-way communication model, or transaction model, highlights the interaction between the sender and the receiver rather than the message transmission. This model describes communication as exchange among people, not only a one-way process (Duncan & Moriarty 1998). In a two-way model, each member in the communication is both the encoder and decoder (Dwyer 2009). The model also underlines the concept of feedback, the return process which influences how the message is being interpreted. The two-way model places greater emphasis on the receiver and the meaning of message (Tynan et al. 2013).

While the one-way model explains that misunderstanding in transmission is caused by noise, and miscommunication by the sender, the meaning of messages in the two-way model is shaped by the perception of receivers in the communication context. Message receivers use their background, ideas, biases and assumptions in that situation, and thus interpret the meaning differently to others (Smith & Zook 2011). Therefore, the transaction model determines that communication is not only the interaction between people but is also the response of communicators to the environment (Dwyer 2009). Environment or context is a central aspect of communication. As a result, while in the transmission model a message’s effect on a receiver can be expected, the responses of a receiver in the transactional communication are more unpredictable (Tynan et al. 2013). Moreover, in contrast to the one-way process, where people play the role of either sender or receiver, a communicator in a two-way process can be both a sender and a receiver at the same time, within different forms of communication.

Both one-way and two-way models are significant for marketing communication in general and WOM research in particular. This thesis applies the communication process, as illustrated by the two-way model, because this model describes more clearly information processing by considering the interactivity of WOM communicators and the role of context in affecting receivers. The two-way model places the emphasis on
the interactivity in communication, in addition to its ability to explain the effects of messages by consideration of sender-receiver relationships in particular situations. The WOM message, which is a form of communication, is received by consumers. However, the meaning and use of messages are different for different receivers, as these are affected by friendship with the sender, interaction with others in the network, and the receiver’s personal standpoint (Reingen & Kernan 1986). Therefore, using language appropriate to receivers and selecting correct persuasive sources are key points in marketing communication (Tynan et al. 2013).

In summary, this section introduced the basics of communication which are utilised in marketing communication and WOM research. For WOM research, the elements and models of communication can be used as the background for conceptualising WOM information processing, in which the elements of source, receiver and message are the main WOM factors.

2.2.1.2 Marketing communication and new media

Communication is a human activity that links people together and promotes relationships (Duncan & Moriarty 1998). In marketing, communication is named as one element of the 4P classification of marketing mix (replacing Promotion) (van Waterschoot & van den Bulte 1992). As the consumer’s path to purchasing, communication has changed over years through many social factors, but technology has been the most important factor reforming human and marketing communication.

Recently, the emergence of modern technology has significantly changed the human communication landscape, where internet and mobile networks provide a global platform for people to communicate instantly and interactively (Smith & Zook 2011; Winer 2009). Modern technology has also given rise to new forms of marketing communications. These new electronic communication tools include email, Internet sites, mobile phone and messaging, and social media (Winer 2009). These electronic tools influence the nature of and behaviours people perform within the communication process. Consumers are no longer passive recipients of corporate communications from mass media such as television advertising, but can actively seek information on
websites, blogs, and social media (Hennig-Thurau et al. 2010). Modern, technologically enabled communication is no longer from firm to consumer, but also involves consumer-to-consumer or consumer-to-community interactions (Libai et al. 2010). This increased social influence has led to the greater importance of WOM communication (Batra & Keller 2016).

When people receive an electronic message, they have more options to respond than in traditional communications. They can choose when to open and read it, use or reproduce it, and forward or spread the message to other people (José-Cabezudo & Camarero-Izquierdo 2012). This active participation means that the message is, therefore, more likely to stimulate discussion and information flow in a broader community. Such communication is actually WOM, but also employed by marketing communication, as the original messages from the firms can naturally reach the consumers via sharing.

In conclusion, new media have clearly shaped marketing communications. The main characteristics of modern communication are that it is digital and interactive (Libai et al. 2010; Winer 2009). New marketing communication approaches are based on consumer-generated content and Internet-based channels (Winer 2009). Internet-based platforms include websites, blogs and social media which can help to spread information more easily, quickly and cheaply to consumers.

Such major changes in corporate marketing communication have led to the suggestion that ‘social media is the biggest change since the industrial revolution’ (Smith & Zook 2011, p. 9). Social media provides a platform for everybody to spread information to mass audiences. In such a context, WOM is a phenomenon, and a critical tool, for marketing communication practitioners to consider.

2.2.2 Broader theory 2: Elaboration likelihood model of persuasion

This section presents the elaboration likelihood model (ELM) of persuasion, which is one of the most popular theories of communication processing and persuasion. This theory explains how information receivers process the messages they are exposed to.
and forms the theoretical background to conceptualise consumer information processing.

### 2.2.2.1 Background

The field of persuasion is a primary topic of communication and marketing research (Friestad & Wright 1994; Pornpitakpan 2004). This field looks for theoretical insights and practical implications to effectively develop the message content and ways of delivery that have an influence on receivers (e.g. attitude change, raising awareness, or behaviour intention). The communication elements or variables which have been examined in historical studies are still investigated nowadays; for example, the characteristics of message source (attractiveness, expertise, trustworthiness), the message itself (argument quality), the recipient (knowledge, attention, involvement), or the context of communication (e.g. Celsi & Olson 1988; Hovland & Weiss 1951; Petty et al. 1983; Roser 1990).

However, for these variables, early studies considered each as having a ‘single effect’ on persuasion. Literature from the 1970s suggested that nearly every single variable studied would increase persuasion in some situations but decrease persuasion in other contexts and that they had no effects on each other (Petty & Cacioppo 1986). Such inconsistency of results called for the need to develop an integrated theory which could link all of communication elements and variables from a holistic perspective.

In response to this call, dual-process models of information processing were introduced in the 1970s and 1980s. This dual-process is the concept of two routes in human information processing, which was introduced in major theories such as the Elaboration Likelihood Model (ELM) (Petty & Cacioppo 1986) or the Heuristic-Systematic Model (Chaiken 1980) and has been widely applied in academic research. Of dual-process theories, ELM is the dominant theory used in marketing in general, and WOM research in particular.
Distinct from the ‘single effect’ perspective is ELM theory. This theory was developed to integrate all related research findings and place all factors under one conceptual umbrella (Petty & Cacioppo 1986). At its core, ELM theory suggests that individuals differ in how extensively and carefully they consider and evaluate the messages exposed to them. The level of engagement or the amount of elaboration in this information processing vary on an ‘elaboration continuum’, in which the high end is called the central route to persuasion and the low end is called the peripheral route to persuasion (Cacioppo & Petty 1984; Petty & Cacioppo 1984).

The position of information processing on the elaboration continuum is determined by the motivation and ability of receivers to engage in particular communication situations (Bordia et al. 2005; Cacioppo & Petty 1984; Lee et al. 2008). Motivation and ability can be influenced by several aspects. The motivation can be affected by the relevance of personal issues and message content or the enjoyment of the topic. If the messages are relevant to what receivers are considering, it is more likely to be processed. For example, if a final-year high school student is considering a university to apply to, she or he would pay attention to news regarding higher education. The ability to process is determined by several factors, such as intelligence, distractions, timing and other conditions of communication. For example, information regarding academic reputation and research activities of a university might be hard to understand for prospective students. The ability to process can also be affected by physical ability or environments, such as noises or technological issues.

In summary, the motivation and ability to process information are related to several factors, both internal to the person and external in the environment. They are therefore very specific to each individual or particular context. When the combination of motivation and ability is high, the information processing goes through the central route to persuasion. When the combination of motivation and ability is low, the information receivers are more likely to process through the peripheral route to persuasion (Petty & Cacioppo 1984, 1986).
2.2.3 Central and peripheral processing routes

ELM theory argues that human information processing will occur through two concurrent processes: central and peripheral (Bordia et al. 2005; Cacioppo & Petty 1984; Chaiken 1980; Petty & Cacioppo 1986; Petty et al. 1983). The combination of high motivation and ability of individuals will lead to the central route. Through the central route, information receivers will carefully evaluate the message content. The central processing route focuses on the message argument. If the message argument is strong, favourable thoughts will be generated, and an attitude change will be the consequence of the central processing route. If the message argument is weak, the central processing route is more likely to generate unfavourable thoughts, and either no attitude change or an attitude change in the negative direction will be triggered.

By contrast, the lack of motivation and ability to process will lead to the peripheral route. Through the peripheral route, information receivers will judge other peripheral cues instead of the message argument. These peripheral cues are various. They can be the emotional state of a special communication, the credibility and other characteristics of the source, or sometimes just the number of arguments. For example, if the individual considers the source as an expert, they are more likely to accept the information received.

ELM theory has been widely employed in WOM research, in which the peripheral route represents the perception toward WOM sources, and the central route represents the WOM message evaluation. However, while research in this field has considered the two processing routes as two mutually exclusive types of information processing, the central and peripheral routes can influence attitude simultaneously (Cacioppo & Petty 1984). Section 2.3.5 presents this research problem and links to the research theme of this thesis.

2.2.3 Broader theory 3: Services marketing

This section presents the theoretical background regarding services marketing, which builds upon the understanding of higher education marketing and information acquisition behaviours. Despite being an important sector in modern economies,
research about services only came after studies on manufactured goods marketing and other fields. The evolution of services research commencing in the 1980s significantly contributed to knowledge in this field and managerial implications, as well as creating a foundation for this dynamic, growing sector (Fisk et al. 1993; Grönroos 1982). With the heightened attention given to this area, characteristics of services were listed in many studies to distinguish services from other products.

Higher education, the context of the present research, can be classified as a service, as its characteristics are quite relevant to the frequently used IHIP characteristics of services (intangibility, heterogeneity, inseparability and perishability) (Edvardsson et al. 2005). The following section presents general aspects of services marketing which form the foundation of higher education marketing literature for this thesis. The discussion includes the services classification, perceived risk, and information sources.

### 2.2.3.1 Classification of search, experience and credence services

Services are usually classified under the framework of search, experience and credence, according to attributes of services (Lovelock & Gummesson 2004; Mitra et al. 1999; Ostrom & Iacobucci 1995; Zeithaml et al. 2009). This framework was developed based on the continuum of evaluation, from being ‘easy to evaluate’ to ‘difficult to evaluate’ these attributes (Darby & Karni 1973; Girard & Dion 2010; Nelson 1970). In summary:

- **Search** – refers to services having attributes that can be assessed before purchase, and such search services are easiest to evaluate (left end of the continuum);
- **Experience** – refers to services having attributes that cannot be known or evaluated before purchase or consumption;
- **Credence** – refers to services having attributes that cannot be evaluated even after purchase or consumption (right end of the continuum).

Consumers consider and select differently with each of these three kinds of services. Search, experience and credence services are distinctive in terms of evaluation, perceived risks, information search, and decision behaviour (Eisingerich & Bell 2007; Mitra et al. 1999; Ostrom & Iacobucci 1995). These differences make a variety of behavioural and managerial topics on which researchers could focus.
Higher education, or tertiary education, is classified as a credence service, because of its high involvement, complexity, high intangibility, and professional orientation (Patti & Chen 2009; Walsh et al. 2015), as many attributes of services are difficult to be evaluated by the consumers/students even in the post-purchase stages. Because the main outcome of higher education service is knowledge and skills delivered by very highly qualified educators, students cannot evaluate the service even after they have completed their degree. The importance of this decision for a career, the complication of choice factors, and no prior experience of prospective students, make the higher education choice a unique decision.

### 2.2.3.2 Perceived risk

The choice of a service, and in particular a credence service, is considered as a high-risk decision (Mitra et al. 1999). Services are considered fundamentally different from physical products. Therefore, the consumer behaviour in services can be considered distinctive. Because services are intangible, nonstandardised and unpredictable, consumers with less prior experience and uncertainty of the service outcomes typically perceive services to be riskier than goods (Murray 1991). Perceived risk can be classified into five dimensions, namely, financial, performance, physical, social, and psychological risk (Mitra et al. 1999). The higher level of risk perceived by consumers, the more sources of information they employ; and personal communication is considered one of the most reliable information sources (Mitra et al. 1999; Murray 1991).

Higher education choice is a significant purchase decision, through which a prospective student is exposed to several types of risk: financial (the expense involved in the investment), psychological (the emotions generated by the choice), functional (the future value of the chosen degree), and social (related to what others think about the choice) (Conchar et al. 2004; Patti & Chen 2009; Simões & Soares 2010).

The nature of this credence service and the associated high level of risk necessitate greater effort in information searching (Murray 1991). Service consumers (in this case, prospective students) are therefore more likely to be exposed to multiple information
sources and personal communication about their choice of higher education institutions, to help them navigate through the complex evaluation process.

### 2.2.3.3 Sources of information

Pre-purchase behaviour relates to the consideration process of service consumers. This is essentially the process of information search, which supports the consumers’ final purchase decision. The higher the level of risk perceived by consumers, the more sources of information they employ (Mitra et al. 1999; Murray 1991). The information sources can be categorised as internal and external; and external sources can be classified as personal and impersonal (Zeithaml et al. 2009).

Internal sources are considered when people scan their memory for their experience or past solutions related to the current service context. Experienced outcomes are used for evaluation of the riskiness of the choice in the new situation (Conchar et al. 2004). Consumers usually rely on internal sources for repurchase decisions or for experience-based services, for which they can evaluate their quality after consumption. A high level of satisfaction and confidence with a service brand can lead to more reliance on internal sources. However, for other services where consumers are not confident in relying on their existing knowledge or have no previous experience, consumers are likely to use external sources as their reference.

External information sources are popularly used to support the choice for most services. External sources refer to any information from the environment, society or market. These sources are categorised as personal and impersonal. Consider a high school student who wants to select a university. Besides prior knowledge, which is very limited for this credence service, the prospective student seeks many sources of reference such as university websites, advertising, family, friends, teachers, opinion leaders or media. Information such as in advertising, websites or media is classified as impersonal sources. Other sources made by personal communication, such as friends, family or influencers, are categorised as personal sources.

When purchasing services, consumers apply their risk-handling strategies, including information search (discussed in Conchar et al. 2004; Mitra et al. 1999). First, they use
prior experience and observation (internal sources) as reliable information (Murray 1991). However, with some services, where consumers do not have prior experience, or with credence services for which consumers are unable to evaluate the quality (for example, higher education), consumers have to rely on personal communication. Therefore, second, literature indicates that the role of personal influence (forms of WOM) in consumer purchasing is greater for services that are perceived as being riskier (Murray 1991). Moreover, WOM communication is considered as a more important risk-reducing source of information than other mass media sources (Arndt 1967b; Mangold 1988).

2.3 Background of Word-of-Mouth Research

2.3.1 Introduction to WOM communication

WOM communication has attracted the attention of researchers and marketers since the 1950s (De Bruyn & Lilien 2008; Lang & Hyde 2013; Martin & Lueg 2013; Nyilasy 2006), and is broadly accepted as one of the most influential activities in the marketplace (Bansal & Voyer 2000). WOM messages are delivered when people share their feelings with their friends or family about their experiences using products or services. Previous research has shown that consumers look for WOM recommendations when they want to purchase books and movie tickets (Chakravarty et al. 2010; Chevalier & Mayzlin 2006), choose vacation destinations (Litvin et al. 2008), make health care decisions (Dobele & Lindgreen 2011) or decide on educational services (Greenacre et al. 2014; Sipilä et al. 2017).

WOM is a popular phenomenon because people often share their information and opinions about their daily activities including non-commercial mentions of the products or services they are using (Arndt 1967c). This communication has a strong impact on consumer behaviour (Berger 2014) because consumers evaluate it as more reliable and trustworthy than other marketing tools (Arndt 1967c; Chawdhary & Dall’Olmo Riley 2015; Mangold 1988; Sheth 1971).

Accordingly, WOM has attracted a high level of attention from both researchers and practitioners for years. Empirical studies have investigated this communication through
various aspects. They have contributed abundant evidence that WOM is an important factor in consumers’ decision-making process, from information search, and awareness, through to purchase decision (Arndt 1967a; Chevalier & Mayzlin 2006; Liu 2006; Sheth 1971; Tax et al. 1993). Besides the effect of WOM communication on sales and customer behaviour, various studies have further investigated WOM communication across related aspects such as types of WOM source (Dobele 2006), motivation of senders (Berger 2014; Berger & Schwartz 2011), antecedents influencing receivers, or other moderating factors (Lang & Hyde 2013; Martin & Lueg 2013; Nyilasy 2006).

Most of the primary research, however, has focussed on the WOM sender perspective, in particular determining WOM as the consequence of service quality and satisfaction (e.g. Anderson 1998; Babin et al. 2005; Brown & Reingen 1987; Harrison-Walker 2001; Sivadas & Jindal 2017; Wirtz & Chew 2002). Less scholarly attention has concerned how the receivers make use of WOM in their purchase consideration (Martin & Lueg 2013). Understanding WOM from receiver perspective can provide insights into how the communication elements are processed, and thus would benefit WOM marketing practice. Therefore, this thesis concentrates on the receiver perspective, to investigate WOM information processing through the lens of receivers.

WOM theories have evolved with changes in human communication, especially the impact of modern technologies. Originally, oral, face-to-face communication dominated the WOM literature. Recently, the development of the Internet has allowed people to communicate more effectively. Digital channels and platforms such as websites, Facebook, Twitter and mobile messaging stimulate WOM communication via thousands of blogs, millions of posts and billions of text sent each day (Berger 2014).

The online trend in WOM communication results in a modern and significant research stream: eWOM (Breazeale 2009; Zhang et al. 2017). Besides the traditional topics that have been re-studied in the modern context, this landscape provides new research topics for marketers and researchers. This evolution includes topics such as online product reviews, communication platform differences, and consumer trust in online channels (Babić Rosario et al. 2016; King et al. 2014).
WOM is a broad research area, and its diversity indicates the significance of this phenomenon in furthering academic marketing knowledge, and the possibility of further research. This thesis focuses on the perspective of the WOM receiver to investigate WOM information processing. Moreover, it is necessary to explore the nature of WOM in various contexts (Berger 2014), such as in specific industries or the effects of modern technological channels. This research focuses on the higher education context, in order to collect data to examine WOM information processing as well as explore the information sought from WOM by prospective students, within digital channels of communication. Further discussions on the WOM literature and the research themes are presented in the following sections.

2.3.2 Defining WOM communication

The term ‘word-of-mouth’ has been used in English for a long time (Nyilasy 2006). One of the first academic definitions of ‘word-of-mouth’ was introduced by Brooks (1957). In comparison with advertising and personal selling, WOM was mentioned as ‘networks of interpersonal relations’ in consumer markets to share information regarding products (Brooks 1957). This early definition successfully identified interpersonal relations as a powerful source of information, but it did not clarify the members in the consumer market, or the independence of messages. The members of such ‘networks’, as defined by Brooks (1957), could be paid salespersons in the community; which definition thus does not constitute WOM communication.

A decade later, in one of the most frequently cited definitions (de Matos & Rossi 2008), Arndt (1967c, p. 3) defined WOM as ‘oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product, or service’. This definition is widely referred to in academic publications because it differentiates the concept into three different primary parts (Nyilasy 2006). First, it determines WOM as being the interpersonal communication between people, and identifies the positions of receiver and communicator. Second, it states the motivation of the communicator, in the receiver’s perception, as non-commercial. This ‘non-commercial motivation’ is an important phrase for differentiating WOM from other marketing communications. Third, in contrast to the
receiver’s perception, the content of WOM is categorised as commercial. However, this is a difference but not a contradiction, because a communicator can talk about the commercial content without a commercial intention, or at least not be perceived as having a commercial intention by the receiver (Nyilasy 2006).

Later researchers (e.g. Harrison-Walker 2001; Litvin et al. 2008) have further extended the WOM definition presented by Arndt (1967c). These extensions, include specifying the members of communication as friends, neighbours or acquaintances (e.g. De Bruyn & Lilien 2008; Kotler et al. 2010; Liu 2006), and the targets of WOM as products, services or organisations (e.g. Harrison-Walker 2001; Pride & Ferrell 2012). The full list of definitions analysed for this research are summarised in Table 2.1. For more than fifty years of WOM research, there has been a strong consensus among marketing researchers about this core meaning of WOM communication.

However, as WOM is a broad concept which might be applied in many contexts, there are various definitions customised from the core concept. For example, WOM messages cannot just be about ‘brand, product or service’; they could be regarding an organisation or an event (Buttle 1998). Furthermore, in the age of digital channels, WOM is no longer ‘oral, face-to-face communication’. This changing circumstance leads to more modern definitions (Breazeale 2009; Buttle 1998; Prendergast et al. 2010).

Recently, the emergence of Internet-based media has promoted the term ‘electronic word-of-mouth’ (eWOM), which refers to information regarding a product or company that is made available to a large group of people via the Internet (Hennig-Thurau et al. 2004). The concept of WOM adopted in this paper refers to all forms and channels, including digital, because consumers seek WOM in various forms during their complex and lengthy service evaluation process. Consequently, the definition used in this thesis combines the work of both Westbrook (1987, p. 261) and Berger (2014, p. 587), so that WOM is defined as informal communications directed at other consumers about the ownership, usage or characteristics of particular goods and services or their sellers; and it includes literal WOM, or face-to-face discussions, as well as ‘word-of-mouse’, or online mentions and reviews.
Table 2.1: Definitions of word-of-mouth communication

<table>
<thead>
<tr>
<th>Word-of-mouth is</th>
<th>Author</th>
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<tbody>
<tr>
<td>oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product, or service</td>
<td>Arndt (1967c)</td>
</tr>
<tr>
<td>powerful &quot;networks of interpersonal relations&quot; existing within the consumer market are also utilized for consumers to receive information regarding products</td>
<td>Brooks (1957)</td>
</tr>
<tr>
<td>informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services or their sellers</td>
<td>Westbrook (1987)</td>
</tr>
<tr>
<td>personal communication about a product between target buyers and neighbours, friends, family members and associates</td>
<td>Kotler et al. (2010)</td>
</tr>
<tr>
<td>informal, person-to-person communication between a perceived non-commercial communicator and a receiver regarding a brand, a product, an organization, or a service</td>
<td>Harrison-Walker (2001)</td>
</tr>
<tr>
<td>informal communications between private parties concerning evaluations of goods and services</td>
<td>Anderson (1998)</td>
</tr>
<tr>
<td>personal information exchanges of communication that customers share with one another about products, brands, and companies</td>
<td>Pride and Ferrell (2012)</td>
</tr>
<tr>
<td>personal conversations and informal exchange of information among acquaintances</td>
<td>De Bruyn and Lilien (2008)</td>
</tr>
<tr>
<td>informal advice passed between consumers</td>
<td>East et al. (2008)</td>
</tr>
<tr>
<td>the communication between consumers about a product, service, or a company in which the sources are considered independent of commercial influence</td>
<td>Litvin et al. (2008)</td>
</tr>
<tr>
<td>(or buzz is) informal communication among consumers about products and service</td>
<td>Liu (2006)</td>
</tr>
<tr>
<td>interpersonal, informal communication about products, which can take the form of goods or services</td>
<td>Martin and Lueg (2013)</td>
</tr>
<tr>
<td>mischievously nicknamed free advertising</td>
<td>Buttle (1998)</td>
</tr>
<tr>
<td>a face-to-face conversation between consumers about a product or a service experience</td>
<td>Sen and Lerman (2007)</td>
</tr>
</tbody>
</table>
Electronic word-of-mouth is any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet. According to Hennig-Thurau et al. (2004), all informal communications directed at consumers through Internet-based technology related to the usage or characteristics of particular goods and services, or their sellers. Litvin et al. (2008) state that this form of communication was developed by the researcher from the sources listed.

2.3.3 WOM phenomena in marketing

2.3.3.1 WOM effects and outcomes

WOM is considered the most effective form of marketing communication (Bansal & Voyer 2000; Brown et al. 2007; Brown & Reingen 1987; Buttle 1998; Engel et al. 1969; Harrison-Walker 2001; Kotler et al. 2010; Sheth 1971). This form of marketing communication has been shown to be an important factor in business. For instance, WOM is described as ‘a dominant force in the marketplace for services’ (Mangold et al. 1999, p. 73), ‘has a huge impact on consumer behaviour’ (Berger 2014, p. 587), is ‘an input into consumer decision-making, and an outcome of the purchase process’ (Bone 1995, p. 213), ‘plays an important role in shaping consumers' attitudes and behaviours’ (Brown & Reingen 1987, p. 350), and is ‘a way to obtain a significant competitive advantage’ (Sweeney et al. 2008, p. 344). Many studies from different perspectives about the WOM phenomena have enhanced its significance to the marketing world.

When comparing WOM to other information sources in business, this form of communication is recommended as a more powerful and reliable source than traditional, corporate controlled marketing activities. WOM referrals are considered more persuasive than other firm-controlled sources of information such as mass media (Buttle 1998; Sheth 1971). According to Katz and Lazarsfeld (1955), WOM referrals are seven times more influential than printed communication (e.g. newspaper and
magazine advertising), four times more influential than personal selling, and twice as influential as radio advertising in affecting consumers to switch brands.

Arndt (1967c) found that, because WOM is a consumer-dominated channel, it is perceived as more reliable and trustworthy than other firm-operated communication, and that personal influence might be able to provide social support and encouragement. Thereafter, since the emergence of television in the 1960s, studies have argued that, while advertising and media can generate the awareness of consumers about products or services, WOM communication can heavily influence their purchase decision (cited in Day 1971; Harrison-Walker 2001). In addition, Day (1971) computed that WOM was nine times as persuasive as advertising in changing consumer attitudes from neutral or unfavourable to favourable. Later study on product judgments by Herr et al. (1991) suggested that WOM had a stronger impact than printed communication.

From the view of generating an outcome, WOM has a strong influence on product and service perceptions, value evaluation, long-term and short-term judgement, and purchase decision (Arndt 1967c; Bone 1995). Sheth (1971) concluded that, in the stage of awareness and product trial, WOM is more influential than advertising. Research by Liu (2006) and Chakravarty et al. (2010) on WOM effects on movie selection suggest that movie pre-release and post-release WOM communication has a significant impact on aggregate and weekly box office revenue, which means the direct effect of the WOM communication on the final decision.

In summary, WOM communication is indicated to have effects on all stages of consumer decision, from awareness (Herr et al. 1991; Sheth 1971), sampling and trial stage (Bone 1995), to purchase decision (Arndt 1967a; Bansal & Voyer 2000; Chakravarty et al. 2010; Chevalier & Mayzlin 2006; Liu 2006). WOM appears to be effective in most of the stages in the consumer decision-making process as well as in both diffusion of innovation and existing products. Although many researchers have focused on the effects of WOM communication on selling new products (Arndt 1967a; Brooks 1957; Engel et al. 1969; Sheth 1971), there are also confirmations of its effects for established products (East et al. 2008).
2.3.3.2 WOM marketing practice

Marketing research consistently evidences the effects of WOM on customer behaviour. Therefore, marketing practitioners should consider developing WOM components as a part of their marketing communications techniques. Although WOM is difficult to manage, as it is personal and informal, marketers can utilise WOM marketing techniques to stimulate WOM among consumers. According to the Word-of-Mouth Marketing Association (2007), WOM marketing is defined as ‘giving people a reason to talk about your products and services and making it easier for that conversation to take place. It is the art and science of building active, mutually beneficial consumer-to-consumer and consumer-to-marketer communications’ (cited in López & Sicilia 2013, p. 1091). It is the firms’ intentional influence on consumer-to-consumer interactions by targeted seeding and communication programmes (Kozinets et al. 2010).

Regarding the definitions mentioned above, there are two main techniques in WOM marketing, namely refer-a-friend programmes and seeding programmes (López & Sicilia 2013). The referral programmes encourage consumers to recommend products or services to their friends to receive an award from the firms. In seeding programmes, the more common of the two techniques, the firm works with or indirectly encourages an initial group of early adopters to spread information to their communities. In effect, these consumers lead others to the firm, and are the seeds by which the WOM communication spreads.

The development of the Internet and related mobile technologies have meant that firms have multiple channels by which to employ their WOM marketing practices (Trusov et al. 2009). Modern communication tools, such as emails, messaging and social media, provide a greater variety of platforms for marketers to communicate with customers and thus, more opportunities for a seeding campaign to become viral.

To successfully employ WOM marketing practice, marketers need to carefully consider and select from multiple potential elements involved in the WOM campaigns, i.e. communication partners, content and channels (Buttle & Groeger 2017). Therefore, understanding these interactions and how consumers process WOM information
within such communications are fundamental for campaign development. Specifically, marketing practitioners need to better understand which source characteristics are most influential, how different channels and impact consumer involvement and the impact of channel selection on degree of influence. In proposing to more deeply understand the interaction and consumption of WOM information, this research is leading the investigation of WOM information processing.

2.3.4 Two perspectives on WOM research

This interesting research domain has attracted many studies over decades, and there are many areas in which such research has been carried out, addressing various questions. What motivates people to share and pass on WOM messages? Whom are people listening to (e.g. friends vs. opinion leaders), and which channels are they usually communicating through (e.g. Internet platforms)? Why does some particular content become more viral than others? (Berger 2014).

Besides the research stream of WOM outcomes, which has been summarised in the previous section, there are two research areas that have been widely focused on in the literature: the source perspective and receiver perspective. Research from the WOM source perspective looks at the generation of WOM content, such as the motivations and antecedents of WOM creation and sharing behaviours (e.g. Stephen & Lehmann 2016).

Research from the WOM receiver perspective observes information processing when consumers receive WOM messages. In this observation, all the factors related to source perception, message evaluation, communication channels and contexts are examined as the antecedents of WOM influence (e.g. Martin & Lueg 2013). A summary of research on these two perspectives is presented in the next section.

2.3.4.1 Source perspective: Antecedents and motivations of WOM generation

The perspective of the WOM source investigates the generation of WOM, including initial message creation, WOM sharing, and transmission intention and behaviour. Researchers in this area have attempted to explore the antecedents and nature of WOM
intention (Anderson 1998; Zhang et al. 2017). For example, the Westbrook (1987) study indicated that product experience of automobile and cable television consumers has considerable impact on their post-purchase behaviour. Previous research confirmed that people often talk within personal relationships about product usage experiences (Berger 2014). Jalilvand et al. (2017) examined the impacts of service quality factors on relationship quality and WOM intention.

In general, studies have asserted the role of satisfaction, loyalty, commitment and incentive as antecedents to encourage customers to spread their WOM recommendations (de Matos & Rossi 2008; Harrison-Walker 2001; Jalilvand et al. 2017; Sivadas & Jindal 2017). The importance of satisfaction/dissatisfaction in WOM is emphasised in the statement, ‘your best salesman is a satisfied customer’ (Engel et al. 1969, p. 15), because dissatisfied customers spread WOM messages further than satisfied customers (Anderson 1998).

More recent works have focused on eWOM intentions in various online platforms. Hennig-Thurau et al. (2004) analysed, from traditional theories, crucial motivating factors encouraging people to share their comments via online platforms as being social benefits, extraversion/positive self-enhancement, and concern for other customers. Other studies have explored the role of community engagement in WOM intention in brand communities (e.g. Le 2018; Zhang et al. 2017).

Moreover, a comprehensive review by Berger (2014) addressed the five key functions of WOM, as the drivers of the speakers. These key functions are defined as: 1) Impression Management (subcomponents: self-enhancement, identity signalling, filling conversational space); 2) Emotion Regulation (generating social support, venting, facilitating sense-making, reducing dissonance, taking vengeance, encouraging rehearsal); 3) Information Acquisition (seeking advice, resolving problems); 4) Social Bonding (reinforcing shared views, reducing loneliness, social exclusion); and 5) Persuasion. In sum, substantial research in the area of the motivations of WOM senders provide marketing practitioners with extensive insights into how to encourage consumers to spread WOM.
2.3.4.2 Receiver perspective: WOM information processing

The perspective of the WOM receiver investigates factors of the communication as the antecedents, mediators and moderators of the WOM influence on receivers. These factors are all included within information processing when consumers are involved in WOM communication. Studies have been conducted in this area due to the reason that researchers want to explore factors that could lead receivers to turn to action. Research embraces the communication frameworks to examine factors related to three main elements: source, message and receiver.

Within WOM information processing, consumers would consider the credibility of communicators, and strength of the relationship with them; and they tend to judge factors such as expertise of originators, receiver experience, and tie strength. The literature in this area confirms these variables. Bansal and Voyer (2000) classified interpersonal forces and non-interpersonal forces of buyers in the service context and affirmed the influence of tie strength and sender’s expertise on the purchase decision. De Bruyn and Lilien (2008) summarised the main factors such as tie strength, perceptual affinity, demographic similarity and source expertise, and analysed them in different stages of decision-making process.

Similarly, source trustworthiness, source experience and evidence affect purchase intention and attitude toward the product (Martin & Lueg 2013). Regarding message characteristics, Mazzarol et al. (2007) conceptualise valence, richness of message and strength of advocacy as the direct antecedents of WOM outcomes. Besides the perception towards WOM sources, which is the most mentioned factor in this area, the message characteristics and situational factors in context are also important factors influencing WOM effectiveness from the receiver perspective (Sweeney et al. 2008).

In general, although various works have been conducted to investigate the factors within WOM information processing (from the receiver perspective), literature in this area is relatively fragmented. What is missing, in particular, is a comprehensive view of the whole of processing and all related factors (Martin & Lueg 2013). In fact, such factors are evaluated simultaneously when WOM occurs, so that the factors within
WOM processing should be considered from a holistic ‘procedural’ angle (Bansal & Voyer 2000). Consequently, Paper 1 of this thesis conceptualises WOM processing, and Papers 2 and 3 examine the processing routes, in application of the ELM theory. The following Section 2.3.5 argues the first research theme of WOM information processing under the light of ELM theory.

2.3.5 Research theme 1: WOM information processing applying ELM theory

ELM theory has been widely utilised in WOM research from the receiver perspective, as this theory can help to describe the processes and factors within the information processing by receivers (Lee et al. 2008). Despite this popularity, most of the research in this domain only uses the idea of two processing routes as the theoretical background to propose the effects of source-related and message-related factors. The source characteristics are represented by the peripheral processing, and the message characteristics mean the central processing (Cheung & Thadani 2012). Applying ELM theory, WOM sources and messages have frequently been examined in WOM research (e.g. Cheung et al. 2008; Mahapatra & Mishra 2017).

However, the examination of source and message in WOM literature cannot fully reflect the concept of ELM theory. This theory was proposed to deal with the fragmentation in communication and persuasion research, as there were inconsistencies in the findings of studies on single factors. It was developed to combine all factors and demonstrate the information processes under one conceptual umbrella (Petty & Cacioppo 1986).

Besides message and source, there are also receiver knowledge and involvement, content relevance, number of attempts, surroundings, and channels, to name a few. Therefore, applying ELM theory, it is necessary to integrate all of these factors to completely understand the information processing of WOM receivers. Addressing this issue, Paper 1 presents a review on ELM and related works in WOM research and develops the WOM Processing Framework which provides a comprehensive view of multiple factors.
Moreover, the central and peripheral routes do not separately influence the attitude. They represent positions on a continuous elaboration continuum ranging from low to high, and the position is determined by the motivation and ability in each communication situation (Cacioppo & Petty 1984). The two processing routes simultaneously exist, and the degree of each processing is determined by the motivation and ability together to process.

Moreover, the original framework of Petty and Cacioppo (1986) describes the link between two processing routes, as the peripheral attitude shift can activate the central processing (Figure 2.2). It notes that the two processing routes might coexist, and the former can be a precursor to the latter (Kang & Herr 2006). As there is no WOM research investigating this link, this is identified as a research topic in the present thesis, to explore the relationships between WOM source and WOM message. Papers 2 and 3 examine these relationships, the mediation effects of message quality, and the flow of the two routes in WOM information processing.

Figure 2.2: ELM: central and peripheral routes to persuasion

Source: adapted from Petty and Cacioppo (1986)
2.4 Background of Higher Education Choice Research

2.4.1 Introduction to higher education marketing

Global competition is a modern trend which considerably influences higher education industry (Hemsley-Brown & Oplatka 2015; Marginson 2006). Students have greater opportunities to study, in their home countries or by becoming an international student especially in English-speaking countries, where higher education is an important export industry (Choudaha 2017; Marginson 2006; Mazzarol & Soutar 2002). This phenomenon forces universities to be more active in an increasingly competitive global market, place greater emphasis on their marketing strategy and tactics in the student recruitment space, and has created demand for research into higher education marketing.

First, in the higher education marketing literature, besides the discussion of global and national competition in the higher education market (Gibbs 2001; Marginson 2006), researchers have employed many traditional marketing constructs in investigating the quality of the student experience. In fact, the concepts of brand (e.g. Stephenson et al. 2016), reputation (e.g. Nguyen & LeBlanc 2001), segmentation (e.g. Constantinides & Zinck Stagno 2011) and service quality (e.g. Sultan & Wong 2013; Teo & Soutar 2012) are frequently investigated in studies, which tend to focus on exploring customer, satisfaction and value from the student perspective (discussed in Hemsley-Brown & Oplatka 2006). Primary theories, for example, relationship marketing (Arnett et al. 2003; Helgesen 2008; Hennig-Thurau et al. 2001) and marketing communication (Chapman 1981; Gatfield et al. 1999; Nguyen & LeBlanc 2001), have also been considered in this field.

Second, research has focused on exploring insights into the decision-making process of prospective students. Higher education possesses the characteristics of a service industry (Moogan et al. 1999; Simões & Soares 2010). It is classified as a credence service, which consumers consider as being a high-risk purchase decision, because it is
an important decision for their careers and they would be unable to evaluate the quality even after purchase and use (Patti & Chen 2009; Walsh et al. 2015).

Therefore, higher education choice is a unique and important decision for students’ career, and thus presents additional challenges for higher education marketers compared to low-involvement products of services (Canterbury 2000; Moogan et al. 1999). Consequently, to discover the considerations for consumers of this credence service, higher education choice and consumer behaviour are the main research streams in this field. Models of the decision-making process have been introduced by many papers to explore factors through stages of this process (e.g. Chapman 1986; Moogan et al. 1999; Vrontis et al. 2007).

Third, following the emergence of Internet and digital channels, online platforms and social media have become effective recruitment channels for universities (Rutter et al. 2016), especially for the international education market (Hobsons 2017; Teng et al. 2015). Postings, reviews, and discussions in social media are actually eWOM communication, which is an influential information source in this sector. As prospective students are in the Millennials (Mangold & Smith 2012) and iGeneration age groups, who are considered technologically savvy and use modern communication platforms on a daily basis, research on social media usage of prospective students and the effect of these communication channels on the decision-making process is significant to higher education marketing (Galan et al. 2015; Hayes et al. 2009). Thus, Paper 5 of this thesis conducts a content analysis on social media to explore the information that prospective students seek on social media platforms.

Fourth, another focused topic is exploring the choice factors of prospective students. Many studies and reports have identified the attributes that students consider when they make decisions (Dao & Thorpe 2015; Hobsons 2017; Joseph & Joseph 2000; Mazzarol & Soutar 2002; QSEnrolmentSolutions 2018; Simões & Soares 2010; Soutar & Turner 2002; Veloutsou et al. 2004). Identifying these choice factors helps university managers to understand which issues concern students, to design a suitable recruitment strategy.
Despite much attention, there is no single list of choice factors that can be suitable for different contexts; hence, further research on various contexts is recommended (Hemsley-Brown & Oplatka 2015). Responding to this call, Paper 4 investigates the choice factors across segments of domestic/international students in Vietnam and Australia; and Paper 5 explores the choice factors being asked about by prospective students on social media.

2.4.2 The decision-making process of prospective students

As service consumers make decisions, they participate in various stages of the decision-making process. For prospective students, university choice is considered to be a highly involved, highly risking decision process (Simões & Soares 2010). This decision-making process applies for a credence service, the quality of which most consumers find impossible to experience in advance. University choice models have been developed based on the models of consumer decision-making behaviour in services in general. One of these decision-making process models is the work of Moogan et al. (1999), which comprises five stages, labelled Problem Recognition, Information Search, Evaluation of Alternatives, Purchase, and Post-Purchase Evaluation. As this thesis focuses on investigating the choice factors of prospective students and WOM source usage, only pre-purchase stages are considered.

The first stage of ‘Problem Recognition’ occurs when students first recognise the need for and aspire to have aspirations of higher education. The focus in this stage is on the decision whether prospective students should pursue tertiary study. A prospective university student may spend a long time in the need recognition stage before making a decision. For example, for high school students considering entering a university upon graduation, the decision to study at a higher education institution may coincide with their high school studies. The length of this consideration period and difficulty in assessing are significant reasons why this stage is the most difficult to research (Chapman 1986).

Influential forces during this initial stage could be internal forces such as demographic and economic characteristics, which involve academic achievement, economic
condition, and family background as the main forces (Jackson 1982). For example, students consider selecting their study major, university level, onshore or offshore study, ability to pay the costs associated with higher education study, family interest, and academic record. The parents and family are usually the most important influence on this stage. The pursuit of university-level education, once decided, will lead to the next step, search for information.

‘Information Search’ and ‘Evaluation of Alternatives’ can be combined as the Search stage (Kopanidis 2008), in which prospective students participate in extensive information acquisition activities regarding possible universities. As university selection is a significant milestone in life, the extensive, highly involved efforts of students are to be expected. Similar to the services context in general, besides the internal source, external sources comprising personal and impersonal information are referred to during the stage (Murray 1991; Zeithaml et al. 2009). The various external sources include media, university websites, parents and teachers, and open days.

Personal sources which tend to be relied on to compare alternatives are extremely important (Vrontis et al. 2007). These personal influences could be parents, high school teachers, family members, friends, college alumni, friends participating in universities. Most of these sources can be acquired via WOM communication (Moogan et al. 1999). Many students consider WOM information as being one of the most important dimensions to support their decision (Mazzarol & Soutar 2002).

When students look for the required information in the Search stage, they consider a list of attributes, which cover all possible factors they want to search for as well as being used to evaluate among alternatives (Simões & Soares 2010; Veloutsou et al. 2004). This choice factors, or ‘attribute set’ (for example, teaching quality, academic reputation, job prospect), vary for different students, and are highly dependent on context. Besides the information sources, identifying the students’ choice factors is required to understand student search and choice behaviour.

The model of the decision-making process illustrates in detail the stages which prospective students participate in to select their university. Each of these stages raises
many research questions for higher education marketers and scholars (Jackson 1982; Vrontis et al. 2007). Higher education managers and marketing researchers have investigated various aspects of student behaviour in this selection process, such as motivation, personal values, or selection criteria (Kopanidis 2008). This thesis concentrates on the Search stages of prospective students, when they use personal sources of information and consider choice factors to support their university choice. The WOM communication and choice factors are the main focuses of this thesis, and these are discussed as the research theme in the following section.

2.4.3 Research theme 2: Choice factors of prospective students, and WOM usage

In order to develop their marketing strategy for student recruitment, universities should know the various attributes that students look for in their consideration process. These attributes, or choice factors of students, form the students’ information search activities and affect their decisions. The choice factors are important issues in higher education marketing research, thus they have been widely investigated.

Previous research has explored the choice factors of prospective local/international students in various contexts such as Australia, United Kingdom, United States, and Portugal (for example, Mazzarol & Soutar 2002; Moogan et al. 2001; Moogan et al. 1999; Obermeit 2012; Simões & Soares 2010; Soutar & Turner 2002; Veloutsou et al. 2004; Walsh et al. 2015). The extensive review of Hemsley-Brown and Oplatka (2015) showed that choice factors were varied across the contexts of research. However, regardless of all this previous research, there lacks an accepted and complete list of all attributes that cover all students’ requirements.

A conjoint analysis by Soutar and Turner (2002) investigated the attributes of Australian high-school leavers and found that the most important determinants of university preference were course suitability, academic reputation, job prospect and teaching quality. Using data from 306 pupils in various schools in the United Kingdom, Veloutsou et al. (2004) identified a long list of information requirements, led by course content and university reputation. Industry reports indicated that teaching quality,
career prospects and affordability are among the top choice factors of international students (Hobsons 2017; QSEnrolmentSolutions 2018).

Yet another study focussed on the differences between international and local students and suggested that, while both local and international students were concerned with having qualifications recognised by future employers, the choices of international students were also affected by university reputation, high quality staff, links with other institutions familiar to students, or alumni base, and WOM process (Mazzarol & Soutar 2002).

Thus, it is evident from this previous research that the variety of choice factors suggested reflects the complexity of student behaviour. Given this complexity, understanding the diversity of choice factors in various contexts, is a major contribution to this body of knowledge. Specifically, these contributions can be defined in terms of two aspects: segmentation (Paper 4) and online context (Paper 5).

As there is no single list of choice factors, a segmentation analysis can discover and compare the importance of choice factors across demographic groups of students under a research setting. The selection of segments for analysis also satisfies the need for further research on a key topic of the recent competitive landscape: comparing international and domestic student segments (Paper 4). Regarding choice factors in online contexts, the thesis analyses the choice factor information sought from social media, a highly used communication channels of prospective students nowadays (Paper 5), as discussed in Section 2.4.1.

This research theme also investigates the WOM usage of prospective students, as well as how the information of choice factors is delivered via WOM. As discussed on services marketing (Section 2.2.3), higher education is a representative of services that have a high level of credence qualities which consumers equate to a high-risk service, requiring them to engage in a long and complex decision-making process to evaluate the services (Walsh et al. 2015). According to services marketing theory, WOM is one of the most influential information sources in this context (Murray 1991).
Although WOM communication in higher education has been investigated (e.g. Bruce & Edgington 2008; Greenacre et al. 2014; Moogan et al. 1999; Patti & Chen 2009), most of these studies explored WOM sent by students, as the outcome of student satisfaction and relationship marketing. There is insufficient literature on WOM usage in support to the students’ choice behaviour. There is no research on investigating the choice factor information seeking through WOM, while it is also a significant topic in this domain. The present thesis explores this topic by examining the WOM usage for choice factor information in both papers. Paper 4 examines which choice factor information is discussed in WOM, across segments; while Paper 5 analyses the choice factor information sought from social media eWOM.

2.5 Chapter Summary

As a thesis includes five separate papers, there is limited space in each paper to present theoretical background and extensively review associated theories. This chapter is necessary to present a broader theoretical background for the whole research, which includes the broader theories and related literature on the two research themes. The chapter was structured into three levels (Figure 2.1): the broader literature, the main literature, and the research problems.

First, the broader literature comprises broader theories (parent theories): communication theory, ELM theory and services marketing. The communication and ELM theories provide background into the nature of communication and information processing. Communication theory describes elements of communication, communication models and marketing practice in the context of new media. ELM theory further provides understanding on the information processing and persuasion of communication, by presenting the concept of elaboration likelihood and two processing routes. These broader theories provide a background to reveal factors and routes of information processing in WOM communication. The services marketing theory presents principles of service research which are related to this project. This links to the higher education context as a credence service and the information search of service consumers.
Second, the two main literatures of this research were presented: WOM and higher education choice. The WOM section presents the WOM definition, the effects of WOM on consumers, and WOM marketing practice. Next, the related works on the source and receiver perspective were reviewed to express the importance of the first research theme – the receiver perspective. In the higher education section, the decision-making process of prospective students was demonstrated and the prior research on choice factors of prospective students discussed to address the significance of the second research theme.

Third, in the third level, the two research problems were identified and the research questions allocated to the papers. Although there are previous works on WOM information processing, factors have been examined separately to indicate their single effects. A holistic approach to understanding the factors and routes of WOM processing is a significant requirement. Papers 1, 2 and 3 report the research on WOM information processing from the receiver perspective, based on the application of ELM theory. Regarding higher education choice research, there are inconsistencies in the findings of previous studies on choice factor information. Papers 4 and 5 are related to the choice factor information required by prospective students and WOM usage, with Paper 4 about student segments and Paper 5 about eWOM on social media. The next chapter outlines the two methods utilised in the empirical papers; before the five papers are presented in the following chapters.
Chapter 3: Methodology

3.1 Introduction

The introduction and broader theoretical background chapters have addressed the research issues and developed a plan for conducting empirical studies within this thesis. There are many approaches for carrying out a study in business scientific research, and each of them facilitates a different research type. This methodology chapter outlines the selection of the research paradigm, research design and related research methods which were implemented to solve the research problem. As described in Chapter 1, there are two data collection methods utilised in this thesis: a quantitative survey for Papers 2, 3 and 4, and a content analysis reported in Paper 5. As this thesis has been written under a paper-based format, the research philosophy and design are not extensively discussed within limited space of the empirical papers. Therefore, this chapter is necessary to describe the philosophy underpinning the thesis and the methods utilised in the empirical studies. This chapter includes the discussion and justification for research paradigm and overall research design in Sections 3.2 and 3.3, ethical consideration in Section 3.4, followed by a detailed discussion of the data collection methods: content analysis and cross-sectional survey.

3.2 Research Paradigm

A research paradigm is defined as ‘a philosophical framework which guides how the scientific research should be conducted’ (Collis & Hussey 2014, p. 43). A research paradigm comprises the dimensions of ontology, epistemology and methodology (Collis & Hussey 2014; Quinlan 2011; Saunders et al. 2009). Ontology is related to the nature of reality. It refers to whether the reality is objective or subjective to the researcher. Epistemology is concerned with the nature of valid knowledge. It refers to whether the knowledge is constructed involving the researcher in the social context. The main paradigms in research philosophy are positivism and interpretivism, which
direct to different methodologies and research designs, as well as to the choice of quantitative or qualitative methods (Collis & Hussey 2014; Quinlan 2011).

The positivism paradigm is the traditional scientific approach widely used in social science and marketing research. A positivism paradigm is based on the ontological assumption that social reality exists independently and externally to the researcher, and the target of research is discovery and development of theories (Collis & Hussey 2014). Therefore, the epistemology of positivism directs the researchers to stay external to the circumstance being investigated, concentrate in facts, and analyse the cause and effect of a phenomenon (Bryman & Bell 2011; Collis & Hussey 2014). This paradigm provides an explanation about the phenomena, and predicts their development, and links to deductive theories (Quinlan 2011; Saunders et al. 2009). In contrast, an interpretivist paradigm relies on the ontological assumption that social reality is subjective; and the epistemology of interpretivism suggests that the researchers interact with the phenomenon to collect subjective evidence for study (Bryman & Bell 2011; Collis & Hussey 2014). Thus, interpretivism leads researchers towards qualitative and inductive approaches (Bryman & Bell 2011).

A positivist stance was selected as the most appropriate research paradigm for this thesis, based on the context, objectives and nature of WOM research. WOM communication is widely accepted as a popular phenomenon in human beings, naturally occurring in daily communication among people, without the control and moderation of investigator. Thus, the researcher remains distant and has no direct interaction with the WOM communicator. Although there is a dearth of knowledge on WOM in higher education, the concepts being investigated in this research, such as WOM source characteristics, message content quality or choice factors of students, have been separately determined in existing WOM or higher education studies. Accordingly, the studies of this thesis analyse, develop and empirically examine theoretical models based on existing concepts. Thus, the framework of positivism is considered as a more suitable approach than interpretivism.
3.3 Research Design

The research design is a general plan of how the research will be conducted to answer the research questions (Saunders et al. 2009). As the positivist paradigm is applied in this research, quantitative approaches are selected (Quinlan 2011) for the empirical studies. Specifically, two data collection methods appropriate to positivism were chosen based on research questions of each study: content analysis and cross-sectional survey.

3.3.1 Method 1 (for Paper 5): Content analysis

The research question of Paper 5 is to analyse choice factor information inquired about by students via eWOM communication. The content analysis of online data was selected as the method due to three reasons. First, little research about higher education choice factors has been undertaken by utilising data from online communications. This could provide a means to expand the knowledge in student choice behaviour. Second, content analysis is useful for WOM researchers to collect data from online conversations. Data gathering in WOM research is difficult because it is exchanged in private conversations, and investigators need to access to the context (Godes & Mayzlin 2004). Fortunately, the online channels in which people communicate provide an accessible environment for investigators to observe this phenomenon. Third, content analysis is considered to be appropriate to a positivist paradigm (Collis & Hussey 2014). It is a method which could be used as both a quantitative or qualitative approach (Krippendorff 2013; Neuendorf 2002). For example, the quantitative content analysis can quantify data for the statistical tests and the qualitative content analysis be applied for the classification of data to categories. From these justifications, content analysis is the most suitable method. The discussion of content analysis method, sampling, data collection and data analysis are presented in following sections of this chapter and in Paper 5 (Chapter 8).

3.3.2 Method 2 (for Papers 2, 3 and 4): Cross-sectional survey

The research questions of Papers 2 and 3 are to examine the factors of information processing that influence the WOM effectiveness. The constructs in these empirical studies are evaluated from the perspective of WOM receivers, thus a cross-sectional
survey to WOM receivers is the most suitable method. This method is also the most popular utilised in research about WOM effectiveness and adoption (e.g. Bansal & Voyer 2000; Sweeney et al. 2014). The research question of Paper 4 is to analyse the choice factors sought from WOM by different student segments, so that a survey to prospective students is suitable to explore the choice factors they are considering. Moreover, cross-sectional survey is considered to be a method appropriate to a positivist paradigm (Collis & Hussey 2014).

The theoretical models and hypotheses of Papers 2 and 3 are taken from the conceptual framework of Paper 1. Therefore, a cross-sectional survey is used to test these hypotheses. A questionnaire survey was distributed to a sample of high school students in Victoria, Australia and Ho Chi Minh City, Vietnam, who are applying to universities. Then, the model and hypotheses are quantitatively tested using structural equation modelling (SEM).

### 3.4 Ethical Consideration

The study was undertaken strictly following the ethical guidelines of College of Business, RMIT University during all stages of the data collection. As required by the university, the research was classified under the Low Risk Research classification through the application for and written approval from the Business College Human Ethics Advisory Network (BCHEAN) with the receipt number of (BCHEAN No. 19371) for all approaches to sampling and data collection.

The content analysis was conducted based on conversations from the online environment, where the content data were available for public access. The recorded data were de-identified and coded with a pseudonym by the researcher during the data collection process. This process involved cutting and pasting the questions and all answers arising from it. No data were collected that contained identifiable information (e.g. usernames will not be collected). All posts were assigned pseudonyms, for example, a name for a person that was not the original name (as usernames were not recorded).
The participation in the survey was completely voluntary. The invitations were distributed at open days of universities in Australia, and the paper questionnaires were distributed at high schools in Ho Chi Minh City, Vietnam. It was free and voluntary for students to start, complete and return the survey. Participant information sheets were attached in the hard copies of the survey questionnaire and were displayed on the landing page of the online questionnaire survey. The participant information explains the objective of the research and the rights of the participants as well as addresses all ethical issues (see Appendices A1 and B1).

3.5 Content Analysis Design

The first data collection approach, content analysis, was employed to address the research question 5 (Paper 5). Content analysis is a useful method for collecting web-related information (Neuendorf 2002), with four key advantages: it is unobtrusive, flexible, and context sensitive, and can cope with large volumes of data (Harwood & Garry 2003; Krippendorff 2013). Content analysts, however, are faced with the challenges to make a strong case for the validity and reliability of their findings. Most of weaknesses of content analysis are derived from the analysts’ ignorance of method design. Therefore, in order to enhance the reliability and validity for coded data under study, the design of this content analysis follows the guides of Potter and Levine-Donnerstein (1999). According to Potter and Levine-Donnerstein (1999), content analysts need to clarify the nature of content they are analysing and the role of theory used in the study. These decisions make the task of coders easier and clearer. Therefore, it is important to first address the foundational issues of content analysis in this study, including the nature of content, the role of theory, and the coding plan to manage reliability and validity. Following this, the sampling and data collection procedure is outlined.

3.5.1 Content analysis foundational issues

3.5.1.1 Nature of content

The nature of content is different across various research settings. The first developed content analyses focused on manifest content (Graneheim & Lundman 2004).
However, analysing only manifest content could not uncover the hidden meaning which is unobservable from the elements on the surface of messages. Contemporary content analysts therefore have divided content into three types: manifest, pattern and projective (Krippendorff 2013; Potter & Levine-Donnerstein 1999). These types of content, however, are not mutually exclusive or contradictory groups. It is more a difference of degree, and it is possible for the types to overlap. Table 3.1 compares and contrasts these three types. From left to right, there is an increase in the degree to which coders bring their own schema of judgement into coding tasks. Moving from right to left, there is an increase in the confidence of constructing rules that guide coders in capturing the essence of that which is coded.

Table 3.1: Comparing and contrasting three types of content

<table>
<thead>
<tr>
<th>Types of Content</th>
<th>Manifest</th>
<th>Latent Pattern</th>
<th>Projective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Locus of Meaning</strong></td>
<td>Discrete content characteristics</td>
<td>Pattern of content characteristics</td>
<td>Receivers' interpretations cued to schema</td>
</tr>
<tr>
<td><strong>Role of Theory</strong></td>
<td>Not relevant</td>
<td>Theory is basis for deducing coding scheme</td>
<td>Deductions of codes from weak theory inductions of results to stronger theory</td>
</tr>
<tr>
<td><strong>Task for Coders</strong></td>
<td>Clerical recording</td>
<td>Recognizing patterns</td>
<td>Constructing interpretations</td>
</tr>
<tr>
<td><strong>Validity</strong></td>
<td>Accuracy</td>
<td>Accuracy</td>
<td>Creation of strong norm</td>
</tr>
<tr>
<td>- Coding Scheme</td>
<td>- Binary rules based on definitions</td>
<td>- Rules for element orienting pattern recognition</td>
<td>- Rules for element-orienting, pattern-recognition person schema implied</td>
</tr>
<tr>
<td>- Standard</td>
<td>- Objective criteria</td>
<td>- Criteria set by expert</td>
<td>- Intersubjective norm set by coders</td>
</tr>
<tr>
<td><strong>Reliability</strong></td>
<td>Consistency with standard</td>
<td>Consistency with standard</td>
<td>Intersubjectivity among coders</td>
</tr>
<tr>
<td>- Threats to Reliability</td>
<td>- Coder fatigue</td>
<td>- Inconsistent application of rules</td>
<td>- Wide range of coder schema</td>
</tr>
</tbody>
</table>

Source: adapted from Potter and Levine-Donnerstein (1999, p. 261)
Manifest content refers to texts that are easy to read, unambiguous and generally understandable, even by untrained coders (Krippendorff 2013). Manifest content is usually observable on the surface of messages, such as in words in a written text, functions on a website, or certain behaviours in an interpersonal conversation. For example, a conversation on an online forum that starts with the question, ‘What is the ranking of RMIT University?’, indicates that the concern of this student is ‘university ranking’. However, the meaning of content is usually beyond the manifest content due to the complexity of communication. Alternatively, the analysts should also code the latent content, which is the meaning underlying the surface of messages. Latent content can be divided into two types: latent pattern and projective (see Table 3.1). While the latent pattern content can be understood by the design and arrangement itself, the projective content focuses on the coders’ interpretations of the meaning of content (Potter & Levine-Donnerstein 1999). For instance, analysing the interactivity of an ecommerce website, the coders could analyse the pattern content as a combination of feedback and comment functions, contact and inquiry digital forms, payment and order tracking functions. Categorising the level of humour or message of a movie, as an example of projective content, the coders have to use their interpretations and experience to evaluate and make the coding. Because students’ questions on social media about universities are contextual questions and most of them are too short for being analysed based on a pattern, the interpretation of coders is applicable to understand the meaning of the content. The content analysis in this study will collect manifest content and projective content.

### 3.5.1.2 Role of theory

Following an understanding of the nature of content, analysts need to identify the role of theory applied in the study. The role of theory is a primary consideration in the content analysis setting, since it is essential for developing the coding scheme and guiding the coding rules and values for coders (Potter & Levine-Donnerstein 1999). Therefore, once identifying the nature of content and the role of theory in this content analysis, the researcher can develop a valid coding scheme and a set of coding standards.
There are three possible roles of theory that can be used in the analysis: deductive, inductive and the absence of theory (Potter & Levine-Donnerstein 1999). If the researcher begins with a theory, then a methodologically controlled assignment of the theory to a passage of text, this is the deductive role (Mayring 2000). The inductive role refers to the approach beginning with observations of the content, and then to formulate the criterion of definition and to develop the theory by empirical generalisation (Mayring 2000). Some other analyses that are usual for describing a phenomenon have no role for theory. Based on the research design and objectives as discussed in previous sections, the content analysis in this thesis stands within the positivist paradigm and deductive approach. Therefore, the deductive role of theory is applied in this study. In this content analysis, attributes of choice factors are synthesised from literature and used as the theory, then manifest and projective data are coded to these attributes.

**3.5.1.3 Validity**

In content analysis, validity refers to the degree to which the results accurately reflect the intended, and only the intended, concepts and lead us to accept the result as true about the real world (Krippendorff 2013; Neuendorf 2002). There are many types of validity existing in relation to content analysis, which can be fundamentally classified into internal and external validity. Internal validity refers to the classifications as being representative of the hypotheses or as matching between conceptual definitions and measuring definitions (Harwood & Garry 2003; Neuendorf 2002). External validity stands for the generalisation of the results to the population and correspondence with previous and future findings (Harwood & Garry 2003; Neuendorf 2002).

In content analysis, the development of a coding scheme is essential to establishing the validity of the study. The coding scheme is a transition tool to allocate the recorded content into theoretical categories. The validity of content analysis in this research was achieved through the implementation of a two-step process: developing the coding scheme, and comparing the coded result with a standard; as recommended by Potter and Levine-Donnerstein (1999) (see Table 3.3).
First, the researcher focused on developing a coding scheme containing a set of rules which instructs the coders to allocate the content from their observations into the theoretical categories. The challenges of this coding scheme development are how to reduce the complexity of observed content attributes to a limited group of attributes which is manageable and explicit (Potter & Levine-Donnerstein 1999). Thus, the coding scheme is required to be systematic and consistent. Initially, from the theory or theoretical concepts in previous research, the researcher identified the definitions and determined the manifest content items in the texts. A pilot test was conducted to apply this set of manifest elements and detect unexpected differences. Because this study employs the manifest as well as projective content, the pilot test was also identifying other indicators on the surface of the texts beside the primary manifest elements, to instruct the coder in using the same psychological schema. Since the coding scheme had been developed from the pilot test, it was applied to guide the coder in recording the content from the online texts into categories in the coding form.

Second, after developing the coding scheme and conducting initial coding decisions, a standard for coded data was applied to compare these coding decisions. The coding results were accepted if they matched the criteria of this standard. For the manifest content, the standard is the objective criteria which clearly exist in the surface of the texts. For the projective content, the norms agreed among coders were used as the standard (Potter & Levine-Donnerstein 1999). Indeed, if the coders made their subjective interpretation separately and this led to high consistency across the judgements, we have achieved intersubjectivity. Therefore, the standard of intersubjectivity was reviewed by coders and the research supervisors, who are recognised scholars and experienced higher education marketing researchers. This standard was also applied to testing the accuracy type of reliability discussed in the next section.

3.5.1.4 Reliability

Since objectivity is often the main issue of content analysis, reliability is an important assessment for content analysis. The reliability can be defined as the extent to which the measuring procedure yields the same results with repeated measurements or
measurements under different circumstances (Krippendorff 2013; Neuendorf 2002). Reliability can be classified into three distinctive types in content analysis: stability, reproducibility and accuracy (Harwood & Garry 2003; Krippendorff 2013; Potter & Levine-Donnerstein 1999):

Stability refers to the degree to which a process is immutable, and the extent to which the measurement yields the same results on repeated trials (Krippendorff 2013). When a coder repeats the content judgment tasks, the results should be the same as the previous judgements. Thus, stability requires a test-retest procedure (Krippendorff 2013). For stability, the researcher conducted multiple pilot tests before the main data collection stage. The online content was collected within a limited time frame and copied to Excel files for coding and analyses. This process is essential for online content analysis because the content on websites is generally unstable (Weare & Lin 2000).

Reproducibility is the extent to which the process can be duplicated under different circumstances, e.g. different analysts, location or conditions (Krippendorff 2013). The reproducibility requires the test-test procedure which uses different coders (Potter & Levine-Donnerstein 1999). Therefore, in this study, two coders were involved to make judgements on the same source of content. In the pilot test, the coding scheme was discussed between coders. During the coding process, each coder worked separately, and the differences were reviewed and discussed to reach agreement. The coding items that could not be agreed upon were removed from the analysis.

Accuracy refers to the process of conforming to a known standard, or yielding what it is designed to yield (Krippendorff 2013). This study applied the standard established from the norms agreed among the coders, as discussed in the previous section about validity assessment. Therefore, this standard of intersubjectivity contributes to increasing the level of validity of the analysis and the reliability of the research findings.

3.5.2 Sampling procedure

The purpose of this study is to explore the choice factors of students through their communications. Although the main concern of WOM studies is the difficulty of observing private conversations, researchers can use online conversations as a source
of collecting data (Godes & Mayzlin 2004). Online platforms are suitable data sources as students often communicate on social media (Mangold & Smith 2012). As the units of analysis are questions by students regarding higher education, the data sample should be collected on social media in which students can seek information and ask questions.

Sampling is one of the critical decisions in online content analysis. The sampling plan has to assure that the chance of being represented in the sample has to be the same among the units (Krippendorff 2013). This requirement for rigour in drawing a sample might be one of the most difficult issues when applying the online content analysis (McMillan 2000). The sampling issue is more complicated in this context, because there is no unique social media channel or online community in which people are discussing about higher education choice. Indeed, prospective students can ask and discuss about their university intention in any online channels and social media websites where they have membership. Consequently, the randomness of sampling appears to be unaffordable; hence this research utilises a nonprobability, judgement sampling approach. Therefore, of social media platforms, the researcher decided to focus on the social question-and-answer (Q&A) sites, where the chance of finding questions, discussions and opinions regarding education is higher.

Social Q&A site is one of the applications of user-generated content in the era of Web 2.0 (Gazan 2011). Different from library-based reference services or ask-an-expert services, all users on social Q&A sites can ask, answer, rate, comment and share content on the web environment (Gazan 2011). The high level of interactivity or WOM activity on social Q&A sites presents opportunities to understand the opinions and concerns of users in light of educational issues. A preliminary stage of this study involved searching and visiting Q&A websites such as Quora, Yahoo Answers, and Answers.com, to select a medium containing most appropriate data for this study (Gazan 2011). From this examination, Quora (www.quora.com) was chosen as the most appropriate Q&A site for this research context for two reasons. First, Quora’s interface and process of using it is more simple and user-friendly than other Q&A sites, because it focuses on social connections like other well-known social networking platforms (Ovadia 2011). The Quora feed is similar to a Facebook newsfeed where users can see updates from friends and trending topics. Users of Quora can follow the questions or
other individuals, vote for answers, and customise their topics. The questions in Quora are ‘tagged’ in one or multiple sub-topics so that the users and researchers can easily to find them in a relevant topic. Second, the preliminary analysis found that there are more questions and topics specific to Australian universities on Quora than on other Q&A sites. The categorisation system used by Quora also contains topics about Australian higher education in general as well as specific topics for each Australian university.

The term ‘unit of analysis’ or ‘context unit’ refers to the context from which recording units are drawn (Krippendorff 2013). The unit of analysis in this study is the question on the social Q&A site. Quora is a multi-topic Q&A community, so that the questions vary among many topics. Considering each question is classified into one or multiple topics, the researcher looked for topics related to higher education and universities in Australia. Therefore, the researcher initially used the Quora search engine to find the topics likely to contain the required data. The keywords used to search the topics are ‘Australia’ combining with ‘higher education’, ‘university’, ‘education’. After excluding topics containing less than five questions, three topics were retained: ‘Colleges and Universities in Australia’, ‘Education in Australia’ and ‘Study in Australia’. The topics of each Australian university were also selected to collect questions from potential students about specific universities. All topics and the number of items collected from each topic are listed in Table 3.2.

**Table 3.2: Selected topics in Quora**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Code</th>
<th>Number of Question</th>
<th>Date of Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education in Australia</td>
<td>Edu Aus</td>
<td>106</td>
<td>25/01/2016</td>
</tr>
<tr>
<td>Study in Australia</td>
<td>Study Aus</td>
<td>52</td>
<td>26/01/2016</td>
</tr>
<tr>
<td>Universities and Colleges in Australia</td>
<td>Uni Aus</td>
<td>225</td>
<td>23-24/01/2016</td>
</tr>
<tr>
<td>RMIT University</td>
<td>RMIT</td>
<td>66</td>
<td>27/01/2016</td>
</tr>
<tr>
<td>Victoria University</td>
<td>VU</td>
<td>13</td>
<td>29/01/2016</td>
</tr>
<tr>
<td>University of Wollongong</td>
<td>UW</td>
<td>14</td>
<td>29/01/2016</td>
</tr>
<tr>
<td>University Name</td>
<td>Abbreviation</td>
<td>Rank</td>
<td>Date</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>--------------</td>
<td>------</td>
<td>------------</td>
</tr>
<tr>
<td>University of Western Australia</td>
<td>UWA</td>
<td>11</td>
<td>29/01/2016</td>
</tr>
<tr>
<td>University of Technology Sydney</td>
<td>UTS</td>
<td>46</td>
<td>29/01/2016</td>
</tr>
<tr>
<td>University of Adelaide</td>
<td>UA</td>
<td>15</td>
<td>29/01/2016</td>
</tr>
<tr>
<td>Swinburne University of Technology</td>
<td>SUT</td>
<td>21</td>
<td>29/01/2016</td>
</tr>
<tr>
<td>Queensland University of Technology</td>
<td>QUT</td>
<td>14</td>
<td>29/01/2016</td>
</tr>
<tr>
<td>Macquarie University</td>
<td>Mac</td>
<td>26</td>
<td>29/01/2016</td>
</tr>
<tr>
<td>Deakin University</td>
<td>DU</td>
<td>45</td>
<td>29/01/2016</td>
</tr>
<tr>
<td>University of Sydney</td>
<td>USyd</td>
<td>113</td>
<td>29/01/2016</td>
</tr>
<tr>
<td>University of Queensland</td>
<td>UQ</td>
<td>52</td>
<td>28/01/2016</td>
</tr>
<tr>
<td>University of New South Wales</td>
<td>UNSW</td>
<td>80</td>
<td>28/01/2016</td>
</tr>
<tr>
<td>Australian National University</td>
<td>ANU</td>
<td>66</td>
<td>28/01/2016</td>
</tr>
<tr>
<td>La Trobe University</td>
<td>LTU</td>
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<td>28/01/2016</td>
</tr>
<tr>
<td>Monash University</td>
<td>Monash</td>
<td>62</td>
<td>27/01/2016</td>
</tr>
<tr>
<td>University of Melbourne</td>
<td>UMel</td>
<td>233</td>
<td>26/01/2016</td>
</tr>
<tr>
<td>Australian Catholic University</td>
<td>ACU</td>
<td>1</td>
<td>5/02/2016</td>
</tr>
<tr>
<td>Bond University</td>
<td>Bond</td>
<td>4</td>
<td>5/02/2016</td>
</tr>
<tr>
<td>Central Queensland University</td>
<td>CQU</td>
<td>2</td>
<td>5/02/2016</td>
</tr>
<tr>
<td>Charles Darwin University</td>
<td>CDU</td>
<td>4</td>
<td>5/02/2016</td>
</tr>
<tr>
<td>Charles Sturt University</td>
<td>CSU</td>
<td>0</td>
<td>5/02/2016</td>
</tr>
<tr>
<td>Curtin University</td>
<td>CU</td>
<td>6</td>
<td>5/02/2016</td>
</tr>
<tr>
<td>Edith Cowan University</td>
<td>ECU</td>
<td>9</td>
<td>5/02/2016</td>
</tr>
<tr>
<td>Federation University</td>
<td>FeU</td>
<td>2</td>
<td>5/02/2016</td>
</tr>
<tr>
<td>Flinders University</td>
<td>FIU</td>
<td>4</td>
<td>5/02/2016</td>
</tr>
<tr>
<td>Griffith University</td>
<td>GU</td>
<td>10</td>
<td>5/02/2016</td>
</tr>
<tr>
<td>James Cook University</td>
<td>JCU</td>
<td>4</td>
<td>5/02/2016</td>
</tr>
<tr>
<td>Murdoch University</td>
<td>MurU</td>
<td>6</td>
<td>5/02/2016</td>
</tr>
</tbody>
</table>
3.5.3 Data collection and analysis procedure

The Internet environment has provided an open opportunity for content analysts to collect from this rich source of data, but the changing nature of the online environment has also raised the timing issue so that the analysts have to collect the online texts within a narrow time frame (Krippendorff 2013; McMillan 2000). Hence, a sample of 150 questions was collected during the first week of January 2016 to be used in the pilot testing process. Then, the data collection process was conducted within two weeks from January 2016 to February 2016. The coders are the researcher himself and another PhD candidate who also has knowledge and experience in the higher education context. Firstly, the coders analysed 150 questions of the pilot testing based on the coding frame. After that, the coders had one week to review the data and discuss the differences of coding to revise the coding scheme and standard. Secondly, the coders worked independently in the coding process and the differences were discussed after the coding stage. The final interpretation and report were conducted by the researcher.
The recording process for pilot tests and the main stage were administered by the researcher and using Excel software. All questions and answers were collected manually from the selected topics within the designed time frame. Each question and answer were copied and pasted into an Excel sheet as a coding form. Then, a copy of this coding form was sent to the other coder to make judgements independently. The coders then marked the textual items into designed categories (see Table 3.3).

The categories were identified from an extensive literature review, which is presented in Paper 5. Despite applying the deductive approach, the theory of students’ choice factors used in this analysis is a group of attributes summarised from previous studies, thus this group of attributes could be extendable. The categories are therefore not limited to these attributes and new categories could be explored from the data. This is also suitable to the decision to collect projective content, because this nature of the content means it can be used for deduction of codes from weak theories (Potter & Levine-Donnerstein 1999). When the coding process was concluded, the researcher analysed the results and reported the findings. The findings from this content analysis are presented in Paper 5.

Table 3.3: Categories of choice factors used for content analysis

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Attributes</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reputation</td>
<td>University Reputation</td>
<td>Baker and Brown (2007); Briggs (2006); Imenda et al. (2004); Mazzarol and Soutar (2002); Moogan et al. (2001); Soutar and Turner (2002); Simões and Soares (2010); Veloutsou et al. (2004)</td>
</tr>
<tr>
<td></td>
<td>Degree Reputation</td>
<td>Imenda et al. (2004); Mazzarol and Soutar (2002); Simões and Soares (2010)</td>
</tr>
<tr>
<td></td>
<td>Ranking</td>
<td>Cho et al. (2008)</td>
</tr>
<tr>
<td></td>
<td>Image</td>
<td>Imenda et al. (2004); Pampaloni (2010)</td>
</tr>
<tr>
<td>Career Prospect</td>
<td>Post-degree Employment Prospects</td>
<td>Bonnema and Van der Waldt (2008); Briggs (2006); Imenda et al. (2004); Mazzarol and Soutar (2002); Soutar and Turner (2002); Veloutsou et al. (2004)</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Course and Teaching</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Flexibility</td>
<td>Chapman (1981); Imenda et al. (2004); Mazzarol and Soutar (2002); Price et al. (2003); Soutar and Turner (2002)</td>
<td></td>
</tr>
<tr>
<td>Course Content</td>
<td>Bonnema and Van der Waldt (2008); Moogan et al. (2001); Veloutsou et al. (2004)</td>
<td></td>
</tr>
<tr>
<td>Teaching Quality</td>
<td>Briggs (2006); Soutar and Turner (2002)</td>
<td></td>
</tr>
<tr>
<td>Quality of Staff</td>
<td>Briggs (2006); Imenda et al. (2004); Mazzarol and Soutar (2002)</td>
<td></td>
</tr>
<tr>
<td><strong>Administration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Types of University</td>
<td>Soutar and Turner (2002);</td>
<td></td>
</tr>
<tr>
<td>Administrative Efficiency</td>
<td>Imenda et al. (2004)</td>
<td></td>
</tr>
<tr>
<td>Entrance Standard / Requirements</td>
<td>Briggs (2006); Imenda et al. (2004); Mazzarol and Soutar (2002)</td>
<td></td>
</tr>
<tr>
<td><strong>Student Life</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University Resources / Facilities</td>
<td>Dao and Thorpe (2015); Mazzarol and Soutar (2002); Price et al. (2003); Veloutsou et al. (2004)</td>
<td></td>
</tr>
<tr>
<td>Psychosocial Life (climate)</td>
<td>Bonnema and Van der Waldt (2008); Briggs (2006); Cho et al. (2008); Mazzarol and Soutar (2002); Soutar and Turner (2002); Veloutsou et al. (2004)</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Briggs (2006); Mazzarol and Soutar (2002); Moogan et al. (2001); Soutar and Turner (2002); Simões and Soares (2010)</td>
<td></td>
</tr>
<tr>
<td>Cost of Living</td>
<td>Mazzarol and Soutar (2002); Veloutsou et al. (2004)</td>
<td></td>
</tr>
</tbody>
</table>

### 3.6 Cross-Sectional Survey Design

The research design justifies the usage of cross-sectional survey for research questions in Papers 2, 3 and 4. The study in Paper 4 is basically a descriptive analysis of choice factors across segments, which uses the choice factors summarised from higher education literature, so that the instrument design and measurement scale validation do
not apply for this study. Papers 2 and 3 are the analytical studies, so the development of survey approach needs to be carefully designed. This section presents the development of the questionnaire survey and measurement validation for constructs examined in Papers 2 and 3. Therefore, the following sections present the operationalisation of constructs, the sampling procedure and data collection, and the validation of measurement models.

3.6.1 Survey questionnaire development

The design of the questionnaire was based on the literature on the related concepts and the validated measurement scales in marketing and WOM research. The adopted scales were pretested and slightly modified to align them with the topic and research context. In this research, the survey questionnaire development involved three key components: operationalisation of constructs; questionnaire design; and survey pre-testing and translation. The following three sections discuss the development of the survey questionnaire in more detail.

3.6.1.1 Operationalisation of constructs

A review of literature identified more than one measurement scale that could be used for each construct. To select the most appropriate measurement instrument for the questionnaire, the scales were considered and selected based on the relevance to the concepts and their popularity in the WOM research domain. The scales were adapted for the research context, but the original meaning of each item was maintained.

Scales for WOM Influence and Active WOM Seeking were adapted from the scales and items description of Bansal and Voyer (2000), a popular paper on WOM processes in services context. To measure for source characteristics, scales for Source Expertise and Source Trustworthiness were fully adopted from Ohanian (1990), while the Opinion Leadership scale was adapted from particular studies of opinion leadership (Childers 1986; Iyengar et al. 2011; King & Summers 1970; Stokburger-Sauer & Hoyer 2009). Tie Strength and Homophily scales were adopted from Frenzen and Davis (1990) and Sweeney et al. (2014). As there is no available scale for Message Quality, and in line with the meaning of the construct, the scale for Message Quality was adapted from two
message content subscales measuring the power of individual messages by Sweeney et al. (2012). A scale for Message Delivery was adapted from the strength of delivery scale of Sweeney et al. (2012) and included in the questionnaire however the scale was not utilised during model development for empirical papers due to the poor validity measures of this scale. Lastly, the scale of Involvement was adapted from Zaichkowsky (1985). All constructs were conceptualised as being of a reflective nature and measured by seven-point Likert scale. The full list of measurement items is presented in Table 3.4.

Table 3.4: Measurement scale items

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>Scale range</th>
<th>Adapted from</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active WOM seeking</td>
<td>I explicitly requested information from this person to help with my choice of university.</td>
<td>Strongly Disagree – Strongly Agree</td>
<td>Bansal and Voyer (2000)</td>
</tr>
<tr>
<td></td>
<td>I made a number of attempts to gather information from this person to help with my choice of university.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source Expertise</td>
<td>This person is an expert.</td>
<td>Strongly Disagree – Strongly Agree</td>
<td>Ohanian (1990)</td>
</tr>
<tr>
<td></td>
<td>This person is experienced.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This person is knowledgeable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This person is qualified.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This person is skilled.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source Trustworthiness</td>
<td>This person is dependable.</td>
<td>Strongly Disagree – Strongly Agree</td>
<td>Ohanian (1990)</td>
</tr>
<tr>
<td></td>
<td>This person is honest.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This person is reliable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This person is sincere.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This person is trustworthy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opinion leadership</td>
<td>In general, I talk with this person very often about my choice of university.</td>
<td>Strongly Disagree – Strongly Agree</td>
<td>Childers (1986); King and Summers (1970)</td>
</tr>
<tr>
<td></td>
<td>This person provided me with a great deal of information about universities.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
During the past six months, I think this person has talked with a lot of people about universities.
Compared with other people, I think this person is often asked about universities.
In a discussion about universities with this person, I am more likely to receive information from them than I provide in return.
In general, I often use this person as a source of advice.

<table>
<thead>
<tr>
<th>Source Closeness</th>
<th>I usually spend free time with this person. (Tie Strength)</th>
<th>Strongly Disagree – Strongly Agree</th>
<th>Frenzen and Davis (1990); Sweeney et al. (2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I can share my personal thoughts with this person. (Tie Strength)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I try to help this person whenever I can. (Tie Strength)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This person has a close relationship with me. (Homophily) (Tie Strength)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>We have a similar outlook on life. (Homophily)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>We share common interests. (Homophily)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>We have similar likes and dislikes. (Homophily)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WOM Influence</th>
<th>This conversation has a significant influence on my university choice decision.</th>
<th>Strongly Disagree – Strongly Agree</th>
<th>Bansal and Voyer (2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This conversation mentioned helpful things I had not considered.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This conversation provided some different ideas than other sources.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This conversation really helped me make the decision about selecting a university.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Message Quality</td>
<td>The message was informative.</td>
<td>Strongly Disagree – Strongly Agree</td>
<td>Sweeney et al. (2012)</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------</td>
<td>------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td></td>
<td>The message was reliable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was clear.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was specific.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was elaborate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was explicit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was intense.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was reinforcing.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message Delivery</th>
<th>The message was powerfully delivered.</th>
<th>Strongly Disagree – Strongly Agree</th>
<th>Sweeney et al. (2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The message was delivered in a strong way.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was delivered in an important manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was delivered using strong words.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valence</th>
<th>Was the information / advice you received:</th>
<th>Extremely negative – Extremely Positive</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Task Involvement</th>
<th>Selecting the right university is very important to me.</th>
<th>Strongly Disagree – Strongly Agree</th>
<th>Zaichkowsky (1985)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Attending university will be very valuable to me.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attending university will be very beneficial to me.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The process of selecting a university is very exciting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I really want to attend university.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.6.1.2 Questionnaire design

As the questionnaire is self-administered and the participants completed it voluntarily, the format and layout were important to achieve a high volume of completed responses (Brace 2004). The layout and format of the questionnaire sections, item sequence, wording and survey instructions were carefully checked by the researchers for logical coherence and smooth transition (Brace 2004). The questionnaire started with general information about the research, instructions on how to complete the questionnaire, and other participant information as required by the university ethics protocol. The screening questions at the beginning of the questionnaire ensured that all respondents were high-school students who were considering universities to apply to. The brief explanation about WOM and two open questions provided an opportunity for respondents to clearly understand the concept, and the researcher would be able to check their understanding based on the answers of two open questions. The full structure of the questionnaire is summarised in Table 3.5.

Table 3.5: Structure of the questionnaire

<table>
<thead>
<tr>
<th>Section</th>
<th>Constructs</th>
<th>No. of items</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background information</td>
<td>• Screening questions about the current grade of students, intention to attend university, and the expected type, location of university</td>
<td>3</td>
<td>Multiple-choice questions</td>
</tr>
<tr>
<td>Sources of information</td>
<td>• A multiple-item question about the information sources which prospective students prefer</td>
<td>11</td>
<td>Likert-scale question</td>
</tr>
<tr>
<td></td>
<td>• Brief explanation about WOM, and two open questions about the associated WOM communication</td>
<td></td>
<td>Open questions</td>
</tr>
<tr>
<td>The associated WOM communication</td>
<td>• Two multiple-item questions about the active seeking behaviour and the influence of the associated WOM communication</td>
<td>11</td>
<td>Likert-scale questions</td>
</tr>
<tr>
<td></td>
<td>• A multiple-item question about the context of WOM (offline/online, verbal/written)</td>
<td></td>
<td>Multiple-choice question</td>
</tr>
<tr>
<td>WOM source</td>
<td>• Multiple-item questions about source expertise, source trustworthiness, source closeness, opinion leadership</td>
<td>23</td>
<td>Likert-scale questions</td>
</tr>
</tbody>
</table>
| WOM message | • Multiple-item questions about message content and message delivery  
|           | • A question about message valence  
|           | • Multiple-item questions about the congruence of message to receiver expertise and to considering factors | 19 | Likert-scale questions |
| Choice factors | • A multiple-item question about how important is each choice factor  
|           | • A question about which choice factor information is delivered via WOM | 22 | Likert-scale question  
|           | Multiple-choice question |
| Task involvement | • A multiple-item question about the involvement of prospective students in the decision-making process | 5 | Likert-scale question |
| Demographics | • Questions about age, gender, type of future degree, education level of other family members | 5 | Multiple-choice questions |

### 3.6.1.3 Pre-testing and translation

The purpose of the pretesting stage was to improve the reliability of the survey instrument through interviewing members of the target population who had tested the instrument, as well as consulting experts on the relevance of the included items. The pre-testing and translation of the questionnaire was conducted in three stages: first, testing the original English instrument with Australian respondents; second, translating and testing the translated instrument with Vietnamese academics and educators; and finally, testing the Vietnamese instrument with Vietnamese respondents.

On the first stage of pre-testing, the questionnaire was sent to ten high school students who are studying in Victoria, with an invitation letter including an explanation of the pre-testing purpose. After two weeks, five completed responses were returned with the comments and suggestions to edit the wording to be more relevant to the language used by teenagers. The questionnaire was revised based on this pre-testing feedback.
The back-translation approach was employed to translate the questionnaire into Vietnamese. The questionnaire was first translated by a translator into Vietnamese, and then another translator took the result and translated back into English (McGorry 2000). After discussion on the inconsistencies, the English and Vietnamese versions of the questionnaire were sent to five Vietnamese academics to cross-check the corrections of the translation. These experts have experience in questionnaire design and provided feedback on the translation.

The translated questionnaire was sent to five high school students in Vietnam who were asked to check the language used by Vietnamese teenagers and their understanding of the content of the questionnaire in the Vietnamese context. After two weeks, five completed responses were received, and the questionnaire was modified based on the feedback.

### 3.6.2 Sampling and data collection

As the unit of analysis of this research is the individual prospective student, the target population of this survey are final-year high school students who are considering applying for a university. The sample size for this research was guided by the limitation of the sampling frame and the suggested requirements of the data analysis. Hair et al. (2006) recommend that a minimum sample size of approximately 300 respondents satisfies the minimum requirements of SEM analysis. A convenience sampling approach was employed, with data collection occurring in both Australia and Vietnam. The sampling and data collection plan was adjusted to be suitable to the conditions in each location.

For the survey in Australia, an online distribution method was used to collect the data. Online questionnaires are a feasible data collection tool for research in large samples of respondents. This method was also suitable as the target population of this survey are final-year high school students, a segment with high levels of social media and online technology use. The questionnaire was designed using the Qualtrics survey tool and was shared via social media, as well as the invitation leaflets delivered at the Open Days of La Trobe University, RMIT University, the University of Melbourne and Victoria
University. The Qualtrics questionnaire design software is freely available to RMIT researchers to support the use of web-based survey research for university-related work. This enabled the setup of the web-based survey tool at no cost. The online questionnaire distribution in Victoria turned out 70 respondents in total, with the results reported in Paper 4.

In Ho Chi Minh City, Vietnam, the questionnaires were directly distributed at three high schools, with the support of Department of Education and Training of Ho Chi Minh City. The Department approved the request from the candidate and introduced the researchers to three large high schools: Nguyen Thi Minh Khai high school, Trung Vuong high school and Tran Dai Nghia high school. A total of 1500 questionnaires were distributed to the final-year students at these high schools (500 for each). After a one-week data collection period, a total of 536 completed questionnaires were returned, equivalent to a 35.73 per cent response rate.

### 3.6.3 Data analysis procedure

Multiple statistical procedures were involved in the quantitative data analysis:

- Data screening and preparation using SPSS
- Cronbach’s alpha and correlation analysis: reliability test of multi-item scales using SPSS
- Exploratory actor analysis (EFA) using SPSS and Confirmatory factor analysis (CFA): validity and unidimensionality test using AMOS
- Testing the interrelationships among a set of constructs (variables) and the overall conceptual model: Covariance-based structural equation modelling (SEM) using AMOS
- Testing the mediation and indirect effects using the SPSS macro PROCESS (Hayes 2013)

#### 3.6.3.1 Data screening

In preparation for the data analysis, the data collected were subjected to an initial examination, and then edited, coded and cleaned in the following steps (Hair et al.
First, the data were transferred from Qualtrics into a Microsoft Excel file and manually checked for irrelevant cases (e.g. unfinished questionnaires or cases that did not fit the sample frame). The data formatting and variable names were then adjusted and coded according to a naming convention suitable for importation into the statistical software package, which in this study was SPSS. The data were then proofread to ensure the accuracy of the names, values and types of variables (Tabachnick & Fidell 2007). Second, the dataset was scanned for missing values. The four-step process proposed by Hair et al. (2006) was employed to deal with the missing values. Cases with missing values for dependent variables and cases with the percentage of missing data being greater than five per cent were excluded from the data. Third, the items were tested for the normality of distribution: the values for skewness and kurtosis fell within the acceptable -3 and +3 range (Tabachnick & Fidell 2007).

For the studies in Papers 2 and 3, the Vietnamese dataset was used independently for the data analysis. For the study in Paper 4, both English and Vietnamese datasets were combined at the data screening stage. A single and unique variable was consistently used for the same item in English and Vietnamese dataset. The combined dataset was then processed as described.

**3.6.3.2 Validity and reliability of constructs**

**Validity and reliability**

To assess the quality of the research instrument, the reliability and validity of constructs were evaluated. To assess the reliability of the measures, the Cronbach’s alpha was examined. This is the most commonly used reliability coefficient for internal consistency. The Cronbach’s alpha was assessed by SPSS, where the value closer to 1 indicates stronger reliability. All measures in this study demonstrated a Cronbach’s alpha greater than 0.7, indicating strong reliability of the measures.

The construct validity was evaluated by two dimensions: the convergent validity and discriminant validity. Convergent validity refers to the extent to which the items or indicators of a particular construct share a significantly high proportion of correlations among each other (Hair et al. 2006). In contrast, discriminant validity refers to the
dissimilarity of measurements of different constructs. While convergent validity suggests a high degree of correlation for observed variables of the same factor, discriminant validity indicates that the items of different latent variables should exhibit a low degree of relatedness or correlation between each other. Both convergent validity and discriminant validity were assessed through the confirmatory factor analysis, which is described in the next section.

**Measurement models**

To assess the measurement models, a CFA was built in AMOS to test the validity of constructs and the goodness-of-fit indices. A measurement model is applied to describe a series of relationships that advocate how measured variables indicate a construct that is not measured directly (Hair et al. 2006). Confirmatory factor analysis (CFA) is a popular technique which builds a measurement model that specifies relationships among the observed variables underlying the latent variables (Tabachnick & Fidell 2007). This study employed CFA for measurement model assessment.

To assess the convergent validity, the average variance extracted (AVE) values are commonly used (Fornell & Larcker 1981). An AVE value of less than 0.5 is considered insufficient for the overall fit of the model, as more variance is due to error variance than to indicator variance. Composite reliability (CR) is also a tool to further assess the convergent validity (Fornell & Larcker 1981). For the discriminant validity of the constructs, the correlation of the items within individual constructs must be significant and greater than the correlation of the items between different constructs. In other words, a required condition for discriminant validity is that a latent variable’s AVE has to be greater than the common variances (squared correlations) of this latent variable with any other constructs in the model (Fornell & Larcker 1981). Because this thesis includes empirical studies, the measurement model for each study was developed, and all assessment of convergent validity and discriminant validity were passed. After having checked for validity, further validation of the overall measurement model can be done by assessing goodness-of-fit measures. There are two measurement models within this research, developed in Papers 2 and 3. The assessment results of these two
measurement models are presented in Tables 5.1 and 6.1. The criteria of model fit are presented in Table 3.6 (Hair et al. 2006; Hu & Bentler 1999).

Table 3.6: Goodness-of-fit criteria

<table>
<thead>
<tr>
<th>Name</th>
<th>Abbreviation</th>
<th>Type of goodness-of-fit</th>
<th>Acceptable level in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square (with associated degrees of freedom and probability of significant difference)</td>
<td>$x^2 (df, p)$</td>
<td>Model fit</td>
<td>$p &gt; 0.05$ (at $\alpha$ equals to 0.05 level)</td>
</tr>
<tr>
<td>Relative Chi-square</td>
<td>Cmin/df or $x^2/df$</td>
<td>Absolute fit and model parsimony</td>
<td>$1.00 &lt; x^2/df &lt; 3.00$</td>
</tr>
<tr>
<td>Root Mean Square of Error of Estimation</td>
<td>RMSEA</td>
<td>Absolute fit</td>
<td>RMSEA &lt; 0.05 is good. RMSEA &lt; 0.10 is reasonable.</td>
</tr>
<tr>
<td>Tucker-Lewis Index</td>
<td>TLI</td>
<td>Incremental fit</td>
<td>TLI closes to 0.90 is good.</td>
</tr>
<tr>
<td>Normed Fit index</td>
<td>NFI</td>
<td>Incremental fit</td>
<td>NFI closes to 0.90 is good.</td>
</tr>
<tr>
<td>Comparative Fit index</td>
<td>CFI</td>
<td>Incremental fit</td>
<td>CFI closes to 0.90 is good.</td>
</tr>
</tbody>
</table>

Source: Hair et al. (2006); Hu and Bentler (1999)

3.6.4 Structural equation modelling

After the assessment of the measurement models, path models were built to illustrate the relationships among constructs. Structural Equation Modelling (SEM) was used to analyse the quantitative data from the survey. SEM is a powerful multivariate technique, which can analyse multi dependent relationships concurrently, while other techniques are only able to analyse a single relationship. The covariance-based approach of SEM was utilised in the empirical studies of this research through AMOS (Byrne 2010). The path analysis using SEM was employed in empirical studies of this thesis (Papers 2 and
3). The results of these SEM analyses are reported and discussed in Sections 5.5 and 6.5.

3.7 Chapter Summary

This chapter presented the philosophical stance and the design of two methods utilised in this research. As the positivist paradigm is applied in this research, content analysis and cross-sectional survey were selected as the two research methods. The design and procedure of these two methods were described in this chapter. Content analysis design includes the consideration of content analysis foundational issues, sampling procedure, data collection and analysis procedure. Cross-sectional survey design is comprised of questionnaire development, sampling and data collection, and data analysis procedure. Results of the content analysis are presented in Paper 5 (Chapter 8). Results of the cross-sectional survey are presented in Papers 2, 3 and 4 (Chapters 5, 6 and 7).
Chapter 4: Paper 1

The WOM Processing Framework: a revised conceptualisation

Abstract

WOM communication is considered an important source of information for consumers. Factors that lead to WOM influence have been categorised into three essential elements in existing frameworks and empirical studies, equivalent to the three elements of communication processing: source, receiver, and message. However, there is no conceptual framework that demonstrates the relationships among the factors of WOM from an information processing perspective. Furthermore, there is limited discourse on the situation and channel of the communication. This paper reports the insights obtained from an extensive literature review, and presents an integrative WOM Processing Framework encompassing the factors of source, receiver, message, situation and channel. Research propositions and recommendations for further research into WOM processing are offered.

Keywords: Word-of-mouth, information processing, ELM, WOM receiver, WOM influence
4.1 Introduction

WOM communication is prevalent in daily life, as people share experiences, review services used, and discuss brands or organisations. WOM is considered an effective source of pre-purchase information. Consumers perceive it to be more persuasive and trustworthy than information conveyed via other commercial media such as printed or television advertising (Chawdhary & Dall’Olmo Riley 2015; East et al. 2007; Mourali et al. 2005), as WOM has been proven to have an impact on consumer’s purchase intentions (Martin & Lueg 2013) and sales (Chevalier & Mayzlin 2006). Furthermore, firm-induced WOM campaigns or WOM marketing has been an effective tool of marketers (Buttle & Groeger 2017).

The WOM literature, to date, has identified numerous factors involved in information processing when consumers receive WOM messages. These factors primarily relate to communication elements such as source characteristics (e.g. Martin & Lueg 2013), receiver characteristics (e.g. Park & Kim 2008) and message characteristics (e.g. Herr et al. 1991). However, existing WOM research has focused on the impact of individual constructs with little consideration for conceptualising the information processing of WOM (e.g. Bansal & Voyer 2000; Martin & Lueg 2013). Thus, less is known about the procedural aspects of WOM communication and the integration of WOM factors.

Within the scope of WOM literature, a few conceptual frameworks of WOM influence have been developed to identify the factors that influence the impact of WOM on receivers (e.g. Bansal & Voyer 2000; Martin & Lueg 2013; Sweeney et al. 2008), which usually include factors related to the source, receiver, and message. However, there are two main foundational limitations to these existing frameworks: first, these frameworks were developed to identify the factors influencing the outcome of WOM; and second, the frameworks are based on either traditional WOM or single source, one-way electronic WOM (hereafter, eWOM).

First, focussing on the outcome of WOM means the suggested frameworks are not able to demonstrate the processing of WOM from receiver perspective. From an information processing perspective, models of WOM should identify the mutual
relationships among factors, not just their effects on WOM outcomes, the latter which are the focus of prior empirical studies (e.g. Mahapatra & Mishra 2017) and existing conceptual frameworks (e.g. Sweeney et al. 2008). Furthermore, message quality and consumer knowledge are known to affect WOM outcomes, but the effect of consumer knowledge is inconsistent in the literature. This inconsistency might be because of the relationships of consumer knowledge to other factors. For example, consumer knowledge may shape message evaluation, yet this relationship is rarely examined (Park & Kim 2008). Thus, understanding WOM processing is critical because it can provide deeper insights into the roles of existing factors.

The absence of an information processing perspective in the existing conceptual work on WOM is likely due to the current frameworks (e.g. Bansal & Voyer 2000; Martin & Lueg 2013; Sweeney et al. 2008) not including communication theories in their conceptual development, and as such, the nature and role of relationship formation and development from the WOM context are lacking. Some studies utilise the ELM to examine the message and source credibility (e.g. Cheung et al. 2008). However, they do not fully investigate other factors in ELM theory which are associated with situational and communication contexts (e.g. participation, distraction, relevance) and thus these factors are yet to be investigated in WOM research.

Second, frameworks built during traditional or pre-Web 2.0 eWOM are not able to account for the current digital era which is comprised of multiple communication media channels and the interactivity afforded by these channels. The digital era diversifies the customer-to-customer interactions and broadens the scope of WOM research (Libai et al. 2010). The current body of eWOM research reflects the importance of this communication in virtual environments. Research on eWOM is mostly independent of traditional WOM; and even within the eWOM domain, empirical studies usually investigate a single source eWOM (e.g. online review, mobile, email). eWOM possesses unique characteristics (King et al. 2014), and the processing factors in online platforms are different from those in offline contexts (Brown et al. 2007). However, these frameworks lack acknowledgement of the role of communication channel factors and their impacts on other processing factors.
According to these two main foundational limitations, a revised conceptual framework is required. The conceptual framework in this paper focuses on proposing additional factors that demonstrate the information processing of WOM communication, and also highlights the channel characteristics in which WOM occurs. Therefore, the framework expands on existing work by illustrating not only the direct effects of the factors on WOM outcomes but also the relationships among the factors.

Based on the ELM theory, the following sections categorise and introduce situational factors, enduring involvement, and channel characteristics, as new factorial groups to better demonstrate WOM processing by receivers. After identifying the main factors of WOM processing, the WOM Processing Framework is established to delineate the relationships among these factors from a holistic perspective. Six propositions are presented to describe the effects of these factors, on WOM influence and each other. The framework and propositions provide a foundation and offer directions for future research.

4.2 Defining WOM Communication

WOM is a broad term describing a variety of communication forms (information, discussion or recommendation) conveyed via different channels (verbal, written or computer-mediated) about a brand, product, or organisation. WOM has traditionally been defined as an informal mode of person-to-person communication between non-commercial parties regarding a brand, product or service (Arndt 1967b).

The emergence of Internet-based media has promoted the development of eWOM, which refers to information regarding a product or company that is made available to a large group of people via the Internet (Hennig-Thurau et al. 2004). The conceptualisation of WOM adopted in this paper refers to all forms and channels, because consumers seek WOM in its various forms during the evaluation process. Consequently, the definition used here combines the work of both Westbrook (1987, p. 261) and Berger (2014, p. 587). WOM is defined as informal communications directed at other consumers about the ownership, usage or characteristics of particular
goods and services or their sellers. This definition includes literal WOM, or face-to-face discussions, as well as ‘word-of-mouse’, or online mentions and reviews.

As the definition of WOM describes both the communicator (or sender) and the receiver as participants in this communication, researchers should investigate the input (sources) and output (mediating constructs and WOM influence on receivers). Examining these opposing perspectives can provide different insights into such communication. Studies based on source perspectives explore source characteristics and the sender’s motivations for spreading the message, while research based on receiver perspectives seeks to reveal receiver characteristics and the outcomes of WOM. Most primary research, however, examines the subject from the perspective of the WOM source (Martin & Lueg 2013; Sweeney et al. 2008). Such research aims to conceptualise WOM as the consequence of service quality and satisfaction (e.g. Anderson 1998; Babin et al. 2005; Brown & Reingen 1987; Harrison-Walker 2001; Wirtz & Chew 2002), or the consequences of WOM for WOM senders, such as self-enhancement and future WOM intentions (e.g. Chawdhary & Dall’Olmo Riley 2015). Less attention has been paid to how receivers incorporate WOM into their purchase considerations and decisions (Martin & Lueg 2013). In fact, our understanding of WOM processing from the receiver perspective is limited. Therefore, to understand the factors of WOM processing, the framework presented in this paper was developed through the lens of the WOM receiver.

4.3 Theoretical Foundation

The ELM suggests that the persuasiveness of communication is determined by both the motivation and ability of receivers to process the messages presented to them (Petty & Cacioppo 1986). The motivation and ability of receivers are determined by the surroundings and their level of engagement in conversations. For example, distraction caused by surrounding noises or boring conversation may make receivers forget or ignore the received messages. Moreover, communication channels can change the motivation and ability of receivers. For example, the perception of an online source might be different from the perception of the same source if the conversation occurs
face-to-face. These examples point to the importance of the characteristics of communication channels and contextual factors in shaping WOM interaction.

First, in previous frameworks and WOM research in general, there has been a lack of attention paid to the nature of WOM channels and interactions (Berger & Iyengar 2013; Libai et al. 2010), although these factors are likely to impact on WOM processing. Receiving information from an online opinion leader and an opinion leader in person might lead to different levels of WOM influence. Thus, we propose an integrative framework that demonstrates the effects of channel characteristics to enhance understanding of WOM processes and the effects of media choice in WOM marketing activities.

Second, regarding the contextual factors, there is a lack of clarity in the literature around the difference between the situational context and the enduring context of the information-gathering task (Huang 2006; Roser 1990). Situational and enduring contexts are different, and both can shape the motivation or ability of receivers to process the information. For example, potential consumers selecting a professional service may be highly involved in the decision-making process, but within a particular conversation, they can be distracted by physical surroundings or uninterested in the information provided, so that the conversation is not processed. In the present paper, we distinguish between the situational factors and enduring involvement factors as different factorial groups.

By considering communication channels and contextual factors, and by incorporating two factorial groups, we advance the work of Sweeney et al. (2008) to develop a more comprehensive model. The next section introduces the categorisation of all factorial groups.

4.4 Categorisation of WOM Factors

In this paper, the factors relating to WOM processing have been classified into four groups of antecedents according to the Hovland (1948) categorisation of the elements of social communication: source, receiver, message and situation (Figure 4.1). This classification advances the model developed by Sweeney et al. (2008), which comprised
personal, interpersonal, message and situational characteristics. In Sweeney et al. (2008), the theoretical development was mostly grounded in offline WOM in the context of a financial service, with interpersonal factors grouped as a main dimension to highlight the mutually interacting and perceiving pairs of communicators, and the bidirectional and interactive nature of traditional WOM (Gilly et al. 1998). In this regard, our conceptualisation proposes that the source group of factors include both the source personal and interpersonal characteristics, because the interpersonal characteristics may be ambiguous in online environments (Brown et al. 2007; Lee & Youn 2009). For example, in some situations, receivers are unable to identify the sender of an online message, so they would not be able to evaluate their tie strength with the sender (Lee & Youn 2009). In this regard, interpersonal factors in online environments are related more to the characteristics of online communities rather than of mutual relationships, such as site tie strength or site homophily (Brown et al. 2007). In addition, the source characteristics include all of the characteristics receivers perceive about a source, yet which may not be the actual characteristics (Wangenheim & Bayón 2004), so that all factors based on the perceptions of receivers, such as perceived source characteristics and perceived relationship characteristics, should be placed into a single group (Figure 4.1).
In relation to situational factors, we divide this group into situational factors as antecedents and enduring involvement factors as moderators (Figure 4.1). The situational factors in the framework of Sweeney et al. (2008) represent these two different factors; thus, enduring involvement should be drawn out and treated separately. This is in line with the literature on communication and information processing in which there is a distinction between situational and enduring involvement concepts (Huang 2006; Roser 1990). WOM happens in a specific context – the situation (Allsop et al. 2007). Situational factors are related to situation-specific, temporary states relevant to the communicative environment (Huang 2006), while enduring involvement incorporates the whole decision-making process. Because of their personal relevance and engagement in the situation, WOM receivers are more likely to be influenced by the information they receive.
Situation is one of four factors that affect consumer information processing, according to Batra and Keller (2016). Thus, we propose that the situational factors have a direct effect on WOM influence (defined and further discussed in Section 4.6). Distinct from situational engagement, which is driven by extrinsic motivations, enduring involvement is intrinsically motivated insofar as the decision-making process is particularly important to the consumer. For example, consumers of medical services are highly involved in the selection process because they perceive the choice as a high-risk decision; therefore, the enduring involvement factors moderate the influence of WOM. This aligns with previous research which has considered the moderating effects of involvement factors in the purchase context (e.g. Martin & Lueg 2013; Wangenheim & Bayón 2004). Therefore, the enduring involvement factors are proposed as moderators in our framework.

We also propose a second moderator of WOM’s impact on the receiver: channel factors. The greater diversity of communication channels resulting from the explosion of the Internet and mobile technologies warrants a broader, multidimensional view of WOM interactions (Libai et al. 2010). However, most WOM research is based on data related to only one channel (Berger & Iyengar 2013). Due to their complexity and diversity, channel characteristics moderate WOM processing and shape the receiver’s perception of other factors.

4.5 Factors of WOM Processing

As discussed above, in the present framework we classify the factors into four groups of antecedents, in relation to source, receiver, message and situation; as well as two groups of moderators, in the case of enduring involvement and channel (Table 4.1). The first three antecedents – source characteristics, receiver characteristics and message characteristics – are the original factors that were identified in prior research. In this section, we review these existing factors and introduce the new factors of situational, enduring involvement and channel characteristics.
<table>
<thead>
<tr>
<th>Group</th>
<th>Factors</th>
<th>Empirical evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Source Characteristics</strong></td>
<td>Credibility: opinion leadership, expertise of source, trustworthiness, prior experience</td>
<td>(Bansal &amp; Voyer 2000; Bone 1995; Chaney 2001; Cheung et al. 2008; Gilly et al. 1998; Martin &amp; Lueg 2013; Reichelt et al. 2014; Wangenheim &amp; Bayón 2004)</td>
</tr>
<tr>
<td></td>
<td>Closeness: perceived tie strength, perceived homophily (similarity)</td>
<td>(Baker et al. 2016; Bansal &amp; Voyer 2000; Chawdhary &amp; Dall’Olmo Riley 2015; Gilly et al. 1998; Reichelt et al. 2014; Voyer &amp; Ranaweera 2015; Wangenheim &amp; Bayón 2004)</td>
</tr>
<tr>
<td><strong>Receiver Characteristics</strong></td>
<td>Expertise (negative effect): knowledge of receiver, prior experience</td>
<td>(Bansal &amp; Voyer 2000; Bone 1995; Gilly et al. 1998; Park &amp; Kim 2008)</td>
</tr>
<tr>
<td><strong>Message Characteristics</strong></td>
<td>Argument quality: vividness of message, strength of delivery, cognitive content</td>
<td>(Cheung et al. 2008; Mazzarol et al. 2007; Sweeney et al. 2012)</td>
</tr>
<tr>
<td></td>
<td>Valence: sidedness of message (positive or negative effect)</td>
<td>(Baker et al. 2016; East et al. 2008; Mangold et al. 1999; Sweeney et al. 2012, 2014)</td>
</tr>
<tr>
<td><strong>Situational Factors</strong></td>
<td>Participation: WOM actively sought, WOM request, situational involvement</td>
<td>(Bansal &amp; Voyer 2000; Chen &amp; Berger 2016; Fang et al. 2011; López &amp; Sicilia 2014)</td>
</tr>
<tr>
<td></td>
<td>Information Congruence: relevance to self-interest and expertise</td>
<td>(Cheung et al. 2008; Yoo et al. 2015)</td>
</tr>
<tr>
<td><strong>Enduring Involvement</strong></td>
<td>Task Involvement: purchase involvement, perceived risk, complexity of decision</td>
<td>(Duhan et al. 1997; Fang et al. 2011; Martin &amp; Lueg 2013; Park &amp; Lee 2009; Voyer &amp; Ranaweera 2015; Wangenheim &amp; Bayón 2004)</td>
</tr>
<tr>
<td></td>
<td>Search Difficulty: source availability, lack of information, lack of time</td>
<td>(Park &amp; Lee 2008)</td>
</tr>
<tr>
<td><strong>Channel Characteristics</strong></td>
<td>Platform: online vs. offline, website types</td>
<td>(Babić Rosario et al. 2016; Baker et al. 2016; Brown et al. 2007; Lee &amp; Youn 2009; Libai et al. 2010)</td>
</tr>
<tr>
<td></td>
<td>Interactivity: oral vs. written, audience size</td>
<td>(Barasch &amp; Berger 2014; Berger &amp; Iyengar 2013; Libai et al. 2010)</td>
</tr>
</tbody>
</table>
4.5.1 Source characteristics

The source characteristics in our framework include the perceived personal and interpersonal characteristics. The personal characteristics of a WOM source determine source credibility. Source credibility refers to the positive characteristics of communicators that enhance a receiver’s acceptance of WOM from that source (Ohanian 1990; Reichelt et al. 2014), and is often considered a component of variables such as expertise, trustworthiness, dynamism and attractiveness (Bansal & Voyer 2000; Bone 1995; Gilly et al. 1998; Martin & Lueg 2013; Wangenheim & Bayón 2004). Moreover, opinion leadership, the most frequently cited construct in the research on the WOM source (Chaney 2001; Iyengar et al. 2011; Myers & Robertson 1972), is related to credibility. Gilly et al. (1998) found that the expertise of the source is correlated with opinion leadership in particular contexts.

Regarding the interpersonal relationship between source and receiver, research into WOM often highlights the influence of factors related to the closeness of source and receiver as the main constructs, such as tie strength and homophily (Voyer & Ranaweera 2015; Wangenheim & Bayón 2004). Tie strength is defined as the closeness of the relationship between communicator and receiver (Brown & Reingen 1987), with strong tie sources usually selected in the case of difficult buying tasks, as they are seen to provide more reliable recommendations (Duhan et al. 1997). Strong tie sources are also likely to encourage receivers to be more actively involved in communications (Bansal & Voyer 2000), and positively influence the likelihood of purchase (Frenzen & Davis 1990). Homophily refers to the similarity or closeness between source and receiver regarding particular attributes, usually linked to demographics, but also to lifestyle, values and preferences (Brown & Reingen 1987; Gilly et al. 1998; Wangenheim & Bayón 2004).

4.5.2 Receiver characteristics

The characteristics and personalities of receivers affect the processing of WOM information. Especially, WOM research highlights the role of consumer expertise in
previous empirical studies (e.g. Dagger & O'Brien 2010; Gilly et al. 1998). The expertise of the WOM receiver includes the knowledge of receiver regarding the product and the prior experience with the context. WOM information can be understood differently by receivers depending on their background and experience with a particular product or service (Sweeney et al. 2008). This experience will determine the relationship quality and loyalty of consumers (Dagger & O'Brien 2010). Thus, the information processing performed by novice and experienced consumers would be different (Park & Kim 2008). Expertise would affect the perceived risk and the need for information from the receiver’s perspective (Bansal & Voyer 2000; Sweeney et al. 2008). The extent of topic knowledge (or expertise) of the receiver determines the outcome of the sender’s attempts at persuasion (Friestad & Wright 1994). In this regard, Herr et al. (1991) found that consumers who have a prior impression about a brand are less affected by WOM information.

4.5.3 Message characteristics

Message characteristics are primary factors in WOM research, as scholars examine the effects of messages on WOM adoption. However, the research focus in this field is fragmented due to the range of issues explored. Researchers have investigated the impact of WOM messages in terms of different types of message (recommendations, complaints, review rates or comments) (Duhan et al. 1997; Harrison-Walker 2001); information content (Patti & Chen 2009); valence or sidedness (ratio of positive to negative views within a message) (East et al. 2008; Williams & Buttle 2014); and vividness and strength of argument (Herr et al. 1991). Of these characteristics, valence is most frequently examined in WOM research (e.g. Baker et al. 2016; Bone 1995; East et al. 2008; Mangold et al. 1999; Sweeney et al. 2014). Alongside valence, we draw upon the conceptualisation of Mazzarol et al. (2007) to identify two additional primary characteristics of the WOM message – richness and strength of advocacy – which could influence WOM effectiveness. These characteristics are utilised because they encompass most other characteristics: the richness of a message refers to aspects of its delivery including depth, volume and vividness; while strength of advocacy stands for the quality of the argument conveyed in a message (Mazzarol et al. 2007). Together, the
characteristics richness and strength of advocacy can be labelled as ‘argument quality’ (Cheung et al. 2008).

4.5.4 Situational factors

As outlined above, the situational group refers to the factors at play in a temporary state, relevant to the communicative environment (Huang 2006). In this context, WOM effectiveness can be influenced by the receiver’s participation in the communication (López & Sicilia 2014) and the congruence (or relevance) between the communication activity and receiver (Moran & Muzellec 2014). These two dimensions are consistent with the rate of activity, participant role and personal relevance, three dimensions identified in the review by Allsop et al. (2007) but which are yet to be widely investigated in WOM research.

Participation in WOM refers to the level of involvement of the receiver. The literature indicates the effect of this factor, under the variables, WOM request (Fang et al. 2011) or WOM actively sought (Bansal & Voyer 2000). Whether the WOM receiver actively finds or passively receives the information determines the level of its influence (Chen & Berger 2016). For consumers who attempt to acquire information, most commonly by asking questions, the influence of WOM on their decision-making is usually stronger than if it is passively received (Bansal & Voyer 2000; Fang et al. 2011). Active WOM participation is a sign of a highly involved information acquisition process, often necessitated by the need to complete a difficult task or make a high-risk decision (Goldsmith & Horowitz 2006; Voyer & Ranaweera 2015), which will shape their level of satisfaction or dissatisfaction with the information provided.

Information congruence in the context of WOM has been examined in the online information and communication literature (e.g. Cheung et al. 2008; Yoo et al. 2015), but has attracted less attention in the marketing domain. When the WOM communication topic is compatible with the self-regulatory focus of the receiver, the information will be more easily recalled, and the receiver will be less concerned with the quality of the argument (Aaker & Lee 2001). WOM information is trusted if it aligns with the receiver’s expertise and prior experience (Gatignon & Robertson 1986; Moran...
& Muzellec 2014), as well as the receiver’s desired information (Cheung et al. 2008). Consumers will be more influenced by the message if it aligns with their knowledge or delivers the attributes they are considering. This is confirmed by ELM theory, which posits that receivers will pay more attention to, and are more motivated to elaborate on, information that is personally relevant (Petty & Cacioppo 1986). Moreover, this is also consistent with availability/diagnosticity theory, in which the influence of information is related to the relative accessibility of that information within the receiver’s memory (Bone 1995; Herr et al. 1991). Therefore, the level of congruence between the information received and the receiver’s self-interest and expertise has an important role in the processing or WOM.

4.5.5 Enduring involvement

The involvement of receivers in the purchase context has been addressed in the WOM and communication literature. However, as Roser (1990) states, there are conflicting results on the role of involvement, which might be, at least in part, because a range of definitions of the term are utilised in the literature. For example, involvement can refer to either enduring involvement (a long-term and stable process) or situational involvement (a transient state), and different scales are employed to examine each type, leading to different results (Huang 2006; Roser 1990). Situational involvement is discussed in the section above, while this section discusses enduring involvement, regarding the enduring factors shaping the decision-making process.

Enduring involvement is characterised by two factors: task involvement and search difficulty. Task involvement motivates the receiver to get involved in the decision-making process, and determines the level of the receiver’s involvement as they consider the type of product or service, perceived risk and complexity of the decision (Fang et al. 2011; Park & Lee 2009; Sweeney et al. 2008; Wangenheim & Bayón 2004), which in turn all determine the purchase task importance. Moreover, the level of difficulty of a task is evaluated based on the number of alternatives available for the selection and the number of attributes that need to be considered (Duhan et al. 1997). Thus, search difficulty is a factor which is associated with the availability of information and the lack of time available for searching (Sweeney et al. 2008). Task involvement and search
difficulty can be viewed as influencing the level of motivation to rely on WOM (Voyer & Ranaweera 2015). Once involved in WOM information processing, the receiver is more likely to expend effort on the service/product evaluation process.

4.5.6 Channel characteristics

WOM is different from other information sources in that it is, by nature, interactive (Buttle & Groeger 2017). WOM senders can share their message through a variety of media: they can talk face-to-face, send an email, or post a status on a social media platform. The latter two, eWOM, with the emergence of new online environments for WOM communications, has been a major focus of WOM research over the past decade.

The impact of communication channels can be identified through the use of the constructs of platform and interactivity. The platform is related to the type of media, type of activity, or scope of communication channels (Baker et al. 2016; Hennig-Thurau et al. 2010; Libai et al. 2010). For example, types of WOM communication such as face-to-face conversation, phone and texting, emails, blogs and social media represent such platforms, in which the nature of the communication style between sender and receiver varies. Interactivity refers to the level of synchronicity and identifiability, and the number of interactions (Berger 2014; Berger & Iyengar 2013), between communicators. The interactive modes of WOM that are popular topics of investigation in the research are oral vs written, audience size, or scope of communication (Barasch & Berger 2014; Libai et al. 2010; Litvin et al. 2008).
4.6 The Proposed WOM Processing Framework and Propositions

The previous section outlines the definitions of six main groups of factors involved in the processing of WOM, including discussion of their roles as either antecedents or moderators. ELM theory has been employed in the conceptual development of the WOM Processing Framework, as the groups of factors and their roles are considered based on the similar concepts in ELM theory (e.g. motivation, ability, distraction). The proposed WOM Processing Framework (Figure 4.2) presented in this paper illustrates not only the direct effects and moderating effects of these factors on WOM influence but also the relationships among them, to provide a comprehensive picture of WOM...
information processing and to provide directions for future research. Although there are many variables used to acknowledge the outcome of WOM (e.g. purchase intention, risk reduction), this is not the focus of the development of this processing framework.

The term WOM influence is utilised as the WOM outcome in this framework. This general variable, which is defined as ‘the change in attitude and/or behavioural intention resulting from an interpersonal information exchange’ (Gilly et al. 1998, p. 84), has been used extensively in WOM research (e.g. Bansal & Voyer 2000; Voyer & Ranaweera 2015). WOM influence is also related to attitude change, which is the outcome of the processing model in ELM theory (Petty & Cacioppo 1986). This section presents the justifications for the six propositions (Table 4.2), which are illustrated in the WOM Processing Framework (Figure 4.2). In Figure 4.2, the full lines represent the main direct effects on WOM influence, the dash lines represent the moderating effects, and the dotted lines illustrating other connections among the factors in the model.

Table 4.2: Propositions in the WOM Processing Framework

<table>
<thead>
<tr>
<th>Proposition</th>
<th>Relationship Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>WOM influence is affected by the factors related to source, receiver, message and situational characteristics. Source credibility and closeness increase WOM influence. (1) Argument quality and valence are related to WOM influence. (2) WOM participation increases WOM influence. (3) Receiver expertise decreases WOM influence. (4)</td>
</tr>
<tr>
<td>P2</td>
<td>The impact of source, receiver, message and situational characteristics on WOM influence is moderated by communication channel and enduring involvement. Channel characteristics moderate the relationships (1,2,3,4). Task involvement and search difficulty moderate the relationships (1,2,3,4).</td>
</tr>
<tr>
<td>P3</td>
<td>The expertise of the receiver affects their perception of the source and influences their involvement in WOM and the evaluation process. Receiver expertise decreases perceived source credibility. Receiver expertise decreases the task involvement and search difficulty. Receiver expertise decreases participation in seeking WOM.</td>
</tr>
</tbody>
</table>
**P4** The receiver’s perception of the source influences their judgement of the WOM message. Perceived source credibility and perceived source closeness increase the perceived argument quality.

**P5** The channel in which WOM occurs shapes the receiver’s perception of source characteristics and message quality. The type of channel in which WOM occurs shapes perceived source credibility and closeness. Different channels shape the perception of argument quality and valence.

**P6** Enduring involvement in the evaluation process motivates the participation of consumers in WOM; and WOM participation, in turn, affects message judgement. Higher task involvement and search difficulty lead to greater participation in WOM. Participation in WOM shapes the perception of argument quality and valence.

**P1:** *WOM influence is affected by the factors related to source, receiver, message and situational characteristics.* This refers to the main direct effect of these four factors on WOM influence, which has been described in the previous sections. The source characteristics of credibility and closeness, argument quality and WOM participation increase the influence of WOM on receivers. In contrast, the expertise of the receiver will decrease the influence of WOM.

**P2:** *The impact of source, receiver, message and situational characteristics on WOM influence is moderated by communication channel and enduring involvement.* This refers to the moderating effects of the two factors, enduring involvement and channel. Enduring involvement includes task involvement and search difficulty. These enduring involvement factors are determined by the product/service type segmented by its attributes (search, experience, credence). For example, the product type (search-experience) moderates the impact of information direction (valence) and website reputation (source credibility) on eWOM effect (Park & Lee 2009).

Services that are high in credence attributes are in particular associated with greater perceived risk (Mitra et al. 1999), higher importance (Mortimer & Pressey 2013) and require a longer information search time (Mitra et al. 1999) – all characteristics that generate greater WOM usage (Murray 1991). An involved consumer or a consumer
having difficulties in searching for information will pay more attention to evaluating these factors. For example, a consumer who is searching for information about a perceived high-risk decision or who lacks time to search will pay more attention to evaluating a message argument quality or listening to an opinion leader. Thus, except for the potentially negative impact of receiver expertise, enduring involvement will positively moderate the effects of the antecedents on WOM influence.

Communication channel characteristics are the characteristics of the platform in which the WOM interaction occurs. Different channels possess distinct characteristics such that WOM receivers will process the communication differently in these different contexts. Due to technological developments and changes in human communication, the increasing diversity of WOM interactions has therefore changed the nature of WOM communication (Libai et al. 2010). Although a market survey conducted by Keller (2007) suggested that offline WOM may still have a stronger effect, eWOM is no doubt significant, and the shift from offline to online WOM has attracted a number of studies exploring how this shift shapes the impact of WOM (e.g. Baker et al. 2016; Eisingerich et al. 2015; Prendergast et al. 2010). For example, when a person relays a negative or positive experience about a brand in a face-to-face conversation, this communication will be more persuasive than the equivalent shared in an online context where the online source is anonymous and therefore less trusted. Supporting this, Baker et al. (2016) found that both the negative and positive WOM will have a weaker impact on purchase intention in an online environment. Accordingly, this proposition posits that channel characteristics moderate the effects of the antecedents on WOM influence.

P3: The expertise of the receiver affects their perception of the source and influences their involvement in WOM and the evaluation process. Empirical evidence reveals the negative relationship between the experience and prior knowledge of receiver, on the one hand, and external search behaviour and WOM preference, on the other hand (Gilly et al. 1998). The receiver’s expertise is also correlated with less perceived risk in the purchase context, which translates into less involvement in the purchase task (Bansal & Voyer 2000; Mitra et al. 1999). In this vein, Bansal and Voyer (2000) identified that receivers with prior knowledge were demotivated from seeking out WOM. However, their result was a complete contrast to their hypothesised relationship. Thus, this requires further
investigation. Furthermore, experts who have greater confidence in their knowledge may be more likely to judge source characteristics more harshly, which could lead to a lower perceived level of source credibility (Moran & Muzellec 2014). Regardless, we propose that the expertise of receivers decreases the impact of other constructs.

**P4: The receiver’s perception of the source influences their judgement of the WOM message.** Source credibility and argument quality are two main elements of information processing commonly investigated in communication research utilising ELM theory (e.g. Cheung et al. 2008). There is little research on WOM that explores the relationship between the two. However, some empirical evidence in communication research shows that source characteristics may influence message judgement (reviewed in Pornpitakpan 2004). With regard to the timing of source identification, introducing a credible source of a message at the outset or while a message is being conveyed has been found to render the message more persuasive than introducing the source after the message has been processed (Greenberg & Miller 1966). It has also been found that message quality partially mediates the effects of source credibility on persuasion and belief change (Pornpitakpan 2004). Moreover, ELM theorists have suggested that the receiver will elaborate upon the message if they can do so (Petty & Cacioppo 1986). In the present era of online communication, when source characteristics may take the form of the characteristics of websites (Brown et al. 2007), perceived site (source) characteristics could also affect the ability of the receiver to judge the argument quality of ambiguous online messages.

**P5: The channel in which WOM occurs shapes the receiver’s perception of source characteristics and message quality.** Relationships among consumers differ across various communication contexts (Hennig-Thurau et al. 2010). For instance, Brown et al. (2007) have reported the differences in tie strength, source credibility and homophily between offline and online environments. The salient characteristics of the online environment are the anonymity and identifiability, such that the information source on the Internet is relatively anonymous (King et al. 2014). In this regard, eWOM may appear less credible than face-to-face communication, because the communication is anonymous (Buttle 1998; Reichelt et al. 2014). Therefore, credibility and closeness within individual-to-individual communication are less relevant in a virtual environment, and could be
replaced by constructs such as website trustworthiness, site closeness, and shared group interests (Brown et al. 2007). Regarding message characteristics in various channels, because some conversations are synchronous and others asynchronous, so they are different in terms of time spent to construct and modify the message (Berger & Iyengar 2013), as well as the receiver’s ability to read and evaluate argument quality.

P6: Enduring involvement in the evaluation process motivates the participation of consumers in WOM; and WOM participation, in turn, affects message judgement. This proposition refers to the direct effect of enduring involvement on WOM participation, and its indirect effect on message judgement. When consumers experience a high level of uncertainty during the decision-making process, they tend to rely on WOM information (Hennig-Thurau & Walsh 2003; Murray 1991). A higher perceived risk, higher service component in the purchase, or higher perceived task difficulty, will all increase the likelihood of consumers actively participating in WOM (Bansal & Voyer 2000; Fang et al. 2011; Goldsmith & Horowitz 2006). According to ELM theory, in situations where people are motivated to process the message presented to them, they will take the message judgement path to evaluate the message quality (Petty & Cacioppo 1986). Thus, once consumers actively participate in and seek WOM, they will focus more on message judgement.

4.7 Directions for Future Research

The WOM Processing Framework provides a conceptual foundation for marketing and communication scholars, in providing research propositions and filling the gaps in previous frameworks to highlight avenues for further research. Each of the propositions can be used to generate a specific set of research questions, based on the four topics summarised below.

First, attention needs to be given to exploring how technological channels shape WOM influence. The proposed WOM Processing Framework accommodates the theoretical concepts that can link WOM and eWOM research. Examining the moderating effects of platform and interactivity on each antecedent will reveal how channels shape the focus and processing of the consumer (or receiver of WOM). Moreover, the channel
used in the communications may influence the consumer’s perception of a source or message, so that research findings in this area could help marketers to develop more appropriate sources and content on their operating communication channels.

Second, the expertise of the receiver or consumer is determined to be an important construct. In this regard, marketers will benefit from greater understanding of the receiver’s expertise based on their demographics and the attributes they consider, specifically in terms of seeding content for virality. This highlights the importance of customising messages that are suitable to the needs of the receiver. To date, little attention has been paid to the role of expertise in the receiver’s evaluation of the factors shaping WOM, such as perceived source personal and relationship characteristics. Thus, potential areas for further investigation include the impact of consumer demographics on their WOM behaviour, as well as segmenting consumers according to prior knowledge and information-gathering behaviour. Moreover, research could focus on identifying information requirements for different products or services, particularly those for which consumers need to consider numerous, complex attributes.

Third, the situational factors proposed in this paper represent a new contribution to the literature and highlight a direction for future research. In line with ELM theory, the influence of the receiver’s level of participation in communication on WOM effectiveness and the judgement of message quality is a rich area for further research. With the recent literature on WOM effectiveness primarily focused on the traditional factors related to source, message and receiver, further examination of situational factors could add a new perspective to our current knowledge. Moreover, by expanding these factors into other fields such as online research or customer engagement, researchers could examine and distinguish between concepts such as flow, participation or involvement in light of WOM research.

Fourth, message characteristics represent a central element of our proposed framework, in which their nature is shaped by other factors. Indeed, message content is a significant construct because it can be modified by marketers as part of their communication strategies. Of the relationships with other factors, the proposed direct effect from the
perceived source characteristics on the perceived argument quality has not previously been explored in the literature.

4.8 Conclusion

This paper is among the first to conceptualise WOM processing from the receiver’s perspective, integrating the main factors into the proposed WOM Processing Framework. The extensive exploratory investigation reported in this article offers key insights into WOM and communication theory. Specifically, this paper identifies three new factors, and presents the WOM Processing Framework and six research propositions. This conceptualisation contributes to theoretical developments in WOM research, suggests potential directions for future research, and has implications for scholars and practitioners.
WOM source characteristics and message quality: The receiver perspective

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Abstract

Purpose: WOM literature has identified the roles of source and message in WOM influence, but the relationship between them is yet to be investigated. This paper explores this relationship by examining the mediation of message on the impact of perceived source characteristics from the perspective of the receiver. Also considered are the mutual relationships between source characteristics and message quality.

Design/methodology/approach: A quantitative survey of prospective students was conducted to empirically examine the proposed conceptual model. A sample of 509 respondents was analysed using structural equation modelling.

Findings: The findings suggest the significant impact of expertise, trustworthiness, homophily and opinion leadership of the WOM source on the judgement of message quality and the indirect effects on WOM influence mediated by the message quality. The results also indicate the moderating effects of receiver involvement and the valence of the message on the impact of message quality.
Practical implications: The findings of this paper can inform the strategic development of WOM marketing. A deeper understanding of source characteristics and the role of the message may enable marketing practitioners to better target appropriate influencers for seeding programs that stimulate WOM communication about their brands or products.

Originality/value: This study examines how the receiver’s evaluations of message content mediate the relationship between source characteristics and WOM influence. Source and message are two elements of communication which are processed when people receive information. However, nascent research examines their effects on each other. This research contributes to our understanding of this relationship through an empirical examination of the direct effects of primary source characteristics on perceived message quality.

Keywords: opinion leadership, trustworthiness, expertise, homophily, message quality, WOM influence
5.1 Introduction

WOM communication is an influential information source during the purchase decision-making process (Bansal & Voyer 2000). Receiving advice from a friend, seeing a complaint on social media, or reading a review on a website could affect a prospective consumer’s attitude towards a product (problem recognition and information search stages) and the purchase decision. When people receive WOM messages, they process the source characteristics and the quality of message content. These two elements have been shown to individually influence both attitude and WOM acceptance (Mahapatra & Mishra 2017).

However, the relationship between the perceived source characteristics and the perceived message quality has been largely overlooked. That is, source and message are commonly examined as two unrelated constructs in the WOM process. This study seeks to address this void by examining message quality as a mediator of the relationship between source characteristics and WOM outcomes. For example, the information provided by people deemed to be experts may be perceived as especially content-relevant, more convincing and reliable, thus, in turn, enhancing the WOM influence. The lack of knowledge regarding this mediation presents a limitation to the WOM literature, as the receivers’ judgement of WOM message content may depend on the source of the message, especially with information regarding attributes consumers are unable to process. In practice, selecting a suitable source to deliver a relevant message and improve the perceived quality of message are key factors of successful WOM marketing campaigns. Therefore, it is important for marketers to understand the relationship between source characteristics and message quality, and how message quality mediates the effects of source characteristics.

How consumers process received WOM messages is demonstrated by the ELM, which posits source and message as the two main routes of information processing, defined as central and peripheral (Cacioppo & Petty 1984). Aligning this model with historical communication theories, WOM research has investigated source and message, as the two main constructs of the WOM process and antecedents of WOM influence (e.g. Cheung & Thadani 2012; Mahapatra & Mishra 2017; Sweeney et al. 2008). As the
theoretical support for the propositions of this study, ELM theory also supports the mediation effect between source and message, as the attitude shift occurred from peripheral route (source evaluation) leads to central processing (message evaluation) that then shapes attitude change (Petty & Cacioppo 1986).

To examine the mediating effects of message quality on source characteristics and WOM influence, this study focusses on the four most frequently mentioned source characteristics examined in the domain of WOM research: source expertise, trustworthiness, opinion leadership and homophily (Ballantine & Yeung 2015; Chu & Kim 2011; Gilly et al. 1998; Martin & Lueg 2013; Reichelt et al. 2014; Wangenheim & Bayón 2004). This study extends knowledge in this area by considering, for the first time, if each of these perceived characteristics impacts the evaluation of message quality and the indirect effects on WOM influence.

Such focus is warranted as a deeper understanding of the receiver perspective would benefit practitioners in terms of understanding how WOM information is evaluated and affects and influences on behaviour (Martin & Lueg 2013). Thus, the findings will assist marketing practitioners to select a relevant source for their WOM marketing campaigns by identifying the opinion leaders, experts, trustworthy sources in each context. Further, while message quality is known to influence WOM effectiveness (Mazzarol et al. 2007), whether the valence of the message content (negative or positive WOM content) and the involvement on the purchase task shape its effect are unknown. Thus, the moderating effects of involvement and valence on the effect of message quality are also explored.

5.2 Theoretical Foundations

Given the fundamental nature of WOM as the passing on of communication and the multiple-channel options afforded by electronic WOM (eWOM), the most appropriate definition of WOM to progress understanding is one that incorporates both traditional and electronic characteristics and functionality. Thus, based on Westbrook (1987) original definition, Berger (2014, p. 261) defined WOM as “informal communications directed at other consumers about the ownership, usage or characteristics of particular
goods and services or their sellers; and it includes literal WOM, or face-to-face discussions, as well as ‘word-of-mouse’, or online mentions and reviews”.

WOM is commonly considered from one of two main perspectives: the source or the receiver. More attention has been paid to the source perspective through investigations into the motivations and behaviour of WOM sources and transmission (e.g. Berger 2014; Hennig-Thurau et al. 2004; Jalilvand et al. 2017; Stephen & Lehmann 2016). However, less attention has been paid to the receiver perspective (Sweeney et al. 2008). WOM message will not consistently lead to action, such as purchase or transmission. The influence of WOM on the receivers is affected by the factors of information processing (Martin & Lueg 2013). Thus, further research is needed to examine WOM from the receiver perspective to achieve a deeper understanding these factors.

Of the frameworks which conceptualise the factors influencing WOM effectiveness and adoption from the receiver viewpoint, the source and message are consistently proposed as primary factors (e.g. Cheung & Thadani 2012; Sweeney et al. 2008). The ELM suggests that receivers will evaluate the content and source of a message when processing information. This evaluation is considered as both peripheral and central routes of information processing (Cheung et al. 2009; Petty et al. 1983) and ELM theory differentiates between the two routes by considering the depth of cognitive information processing that message evaluation undergoes (Petty & Cacioppo 1986). When receivers have high motivation and ability to process information, elaboration likelihood is high, and they tend to evaluate the message content through the central route. When receivers have both low motivation and ability to process the information, elaboration likelihood is low and they are likely to evaluate the peripheral cues or source-related factors.

Situational and individual factors have been suggested as determinants of motivation and ability. Situational factors include distraction or repetition and individual factors include knowledge or relevance (Kang & Herr 2006). In such conditions when low elaboration likelihood occurs, the perception towards a source has a greater influence on persuasion (Bordia et al. 2005). Positive source perception would shift the peripheral attitude and lead the information receiver back to the central cognitive processing route
(Petty & Cacioppo 1986), which would then drive the attitude change of WOM receivers.

Therefore, in conditions when WOM receivers are distracted, or lack knowledge about the information received, WOM sources shape the evaluation of the message content they receive. Moreover, in real conditions, the central and peripheral routes do not exist separately, since the former, requiring minimal cognitive resources, can be a precursor to the latter (Kang & Herr 2006). Thus, information processing is complex, and the perception towards source and message will affect each other. ELM theory provides a theoretical foundation for the mediating effects and relationships of message and source variables. The conceptual model and hypothesis development discuss these effects in more detail.

5.3 Conceptual Model and Hypothesis Development

5.3.1 Message quality and WOM influence

WOM influence refers to the change in attitude and/or purchase intention of consumers as an outcome of information exchange during WOM (Gilly et al. 1998). WOM influence has been widely used as the main construct to measure the consequence of WOM communication from the receiver perspective (e.g. Bansal & Voyer 2000; Gilly et al. 1998; Voyer & Ranaweera 2015). Building on the work of Sweeney et al. (2014) who suggested a relationship between WOM message influence and change in willingness to use a service, this study focuses on the main construct of message quality to examine its relationships to source characteristics and WOM influence in general.

Characteristics of message are one of the principles of WOM research (Allsop et al. 2007). Previous research has considered the influence of the characteristics of WOM messages in terms of type (recommendation, complaints, review rate or comments) (Duhan et al. 1997; Harrison-Walker 2001), information content (Patti & Chen 2009), sidedness (ratio of positive to negative) (East et al. 2008) and the vividness and strength of argument (Herr et al. 1991). Mazzarol et al. (2007) categorised message characteristics into the richness of the message and strength of advocacy. The richness
of the message includes “content aspects, such as the language used and the degree of storytelling or depth of information involved in the message” while the strength of advocacy refer to “the power of the way the message is delivered” (Sweeney et al. 2012, p. 242). Within the scope of this study, the message quality refers to the richness of the message, as it is consistent with the term defined in ELM theory. The delivery of the message is not included in this construct because according to ELM theory, it is considered as a peripheral cue. Message quality is a key factor in the central process (Petty & Cacioppo 1986), which is related to the content delivered, including cognitive value and the richness of argument. Therefore, a WOM message which delivers rich content would have a stronger impact on WOM influence. Hence:

**H1: Perceived WOM message quality is positively related to WOM influence**

### 5.3.2 The effects of source characteristics on message quality

The conceptual work of Sweeney et al. (2008) on the factors influencing WOM effectiveness suggested five source factors such as credibility, trustworthiness, expertise, homophily (tie strength) and opinion leadership. However, this study excludes source credibility from our model in line with the long-held argument that credibility is a major factor of other sub-dimensions including trustworthiness and expertise (e.g. Ohanian 1990; Strong 1968; Whitehead 1968). Consequently, expertise, trustworthiness, opinion leadership and homophily are examined in this study. Previous research into source characteristics also acknowledges the importance of these four characteristics as the antecedents of WOM positive outcomes (e.g. Ballantine & Yeung 2015; Martin & Lueg 2013; Reichelt et al. 2014; Wangenheim & Bayón 2004). However, there is no research that examines the relationships of these characteristics with WOM message quality.

Source expertise refers to the extent to which the source is perceived as having sufficient capability to provide correct information such that the seeker has no motivation to cross-check the receiving messages due to a high level of persuasion (e.g. Bansal & Voyer 2000). When a source has a specialised occupation or trained skills they are more likely to be considered of higher expertise (Martin & Lueg 2013). Because of
the unique position of these experts, WOM seekers tend to search for such experts and believe their recommendations (Gilly et al. 1998; Wangenheim & Bayón 2004).

Expertise has been reported to have both a ‘strong impact’ (Wangenheim & Bayón 2004) and ‘no impact’ (Martin & Lueg 2013) on WOM influence. The rationale for the ‘no impact’ finding was the presence of the construct WOM source experience which is related to opinion leadership. This meant that WOM receivers placed greater weight on experience rather than general knowledge (Martin & Lueg 2013). This present study considers the direct impact of source characteristics, not on WOM influence but message quality, and proposes that when consumers receive information from an expert source, they will consider the message content to be of higher quality.

\[ H2: \text{Perceived WOM source expertise is positively related to perceived WOM message quality} \]

The trustworthiness of a source has been linked with the expertise to measure the credibility of communication (Hovland & Weiss 1951; Pornpitakpan 2004; Reichelt et al. 2014). Such a source can be more persuasive because others believe that they provide and pass on trusted information (Martin & Lueg 2013). Compared to expertise and similarity, Reichelt et al. (2014) found that trustworthiness is the most important source characteristic, with impact on both the utilitarian and social functions of WOM. The trustworthiness of sources has become increasingly important in eWOM because of the anonymity of message sources (Brown et al. 2007). Thus, similar to source expertise, the effects of trustworthiness on message quality are hypothesised as:

\[ H3: \text{Perceived WOM source trustworthiness is positively related to perceived WOM message quality} \]

Homophily, or similarity, refers to the degree to which the source and the receiver are perceived as having similar attributes (e.g. demographics, lifestyle, preferences, and values) (Gilly et al. 1998; Wangenheim & Bayón 2004). Because of these similarities, WOM seekers are more likely to talk to homophilous sources. Initial works in this field support the significant influence of homophily and the tie between source and receiver (Gilly et al. 1998). However, the impact of homophily on WOM effectiveness is relatively inconsistent. Further research on determinants of WOM engagement suggests
homophily is negatively associated with opinion seeking and passing behaviours and is not associated with opinion giving behaviour (Chu & Kim 2011). The similarity between source and receiver has a positive relationship with social function but has a negative relationship with utilitarian function (Reichelt et al. 2014). Therefore, H4 is suggested as follows:

**H4: Perceived WOM source homophily is negatively related to perceived WOM message quality**

Opinion leadership is the most frequently mentioned characteristic in the extant literature, however, while opinion leaders are thought to share some similarities, opinion leadership and source expertise are identified as different source types (Sweeney et al. 2008). Gilly et al. (1998) found that the expertise of the source has a significant relationship with opinion leadership. While expertise refers to the positive personality attributes of the WOM source, opinion leadership is related more to source ability, motivation and will to spread WOM messages (Gilly et al. 1998). The information from influential opinion leaders would be perceived as more reliable and better quality because the receivers could not evaluate the purchase information given their lack of experience. Hence:

**H5: Perceived WOM source opinion leadership is positively related to perceived WOM message quality**

### 5.3.3 Mediating roles of message quality

The ELM and information processing theories suggest that both source and message affect the persuasion of information. Following the peripheral route, the peripheral attitude shift influences the central cognitive processing and attitude change in that sequence. In actual communication, when people receive information from a credible source, whether they are influenced solely by the source of the message or they also evaluate the message itself is unknown. That is, if there are significant mediating effects of the message marketers should also pay attention to content seeding alongside source selection. In the mass communication context, Slater and Rouner (1996) suggest that message quality mediates the relationship between initial source credibility assessment
and the second assessment, as well as mediates the relationship between initial source credibility assessment and belief change. However, within WOM context, no prior research confirmed the mediation of message quality. Given the hypothesised effects of each source characteristic on message quality, and of message quality on WOM influence (Figure 5.1), each source characteristics is expected to have indirect effects on WOM influence mediated by message quality. Hence:

$$H6: \text{Perceived WOM message quality mediates the relationship between perceived WOM source expertise and WOM influence}$$

$$H7: \text{Perceived WOM message quality mediates the relationship between perceived WOM source trustworthiness and WOM influence}$$

$$H8: \text{Perceived WOM message quality mediates the relationship between perceived WOM source homophily and WOM influence}$$

$$H9: \text{Perceived WOM message quality mediates the relationship between perceived WOM source opinion leadership and WOM influence}$$

5.3.4 Moderating roles of task involvement and valence

In investigating the mediating role of message quality on WOM influence, the processing of the message by the receiver and message characteristics must also be represented. In this respect, the involvement of the receiver in message processing and the valance of the message are considered in this study as moderating the influence of message quality on WOM influence. Task involvement is examined in this study and is defined as the motivation of the receiver to be engaged in the decision-making process (Park & Lee 2009; Sweeney et al. 2008). Involvement can be seen as the motivation to process information (Voyer & Ranaweera 2015), which would affect the central process in ELM. Thus, WOM receivers who are highly involved in the purchase task would expend greater efforts in evaluating WOM communication factors. The moderation effect of such involvement is hypothesised as:

$$H10: \text{Task involvement moderates the positive effect of perceived WOM message quality on WOM influence}$$
Valence, or the sidedness of message content, is a message characteristic which has been widely investigated (e.g. Anderson 1998; Baker et al. 2016; East et al. 2008). All messages deliver a negative, neutral or positive opinion regarding the brand or product, and valance has been shown to significantly influence consumer behaviour (e.g. brand attitude, purchase intention, sales) (Ballantine & Yeung 2015). Despite the attention valence has received in the literature, and recognition as a characteristic of WOM messages (Sweeney et al. 2012), no research examines if valence (negative or positive) impacts on message quality and subsequently on WOM influence. Receiving the messages which are extremely positive or negative would attract receivers’ attention and motivation to process the message. Thus:

\[ H11: \text{Valence moderates the positive effect of perceived WOM message quality on WOM influence} \]

Figure 5.1: Conceptual model
5.4 Method

5.4.1 Sample and data collection

Higher education was selected as an appropriate context for this study because consumers in this industry are highly involved in the decision-making process and use WOM as the main source of information (Patti & Chen 2009). This industry can be classified as a credence service as its quality and attributes are difficult to evaluate even after purchase and consumption (Patti & Chen 2009). The higher education context is further suited to this research topic as university choice is often a one-off decision with such substantial influence on the future career of the “consumers”, such that prospective students tend to spend significant time and effort in information seeking and processing. The decision-making process is lengthy and prospective students receive various kinds of information through multiple channels of communication. Regarding source characteristics, prospective students also talk to a variety of sources, from educational experts and advisors, to friends or family members across both traditional and online channels (Bonnema & Van der Waldt 2008).

Consistent with previous studies in this research area investigating the source characteristics and message quality, we empirically examine the conceptual model using cross-sectional data obtained via a quantitative survey. The self-administrated survey was distributed to final-year students at three public high schools located in Ho Chi Minh City, Vietnam, who were considering applying for admission to at least one university. The three participating high schools were selected by the Department of Education and Training in Ho Chi Minh City. They are of the high schools which have the largest numbers of students in the city, and the principals were willing to facilitate the research in their schools. Participation in the research by the students was completely voluntary, and thus constitutes a non-probability convenience sampling method. The questionnaires were returned with a total of 509 respondents used for data analysis, equating to a 35.73 per cent response rate across the three schools. The numbers of responses from each participating school are 205, 127 and 177. There were 316 female (62.1%) and 193 male (37.9%) respondents. Almost half of the respondents
(298, 58.5%) had at least one sibling currently attending university or had completed a university degree.

### 5.4.2 Measures and pretest

The dependent construct WOM influence was measured by three items adopted from Bansal and Voyer (2000). The expertise of source and trustworthiness were measured using the scales of Ohanian (1990), and the opinion leadership scale was adapted from Childers (1986) to suit the context. To ascertain homophily the four-item measure adapted from Sweeney et al. (2014) was used. Message quality was measured by an eight-item scale developed by Sweeney et al. (2012) and task involvement was adapted from the involvement index of Zaichkowsky (1985). Valence was considered in terms of the information or advice received on a negative/positive single-item scale. Consistent with the established scales they were adopted from, all scales were seven-point Likert scales (1 = totally disagree, 7 = totally agree), with the exception of the valence item where the Likert scale was presented as 1 = extremely negative, 7 = extremely positive.

In the opening of the questionnaire, screening questions ensured that only final-year high school students who were intending on applying for admission to at least one university completed the questionnaire. Further, a definition of WOM was presented to respondents, with relevant examples, to ensure that respondents understood the concept and answered questions about their WOM experiences from the same perspective. The remainder of the survey was structured following the three main themes of this research: the influence of WOM, evaluation of the source characteristics, and evaluation of the message itself. The survey concluded with a final section collecting demographic information.

Pretesting of the questionnaire was pretested conducted with five Vietnamese academics, who confirmed the translation and checked for validity and readability, and five Vietnamese final-year high school students who checked for readability and ease of completion. Reliability (Cronbach’s alpha values) and validity tests (convergent and discriminant validity) were performed to validate the measurement scale before the
main stage of analysis. The measurement model was tested by EFA and CFA techniques, and all model-fit indices were satisfied the threshold values.

5.5 Data Analysis and Results

In the first stage of measurement validation, the principal component factor analysis indicates that the eigenvalues of all factors are greater than one. All factor loadings are high, and there are no significant cross-loadings with the Varimax rotation method. Before conducting the path analyses to test the hypotheses, a confirmatory factor analysis (CFA) using AMOS 22 was performed to analyse the reliability and validity of constructs measured by multi-item scales.

Maximum likelihood (ML) estimation was employed to estimate the parameters and the overall fit index of the measurement model. The measurement model consisted of expertise, trustworthiness, homophily, opinion leadership, message quality and WOM influence. The overall fit indices of the measurement model, as reported in Table 5.1, indicating a good model fit (Fornell & Larcker 1981; Hair et al. 2006; MacKenzie et al. 2011), and all of the factors satisfied the conditions for reliability and validity (Hair et al. 2006).

Table 5.1: Results of the measurement model assessment

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Factor loading</th>
<th>α</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise</td>
<td>This person is an expert</td>
<td>.654</td>
<td>.899</td>
<td>.897</td>
<td>.637</td>
</tr>
<tr>
<td></td>
<td>This person is experienced</td>
<td>.875</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This person is knowledgeable</td>
<td>.911</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This person is qualified</td>
<td>.779</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This person is skilled</td>
<td>.754</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>This person is honest</td>
<td>.715</td>
<td>.920</td>
<td>.918</td>
<td>.740</td>
</tr>
<tr>
<td></td>
<td>This person is reliable</td>
<td>.921</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This person is sincere</td>
<td>.887</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Item</td>
<td>Alpha</td>
<td>CR</td>
<td>AVE</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------</td>
<td>-------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Homophily</td>
<td>This person is trustworthy</td>
<td>.901</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I usually spend free time with this person</td>
<td>.787</td>
<td>.909</td>
<td>.918</td>
<td></td>
</tr>
<tr>
<td></td>
<td>We have a similar outlook on life</td>
<td>.854</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>We share common interests</td>
<td>.902</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>We have similar likes and dislikes</td>
<td>.888</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opinion leadership</td>
<td>This person provided me with a great deal of information about universities</td>
<td>.617</td>
<td>.764</td>
<td>.778</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In a discussion about universities with this person, I am more likely to receive information from them than I provide in return</td>
<td></td>
<td>.756</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>In general, I often use this person as a source of advice</td>
<td>.821</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Message Quality</td>
<td>The message was informative</td>
<td>.746</td>
<td>.915</td>
<td>.910</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was reliable</td>
<td>.804</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was clear</td>
<td>.808</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was specific</td>
<td>.734</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was elaborate</td>
<td>.751</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was explicit</td>
<td>.755</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was intense</td>
<td>.694</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The message was reinforcing</td>
<td>.675</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOM Influence</td>
<td>This conversation has a significant influence on my university choice decision</td>
<td>.667</td>
<td>.774</td>
<td>.779</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This conversation mentioned helpful things I had not considered</td>
<td>.801</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This conversation really helped me make the decision about selecting a university</td>
<td></td>
<td>.733</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model Fit indices: Chi-square = 770.639, df = 302, p = .000, Chi-square/df = 2.552, Root Mean Square Error of Approximation (RMSEA) = 0.055, Tucker Lewis Index (TLI) = 0.941, Normed Fit Index (NFI) = 0.919 and Comparative Fit Index (CFI) = 0.949

N = 509; α = Cronbach’s alpha; CR = Composite reliability; AVE = Average variance extracted.
Table 5.2 shows the results of relationships of constructs using structural equation modelling (SEM). Among the five direct hypothesised relationships, the SEM results support four of the direct relationships tested. Firstly, Message Quality is found to be strongly related to WOM Influence ($\beta = .67$, $p < 0.01$), supporting H1. Next, the relationships between the source characteristics and Message Quality were examined. A positive relationship between Source Expertise and Message Quality ($\beta = .19$, $p < 0.01$) in support of H2. Trustworthiness is also shown to have a positive significant impact on Message Quality ($\beta = .31$, $p < 0.01$), thus H3 is also supported. Although a significant positive path was found between Homophily and Message Quality ($\beta = .07$, $p < 0.05$), the relationship is weak and conflicts with the hypothesis proposing a negative relationship. Hence, H4 is not supported. The strongest path is the relationship between Opinion Leadership and Message Quality ($\beta = .44$, $p < 0.01$), confirming the hypothesis H5.

Table 5.2: Results of structural model

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Standardised Estimate</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Quality $\rightarrow$ WOM Influence</td>
<td>.67**</td>
<td>.000</td>
</tr>
<tr>
<td>Source Expertise $\rightarrow$ Message Quality</td>
<td>.19**</td>
<td>.000</td>
</tr>
<tr>
<td>Trustworthiness $\rightarrow$ Message Quality</td>
<td>.31**</td>
<td>.000</td>
</tr>
<tr>
<td>Homophily $\rightarrow$ Message Quality</td>
<td>.07*</td>
<td>.031</td>
</tr>
<tr>
<td>Opinion Leadership $\rightarrow$ Message Quality</td>
<td>.44**</td>
<td>.000</td>
</tr>
<tr>
<td>MQuality*Involvement $\rightarrow$ WOM Influence</td>
<td>.09**</td>
<td>.007</td>
</tr>
<tr>
<td>MQuality*Valence $\rightarrow$ WOM Influence</td>
<td>.07*</td>
<td>.049</td>
</tr>
</tbody>
</table>

R squared values: Message Quality: 0.660; WOM Influence: 0.446

$N = 509; \quad ** p < 0.01, \quad * p < 0.05$
Table 5.2 also shows the standardised coefficients and p-value of effects of interactions on WOM Influence. The interaction of Involvement and Message Quality is found to be significant ($\beta = .09$, $p < 0.01$), so that the moderation of Involvement (H10) is fully supported. This finding suggests that as the task involvement of consumers increases, the positive relationship between Message Quality and WOM Influence is strengthened (Figure 5.2). Next, the moderating effect of Valence is also significant ($\beta = .07$, $p < 0.05$), supporting the hypothesis H11. Similarly, if messages deliver positive content rather than negative content, the positive relationship between Message Quality and WOM Influence is strengthened (Figure 5.3).

**Figure 5.2: The moderating effect of Involvement**

![Moderating effect of Involvement](image_url)
The mediating role of Message Quality was assessed using the bootstrapping method developed by Preacher and Hayes (2008) and implemented through the PROCESS macro offered by Hayes (2013). For the mediating effects, Table 5.3 shows the results of the mediation analysis with a bootstrap sample of 5,000 cases at a 95 per cent confidential interval (CI). Mediation was assessed by the indirect effect and CI values, indicated by the limits: lower level CI (LLCI) and upper level CI (ULCI). If the CI contained the value zero, it cannot be concluded that a mediation effect exists; if the CI does not contain value zero, the mediation effect can be confirmed (Hayes 2013). All paths reflect the bootstrap CI limits not containing the value zero. That is, there is a significant indirect effect of Expertise on WOM Influence through the mediating variable Message Quality (.319, CI [.262,.384]), supporting H6. Similarly, there are significant indirect effects of Trustworthiness, Homophily and Opinion Leadership on WOM Influence through Message Quality (.359, CI [.303,.419]), (.152, CI [.112,.196]), (.356, CI [.298,.418]), respectively. Thus, the tests confirm the mediating effects of
Message Quality on all source characteristics on WOM influence and hypotheses H6, H7, H8, and H9 are all supported.

Table 5.3: Bootstrap test of indirect effects

<table>
<thead>
<tr>
<th>Indirect Effects</th>
<th>Effect</th>
<th>SE</th>
<th>Boot LLCI</th>
<th>Boot ULCI</th>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise → Message Quality → WOM Influence</td>
<td>.3185</td>
<td>.0308</td>
<td>.2618</td>
<td>.3837</td>
<td>H6: Supported</td>
</tr>
<tr>
<td>Trustworthiness → Message Quality → WOM Influence</td>
<td>.3586</td>
<td>.0292</td>
<td>.3025</td>
<td>.4187</td>
<td>H7: Supported</td>
</tr>
<tr>
<td>Homophily → Message Quality → WOM Influence</td>
<td>.1516</td>
<td>.0214</td>
<td>.1117</td>
<td>.1962</td>
<td>H8: Supported</td>
</tr>
<tr>
<td>Opinion Leadership → Message Quality → WOM Influence</td>
<td>.3561</td>
<td>.0311</td>
<td>.2977</td>
<td>.4182</td>
<td>H9: Supported</td>
</tr>
</tbody>
</table>

N = 509; SE = Standard Error; Boot LLCI = Bootstrapping lower level confidential interval; Boot ULCI = Bootstrapping upper level confidential interval

5.6 Discussion

Message and source are two primary elements which exist in communications. This study sought to examine if the receiver’s evaluation of WOM sources will affect the judgement of message content and, in turn, WOM influence. The results of this study confirm this relationship, demonstrating the mediating role of message quality on the relationship between the four source characteristics under study and WOM influence. In summary, the findings suggest that the use of relevant source characteristics in delivering a WOM message will increase WOM influence.

Of the four source characteristics examined, the findings show the significant, positive influence of opinion leadership and expertise on message quality, with opinion leadership having the strongest impact. This result confirms the significant role of opinion leadership in WOM communication (Gilly et al. 1998). The greater effect of opinion leadership over expertise is consistent with Martin and Lueg (2013), indicating
the importance of source experience rather than source expertise. That is, WOM receivers tend to prefer information from people who are familiar with, and experienced in, the purchase context. In the higher education context, prospective students would listen to the career advisors, teachers or people in their network who they usually ask information regarding universities rather than experts or professors. Prospective students may ask these people because they are familiar with the context as a consumer. Experts or professors are familiar with the context too, just not as consumers.

The results are also consistent with previous studies which identified the important role of trustworthiness in WOM sources (Martin & Lueg 2013; Reichelt et al. 2014). In the digital era, the trustworthiness of online sources could be very important for information receivers because they cannot evaluate the expertise of the online communicators. For example, Brown et al. (2007) argued that website reputation is more important than the expertise of the contributors. Within the credence services such as higher education, this trustworthiness may be essential because consumers do not have prior personal knowledge regarding considered attributes.

Of the four hypotheses related to the examined characteristics, the hypothesis regarding the impact of homophily is the only one not supported and has the weakest positive effect. In this study, homophily is found to have a positive direct effect on message quality and positive indirect effect on WOM influence, though the weakest. This result can be explained by Reichelt et al. (2014) finding that the use of similar of sources satisfies the social function of consumers but has no utilitarian function. In a service context where consumers need to find information regarding credence attributes, their information acquisition activities are more likely to be associated with the utilitarian function rather than social function. However, because of the data collection context of higher education, the closest similar WOM sources are likely to be family friends. These sources may not have sufficient experience in the considered attributes (e.g. course content, teaching staff qualification) because they did not attend a university recently or at all, and thus homophily in this context primarily satisfies the social function.
The findings also illustrate the moderating effects of the involvement in the purchase context and the valence of message content. High involvement was shown to strengthen the positive relationship between massage quality and WOM influence. This moderating effect is consistent with ELM theory which contends that argument quality has a greater impact on attitude under high involvement (Petty et al. 1983). In term of valence, when receiving positive information, the message content will have a greater impact on WOM influence. This result shows that consumers are more confident to elaborate and adopt a WOM message when it delivers positive content. As empirical support for moderating relationships are very difficult to obtain, even at p < 0.1 (Podsakoff et al. 1995), empirical support for moderating relationships is important for theory testing.

5.7 Implications for Theory and Practice

From our knowledge, this is the first empirical study to seek a deeper understanding of the relationship between source characteristics and message quality. The study differentiates the power of each source characteristic on the judgement of message quality, which is helpful for marketing practice in selecting the source for WOM marketing strategies.

Previous research has indicated that WOM sources influence the effectiveness of WOM delivered to receivers, though the influence varies depending on source characteristics, namely expertise, trustworthiness, source homophily and opinion leadership. However, the effects of these characteristics via the mediating variable of message quality have not been previously considered. The findings of this study confirm the mediating role of message quality. This mediation explains the process that underlies the known relationships between source characteristics and WOM influence. It also contributes to the understanding of the link between the two processing routes of ELM theory. Although the peripheral process occurs when elaboration likelihood is low, the evaluation of peripheral cues or source characteristics does not lead directly to the attitude change. It plays a stimulating role for the central process, which leads to message evaluation and attitude change. Regarding information processing theories, the findings support the view that central and peripheral processes of ELM do not exist
separately, but influence each other. This is different from other WOM research where
the ELM treats such information processing as isolated routes.

This study has several implications for practitioners, marketers, and managers. Although WOM is non-commercial communications and are not generated from practitioners, it can be stimulated through marketing campaigns (Godes & Mayzlin 2009; López & Sicilia 2013). From a practical perspective, the findings of this study support two primary ways to enhance WOM in marketing strategies. First, marketers can develop referral programs to encourage consumers to recommend their products or services to other consumers; second, marketers can employ seeding programs to encourage influencers to generate information, share commercially generated messages or co-create with the brand/organisation those messages and then share them on their own channels (López & Sicilia 2013).

Thus, with the nature of information processing in the WOM context more deeply understood, practitioners can consider how the message and sources are evaluated by consumers and alter messages accordingly. To develop a WOM marketing strategy, for example a seeding program, practitioners need to identify the most effective influencers for the program and the most appropriate WOM message aimed to the potential consumers. According to the findings, opinion leaders, or trustworthy people, should be the targeted sources or seeds of information. Identifying who they are and reaching these potential sources are fundamental to the success of the WOM marketing campaign. Furthermore, understanding that the source characteristics will have an indirect effect on WOM influence through the mediation of message quality, marketers and managers should also carefully design relevant messages to improve the effectiveness of WOM marketing. For each source characteristic, the messages should be customised to match with the voice of source. Organisations can also educate influencers on how to best design messages to enhance message quality and capitalise on the source characteristics they represent to consumers.
5.8 Limitations and Future Research

The limitations of this research are noted and provide avenues for future research. The data collection was conducted in the higher education context which limits generalisability. This context represents a credence service where the considering attributes would be difficult to evaluate for prospective consumers. Further research should be conducted in other sectors, with a variety of products and services to analyse the impacts of source characteristics in different purchase contexts.

The need to extend this research across purchase contexts is especially relevant to the construct of homophily. As discussed, the effect of homophily is inconsistent across previous studies. Brown and Reingen (1987) predicted but did not confirm the impact of homophily. The work of Gilly et al. (1998) indicates that the effects of homophily can be inverted and vary depending on the demographic or perceptual form of homophily, as well as the types of products. Whereas Chu and Kim (2011) found that homophily is negatively related to WOM opinion seeking. These conflicting results indicate that homophily is a complex factor which varies from demographic homophily, lifestyle or attitude homophily (Brown & Reingen 1987), and across different contexts (Gilly et al. 1998). Thus, further examination of the nuances of homophily in WOM research is needed and provides a rich area for future research.

The role of demographics and offline-online platforms were not the focus of this study. Future research can extend the investigation to examine source-message relationships in various platforms to compare the difference between information processing in traditional WOM and eWOM. Moreover, a more diversified sample of respondents can provide further findings and improve applicability to multiple groups of consumers.

An extended investigation on involvement and valence could be an interesting avenue for future research. This study only focuses on the task involvement, which is related to the importance and motivation to concentrate on the decision-making process. The involvement is driven by multiple factors so that different forms of involvement are potential to have different effects on the information processing (e.g. the enduring involvement in the decision-making process or the situational involvement within the
communication). Moreover, due to the diversification of communication platforms, valence should be further examined under different forms (e.g. comment valence, review valence or rating valence). The development of a multi-item scale for valence should be pursued to better reflect this construct.
Chapter 6: Paper 3

WOM information processing routes: The mediating role of message and source characteristics

Abstract

This study investigates WOM information processing routes from active WOM seeking behaviour. Employing the ELM, the direct and indirect effects of factors within information processing routes are examined in a credence service context. A deeper exploration of the causal chains of each route was conducted using serial mediation models of message quality and source characteristics. Data were collected in the higher education context from a survey of 509 high school students applying for tertiary study. Findings indicate that active WOM seeking and the serial mediation effects elicit two routes of information processing: central and peripheral. This study is amongst the first to intensively reveal the underlying causal chains of WOM processing, and supports the application of ELM theory in WOM research.

Keywords: WOM processing, active WOM seeking, WOM influence, credence service, ELM, task involvement
6.1 Introduction

WOM is prevalent in everyday communication (Chen & Berger 2016), and because of this is an important tool for marketing practitioners, hence the focus in marketing literature (e.g. Martin & Lueg 2013). In particular, research on WOM provides the tools for practitioners to more effectively tap into consumer communications. In the WOM literature, information processing theory elucidates how elements of communication interact with each other and are evaluated by consumers. Understanding the processes of how WOM persuades and influences consumer attitude has key implications for practice, providing practitioners with guidelines on how to effectively customise seeding messages and modify their WOM marketing strategies.

According to the ELM, information processing passes through two routes: central and peripheral (Petty & Cacioppo 1986); also referred to as the dual process of systematic and heuristic information (Chaiken 1980). Within WOM research, these two routes are represented by the two elements of communication: message and source (Hovland 1948). As major elements of WOM processing, message and source characteristics have been widely examined in WOM research (e.g. Cheung et al. 2008; Martin & Lueg 2013), such as how the message judgement and source credibility can shape the influence of WOM on consumers (e.g. Mahapatra & Mishra 2017). However, only single effects of message or source have been asserted.

While WOM information processing has been investigated, such research focusses on the direct effects of message and source characteristics on WOM effectiveness. However, it has not demonstrated the degree of elaboration likelihood and the causal chains of two routes, as the basis of ELM theory. Elaboration likelihood is determined by the motivation and ability to process, and leads to the central processing route when a message is evaluated (Petty & Cacioppo 1986). If the elaboration likelihood is low, processing will pass through the peripheral route in which the source characteristics and other peripheral cues are judged, only moving back to the central process if a peripheral attitude change occurs (Petty & Cacioppo 1986). Therefore, the processing routes undertaken by a consumer can be complex and investigating only the direct
effects of message and source may not demonstrate the full extent of the WOM processing routes.

This study contributes to the WOM literature in two ways. First, it examines the role of active WOM seeking behaviour, the factor that enhances motivation to process and the elaboration likelihood. Second, the present study investigates the path of influence of factors within the processing routes by analysing serial mediation effects. Demonstrating two routes, the main characteristics of message and source examined in this study are message quality, opinion leadership of source, and source closeness.

With active WOM seeking behaviour, consumers actively seek, search and receive WOM content (Chen & Berger 2016). For example, people can actively ask for information or access online forums to read discussions; in contrast, they passively receive information during a presentation or from a forwarded email. With the explosion of new media, consumers are empowered and have the choice now to be an active WOM seeker (Batra & Keller 2016).

However, previous WOM research is mostly grounded in the perspective that consumers are receivers, passively gaining WOM messages from sources’ transmissions (e.g. Stephen & Lehmann 2016). In fact, previous research uses the terms WOM listeners or WOM receivers rather than WOM seekers. Less scholarly attention has been paid to examining the ‘seeking’ part of WOM searching behaviours, that is, when consumers actively seek WOM. Therefore, there is little research concerning how WOM seekers process the WOM information sought.

Moreover, information processing is determined by multiple factors within communication which shape the motivation and ability of people to process (Petty & Cacioppo 1986). Of those, many factors (e.g. involvement, distraction, personal relevance or personal responsibility) are related to active seeking behaviour. Therefore, the impacts of active seeking WOM may be very different compared with the impacts for passive WOM recipients.

Active WOM seeking is common in contexts where consumers lack experience or where attributes, such as quality, are difficult to evaluate, even after purchase and
consumption. For example, consumers of credence services (e.g. education, health, and financial or legal advice) experience high perceived risk and information search difficulty (McColl-Kennedy & Fetter 2001), and thus have a greater dependency on personal information sources (Mitra et al. 1999) and rely more heavily on WOM (Bone 1995). Thus, credence services are an appropriate context in which to examine active WOM seeking behaviours.

The structure of this paper is as follows. First, ELM theory is reviewed and examined in relation to active WOM seeking and information processing. Next, the hypotheses and theoretical model are presented. The proposed theoretical model incorporates the relationships amongst the key variables, in particular, active WOM seeking, message quality, source characteristics, and the mediation effects. Third, the research methodology is detailed, followed by the results of data analysis, scale and model validation, the development of the structural model, and the analyses of serial mediation effects. The paper concludes with a discussion of the results, implications for theory and practice, identification of limitations, and suggestions for a future research agenda.

6.2 Theoretical Background

6.2.1 ELM theory of information processing

The Elaboration Likelihood Model (ELM theory) was proposed to demonstrate the information processing when people are exposed to information, by identifying the factors and routes of processing to persuasion (Petty & Cacioppo 1986). It differentiates the central route from the peripheral route, based on the elaboration likelihood of processing the message (Cacioppo & Petty 1984; Chaiken 1980). The ELM postulates a continuum of message elaboration anchored at the high-end by the central processing and at the low-end by the peripheral processing (Petty & Cacioppo 1984, 1986). Because ELM theory can describe how people process the information they are exposed to, it has been widely used to demonstrate the information processing of WOM messages by consumers. In the WOM literature, ELM has been cited as an appropriate theoretical background to examine the effects of two main factors: message for central processing route, and source for peripheral processing route (e.g. Mahapatra
The characteristics of message and source in WOM communication have been examined in various research settings, and most of the findings indicate the significant effects of both source and message (e.g. Cheung et al. 2008; Mahapatra & Mishra 2017).

Although previous WOM studies refer to ELM theory to examine the message and source, the essence of the theory, the involvement in the task and the engagement with the conversation have rarely been mentioned. Recognition of these factors is crucial, as they can moderate the motivation and ability to process the message, consequently facilitating the elaboration likelihood and the route of processing. When motivation (e.g. moderated by perceived risk, task importance) and ability (e.g. moderated by distraction, prior knowledge) to process information is high, central processing occurs and message evaluation leads to persuasion. In such cases, the message characteristics are influential and the source characteristics are relatively less important (Petty & Cacioppo 1984). Therefore, investigating source and message without taking into account the involvement and active engagement of consumers is a gap in the WOM literature. The present study takes into account the roles of such factors, represented by active WOM seeking in the credence service context.

In summary, when both the motivation and ability to process are high, central processing occurs; when the motivation and ability to process are low, information is processed through the peripheral route (Petty & Cacioppo 1984). In the present study, active WOM seeking is related to high motivation whereas evaluating credence service attributes is associated with low ability. Chaiken and Maheswaran (1994) argued that, when the task importance is high and the message is ambiguous, both central and peripheral processing influence attitudes. However, the WOM processing in this case has not been investigated in the WOM literature. This high motivation but low ability communication processing would lead to the effects of both source and message.

6.2.2 WOM constructs: active seeking and WOM influence

Active WOM seeking behaviour from consumers is evidenced by their high engagement in face-to-face conversations, and by the nature of online searches and
information seeking, which necessitates a consumer knowing what they are searching for, thus leading to stronger impact on purchase decisions (Chen & Berger 2016; Fang et al. 2011). Requesting WOM, or active WOM seeking, is defined as ‘the process of vigorously seeking and ultimately attaining a message’ (Bansal & Voyer 2000, p. 167). Consumers who attempt to acquire information, most commonly by asking questions, usually experience stronger WOM influences on their decision making (Bansal & Voyer 2000; Fang et al. 2011). Active WOM seeking is a signal of a highly involved information acquisition process, necessitated by the need to complete a difficult task or make a high-risk decision (Goldsmith & Horowitz 2006; Voyer & Ranaweera 2015).

The effectiveness of WOM has been investigated to indicate different types of WOM outcomes, for example, attitude and judgement (Ballantine & Yeung 2015; Bone 1995), service purchase decision (Baker et al. 2016; Voyer & Ranaweera 2015), purchase intention (Martin & Lueg 2013; Prendergast et al. 2010), message retransmission (Baker et al. 2016; Mahapatra & Mishra 2017) and service switching (Wangenheim & Bayón 2004). Within the scope of the present study, the effects of active WOM seeking and factors of WOM processing are the focus. Thus, a particular type of WOM outcome is not examined. In line with research on WOM processing in service contexts (e.g. Bansal & Voyer 2000; Voyer & Ranaweera 2015), the construct of WOM influence is utilised in this study to represent other WOM outcomes and plays the role of the main dependent variable in the conceptual model. WOM influence is the change in attitude or behavioural intention as a consequence of information exchange during WOM communication (Gilly et al. 1998).

6.3 Research Model and Hypotheses

6.3.1 Active WOM seeking and task involvement

WOM is considered more effective than any external information sources, mainly because of its non-commercial nature (Goldsmith & Horowitz 2006; Mangold 1988). People share their recommendations or referrals in everyday life, and consumers can acquire WOM content in different ways (Chen & Berger 2016). However, the focus for much of the WOM research is on WOM receiving behaviours, and as a result, active
WOM seeking behaviour has received little attention from marketing and communication scholars.

Beside active WOM seeking, involvement has also attracted much attention in the marketing literature (Huang 2006). However, there is no WOM research distinguishing these two constructs. Different from active WOM seeking, which refers to the attention and engagement in a situational state, involvement is related to an enduring state of engaging in the purchase context (Roser 1990). In order to differentiate two concepts, the terms active WOM seeking and task involvement are used in this paper.

Task involvement is conceptualised as the perceived relevance in the mind of a consumer regarding an object, based on values, inherent needs, and interests, where an object can be a service, advertisement, or purchase decision (Zaichkowsky 1985). Task involvement is related to the personal relevance and engagement in the purchase context, driven by the perceived risks or the task difficulty (Voyer & Ranaweera 2015). Higher involvement in the decision-making process would encourage consumers to more actively seek information from WOM. Hence (Figure 6.1):

\[ H1: \text{Task involvement is positively related to active WOM seeking} \]

6.3.2 Active WOM seeking and message characteristics

When consumers actively seek information from WOM sources, it is apparent that the elaboration likelihood is high and leads to the engagement of the central route processing (Cacioppo & Petty 1984). The central route is manifested by WOM message evaluation (Mahapatra & Mishra 2017). In WOM literature, message characteristics are the factors that influence WOM effectiveness (Sweeney et al. 2008).

There are many message characteristics examined in WOM research, for example, message type (Duhan et al. 1997), valence (Bone 1995), message content and message delivery (Sweeney et al. 2012). Consistent with ELM theory which posits that message content and arguments are evaluated in central route (Cheung et al. 2008; Petty & Cacioppo 1986), message quality is the construct mostly processed within the central route, whilst other characteristics (e.g. number of arguments) may be more related to
peripheral cues. In the present study, this construct is reflected in the quality of issue-relevant messages received in the credence service context. When consumers actively seek information from WOM, they might spend greater efforts in evaluating the messages sought, enhancing the quality judgement of the message (H2). In turn, the quality of message content positively impacts on the influence of WOM (H3). Thus, we hypothesise as follows (see Figure 6.1):

\[ H2: \text{Active WOM seeking is positively related to perceived WOM message quality} \]
\[ H3: \text{Perceived WOM message quality is positively related to WOM influence} \]

6.3.3 Active WOM seeking and source characteristics

Aside from message characteristics, source characteristics are also important factors in WOM effectiveness (Sweeney et al. 2008). As discussed previously, in the situation of high motivation and low ability to process, source and message would both have effects on WOM influence. Indeed, Kang and Herr (2006) note that central and peripheral routes may coexist, especially when the message is ambiguous (Chaiken & Maheswaran 1994). Such a finding is especially relevant for credence contexts, as message ambiguity is likely to occur.

There are many source characteristics that have been examined in the WOM literature, for example, opinion leadership, expertise, tie strength/homophily, and trustworthiness (Le et al. 2018; Sweeney et al. 2008). According to the model of Sweeney et al. (2008), the perceived characteristics of WOM source can be of two types: personal or interpersonal. Opinion leadership as a personal characteristic, and source closeness as an interpersonal characteristic, are examined in the present study. By investigating these two constructs, the WOM processing routes of source and message are examined, as well as the two types of source characteristics being also analysed from a comparative view.

Based on the previous theoretical discussion, source characteristics are tested through three relationships. First, active WOM seeking has a relationship with the source characteristics, which relationship occurs in the peripheral information processing
route (H4 and H5). Second, source characteristics have a relationship with message quality, as the judgement of source may lead to the elaboration and positive evaluation of the message (Petty & Cacioppo 1986) (H6 and H7). Third, the source characteristics have direct effects on WOM influence (H8 and H9). Although the direct effects of these source characteristics have been examined in prior research, in this model the presence of message quality as central information processing route may suppress these effects, so that these hypotheses should be retested. Thus, mediation analyses are also required; and these are discussed in the next section.

An opinion leader is described as a person who has specific experience of and knowledge about a product category and is consulted or able to spread information about that specific product (Stokburger-Sauer & Hoyer 2009). Opinion leadership has been considered as a characteristic of WOM sources which impacts on the influence the WOM has on the consumer (Gilly et al. 1998; Sweeney et al. 2008). In comparison to the similar construct of market mavens (or source experts) who have general knowledge about markets and various kinds of product, opinion leadership has been found to have a greater impact on WOM usage (Martin & Lueg 2013). In the credence service context, where special knowledge is required about the specific attributes of the service, opinion leadership best represents a personal source characteristic. Following the hypothesis development in the previous paragraph, we hypothesise as follows (see Figure 6.1):

\textit{H4: Active WOM seeking is positively related to perceived opinion leadership of WOM source}

\textit{H6: Perceived opinion leadership of WOM source is positively related to perceived WOM message quality}

\textit{H8: Perceived opinion leadership of WOM source is positively related to WOM influence}

When consumers are highly involved in the purchase decision and actively seek WOM information, the closeness of the source to the WOM seeker may also influence the seeker information processing. Source closeness represents an interpersonal characteristic of the WOM source, incorporating tie strength and homophily (Sweeney et al. 2008), two constructs that have been widely studied in the WOM literature (e.g.
Baker et al. 2016; Prendergast et al. 2010; Reichelt et al. 2014; Voyer & Ranaweera 2015). Active WOM seekers are likely to approach sources who are more similar and close to them, due to the perception this would make the information acquisition process easier and more comfortable. The closeness of source to seeker is also likely to enhance the perceptions of the message quality and consequent influence the WOM has on the seeker. Following the hypothesis development in the previous paragraph, we hypothesise as follows (see Figure 6.1):

\[ H_5: \text{Active WOM seeking is related to perceived closeness of WOM source} \]

\[ H_7: \text{Perceived closeness of WOM source is related to perceived WOM message quality} \]

\[ H_9: \text{Perceived closeness of WOM source is related to WOM influence} \]

Figure 6.1: Research model

6.3.4 Serial mediation effects

ELM theory proposes the two routes, such that information processing follows a series of evaluations. Thus, the effects of precursors are mediated by other factors in their effects on outcomes. For example, active WOM seeking could be mediated by message quality to have an indirect effect on WOM influence. As the previous sections propose
the relationships of factors within the WOM processing, the casual chains of such factors should be analysed. Serial mediation effects are hypothesised to clarify such casual chains (Hayes 2013). The central route is the casual chain from involvement to WOM influence (Involvement \(\rightarrow\) Active WOM seeking \(\rightarrow\) Message quality \(\rightarrow\) WOM influence) (Serial Model 1). Regarding peripheral route, ELM theory argues that, if peripheral cues enable the peripheral attitude shift, the elaboration is enabled and the processing comes back to the central cognitive route and attitude change, in that sequence (Petty & Cacioppo 1986). This is described in terms of two serial mediation effects (Active WOM seeking \(\rightarrow\) Opinion leadership \(\rightarrow\) Message quality \(\rightarrow\) WOM influence) (Serial Model 2) and (Active WOM seeking \(\rightarrow\) Closeness \(\rightarrow\) Message quality \(\rightarrow\) WOM influence) (Serial Model 3). These three serial models are examined to identify the causal chains of factors and the connection of ELM processing routes.

6.4 Method

6.4.1 Sample and data collection

Higher education was selected as the context of this study, as it is a credence service in which the potential consumers need to evaluate various attributes that are difficult to evaluate even after purchase and consumption (Walsh et al. 2015). Higher education choice is a complex and one-off purchase which requires a significant time investment and high involvement from the prospective student (Walsh et al. 2015). The choice has long-term repercussions for the student, and thus requires them to intensively acquire information from WOM sources (Patti & Chen 2009). Due to the importance of the task, potential students spend greater effort in the decision-making process and actively seek information. Therefore, this is a suitable context to examine active WOM seeking behaviour.

This study utilised cross-sectional data to test the hypotheses. A survey was delivered to final-year high school students who were considering applying for admittance to a university program. The hard-copies of questionnaire were delivered to three high schools located in Ho Chi Minh City, Vietnam; and a total of 509 respondents have
been used for data analysis, equating to a 35.73 per cent response rate across the three schools.

6.4.2 Measures and analysis procedure

The measures used in this study were adapted from existing scales to suit the research context, and all scales were measured using a seven-point Likert scale (1 = totally disagree; 7 = totally agree). Active WOM seeking and WOM influence were measured by scales adopted from Bansal and Voyer (2000). The five-item scale of task involvement was adapted from the involvement index of Zaichkowsky (1985). Message quality was measured by an eight-item scale adopted from Sweeney et al. (2012). A seven-item measurement scale adapted from Sweeney et al. (2014) and Frenzen and Davis (1990) was used to ascertain closeness. Opinion leadership was measured using a six-item scale adopted from Childers (1986).

The questionnaire was pre-tested with five Vietnamese academics to ensure the accuracy of the translation and the validity of the measurement items. A further five final-year high school students pre-tested the questionnaire for the suitability of the language for the research sample. Following cleaning and coding of the data, the analysis procedure first examined the measurement model and the structural model. The measurement model was tested by exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) techniques. Reliability (Cronbach’s alpha and composite reliability) and validity (convergent and discriminant validity) tests were performed to validate the scales before the main stage of analysis. The path analysis was performed by using the structural equation modelling method with AMOS. The serial mediation roles were assessed using the bootstrapping method developed by Preacher and Hayes (2008) and implemented through the PROCESS macro offered by Hayes (2013).

6.5 Results

For measurement validation, principal component factor analysis was first performed, with acceptable results and no significant cross-loadings. Next, confirmatory factor analysis (CFA) was performed using AMOS 22. Factor loadings of all items in CFA
exceed 0.6, which are correlated with the latent constructs (Appendix 6.1). The model fit indices, reported in Table 6.1, demonstrated good model fit (Hu & Bentler 1999). All latent constructs achieved satisfying the conditions regarding reliability and validity (Hair et al. 2006). The internal consistency and convergent validity of the latent constructs also received support, with the composite reliability (CR) and Cronbach’s alpha (α) scores all greater than 0.7 and average variance extracted (AVE) values exceeding the recommended value 0.5 (Table 6.1) (Fornell & Larcker 1981; Hair et al. 2006). Moreover, the square roots of AVE of all factors are greater than the correlation coefficients between any pair of the constructs, thus the discriminant validity of all factors are satisfied (Table 6.1) (Fornell & Larcker 1981).

Table 6.1: Correlations and model fit indices

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>MQ</th>
<th>CL</th>
<th>IN</th>
<th>OL</th>
<th>IN</th>
<th>SE</th>
<th>AVE</th>
<th>CR</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message quality</td>
<td>4.53</td>
<td>1.09</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.565</td>
<td>0.912</td>
<td>0.915</td>
</tr>
<tr>
<td>(MQ)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closeness</td>
<td>4.22</td>
<td>1.72</td>
<td>0.31</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.624</td>
<td>0.919</td>
<td>0.932</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>Involvement</td>
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<td>0.24</td>
<td>0.11</td>
<td>0.72</td>
<td></td>
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<td>0.524</td>
<td>0.814</td>
<td>0.809</td>
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<tr>
<td>(IN)</td>
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<td>*</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opinion leadership</td>
<td>4.70</td>
<td>1.39</td>
<td>0.64</td>
<td>0.25</td>
<td>0.14</td>
<td>0.73</td>
<td></td>
<td></td>
<td>0.543</td>
<td>0.778</td>
<td>0.764</td>
</tr>
<tr>
<td>(OL)</td>
<td></td>
<td></td>
<td>**</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence</td>
<td>4.08</td>
<td>1.13</td>
<td>0.59</td>
<td>0.08</td>
<td>0.23</td>
<td>0.42</td>
<td>0.73</td>
<td></td>
<td>0.542</td>
<td>0.779</td>
<td>0.774</td>
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<td>**</td>
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</tr>
<tr>
<td>Seeking</td>
<td>4.60</td>
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<td>0.22</td>
<td>0.26</td>
<td>0.34</td>
<td>0.39</td>
<td>0.78</td>
<td>0.621</td>
<td>0.766</td>
<td>0.765</td>
</tr>
<tr>
<td>(SE)</td>
<td></td>
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<td>**</td>
<td>**</td>
<td></td>
<td></td>
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</tbody>
</table>

N = 509; M = Mean; SD = Std. Deviation; α = Cronbach’s alpha; CR = Composite reliability; AVE = Average variance extracted;

Numbers in bold represent the square roots of AVE

Model Fit indices: Chi-square = 791.618, df = 304, Chi-square/df = 2.604, RMSEA = 0.056, SRMR = 0.054, CFI = 0.941, and PClose = 0.017

*p < 0.05, **p < 0.01
The results of the structural equation model (SEM) are reported in Table 6.2. A significant positive relationship between Task Involvement and Active WOM seeking ($\beta = .315, p < 0.01$) supports H1. In relation to the central processing, there are significant relationships between Active WOM seeking and Message quality ($\beta = .246, p < 0.01$), supporting H2; and a strong relationship between Message quality and WOM influence ($\beta = .666, p < 0.01$), supporting H3. In relation to the peripheral processing, Active WOM seeking has significant relationships with both Opinion leadership ($\beta = .419, p < 0.01$), supporting H4, and Closeness ($\beta = .251, p < 0.01$), supporting H5. The relationship between Opinion leadership and Message quality ($\beta = .589, p < 0.01$) is also supported (H6), as is that between Closeness and Message quality ($\beta = .120, p < 0.01$), supporting H7. However, and likely due to the mediation effect of Message quality, the direct effects of Opinion leadership and Closeness on WOM influence are weak. There is no significant relationship between Opinion leadership and WOM influence ($\beta = .058, n.s.$), leading us to reject H8. Finally, a significant, albeit weak, negative relationship was found between Source Closeness and WOM Influence ($-.150, p < 0.01$), supporting H9.

Table 6.2: Results of structural model

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Standardised Estimate</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task involvement $\rightarrow$ Active seeking</td>
<td>.315**</td>
<td>.000</td>
</tr>
<tr>
<td>Active seeking $\rightarrow$ Message quality</td>
<td>.246**</td>
<td>.000</td>
</tr>
<tr>
<td>Message quality $\rightarrow$ WOM influence</td>
<td>.666**</td>
<td>.000</td>
</tr>
<tr>
<td>Active seeking $\rightarrow$ Opinion leadership</td>
<td>.419**</td>
<td>.000</td>
</tr>
<tr>
<td>Active seeking $\rightarrow$ Closeness</td>
<td>.251**</td>
<td>.000</td>
</tr>
<tr>
<td>Opinion leadership $\rightarrow$ Message Quality</td>
<td>.589**</td>
<td>.000</td>
</tr>
<tr>
<td>Closeness $\rightarrow$ Message Quality</td>
<td>.120**</td>
<td>.000</td>
</tr>
<tr>
<td>Opinion leadership $\rightarrow$ WOM Influence</td>
<td>.058</td>
<td>.205</td>
</tr>
<tr>
<td>Closeness $\rightarrow$ WOM Influence</td>
<td>-.150**</td>
<td>.000</td>
</tr>
</tbody>
</table>
R squared values:
Active seeking: 0.099; Closeness: 0.063; Opinion leadership: 0.175; Message quality: 0.574; WOM Influence: 0.473

| N = 509, *p < 0.05, **p < 0.01 |

To test the serial mediation effects, a bootstrap sample of 5000 cases with a 95% confidential interval (CI) was performed, and the results are presented in Table 6.3. Mediation was assessed by the total indirect effect and CI limits: lower level CI (LLCI) and upper level CI (ULCI). If the CI contained the value zero, the mediation effect is not statistically significant; if the CI does not contain value zero, the mediation effect can be confirmed (Hayes 2013).

With the central route of Serial Model 1, total indirect effects and indirect effects of this path are all significant, with the bootstrap CI limits not containing value 0. The direct effect from Involvement to WOM influence is also significant (p < 0.05). Thus, the findings indicate a partial mediating effect of the two mediators (Active seeking and Message quality) on the relationship from Involvement to WOM influence.

The peripheral route is demonstrated by the two Serial Models 2 and 3. The direct effect from Active seeking to WOM influence is significant (p < 0.05) for both models. The total indirect effects of Serial Models 2 and 3 are significant, with the bootstrap CI limits excluding value 0. Therefore, the results indicate partial mediating effects of the Serial Models 2 and 3.

The indirect effect of Active seeking on WOM influence via the mediator Opinion leadership is found to be insignificant, with the bootstrap CI limits containing value 0. Thus, Opinion leadership does not mediate the relationship between Active seeking and WOM influence. The indirect effect of Active seeking on WOM influence via the mediator of Closeness is negative and significant, with the bootstrap CI limits excluding value 0. Thus, Closeness has a negative mediating effect on the relationship between Active seeking and WOM influence.
Table 6.3: Bootstrap test of serial mediation effects

Serial Model 1:
Involvement → Active seeking → Message quality → WOM influence

<table>
<thead>
<tr>
<th>Direct Effect</th>
<th>Effect</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement to WOM influence</td>
<td>.1021</td>
<td>.0456</td>
<td>2.2367</td>
<td>.0257</td>
<td>.0124</td>
<td>.1918</td>
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</table>

<table>
<thead>
<tr>
<th>Indirect Effects</th>
<th>Effect</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total indirect effect</td>
<td>.2700</td>
<td>.0417</td>
<td>.1919</td>
<td>.3515</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement to Active seeking to WOM influence</td>
<td>.0663</td>
<td>.0197</td>
<td>.0312</td>
<td>.1094</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement to Active seeking to Message quality to WOM influence</td>
<td>.1134</td>
<td>.0197</td>
<td>.0796</td>
<td>.1580</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement to Message quality to WOM influence</td>
<td>.0903</td>
<td>.0326</td>
<td>.0293</td>
<td>.1562</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Serial Model 2:
Active seeking → Opinion leadership → Message quality → WOM influence

<table>
<thead>
<tr>
<th>Direct Effect</th>
<th>Effect</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active seeking to WOM influence</td>
<td>.1808</td>
<td>.0394</td>
<td>4.5944</td>
<td>.0000</td>
<td>.1035</td>
<td>.2581</td>
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<table>
<thead>
<tr>
<th>Indirect Effects</th>
<th>Effect</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
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<tbody>
<tr>
<td>Total indirect effect</td>
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<td>.0344</td>
<td>.2485</td>
<td>.3844</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active seeking to Opinion leadership to WOM influence</td>
<td>.0135</td>
<td>.0229</td>
<td>-.0314</td>
<td>.0590</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active seeking to Opinion leadership to Message quality to WOM influence</td>
<td>.1462</td>
<td>.0213</td>
<td>.1082</td>
<td>.1936</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active seeking to Message quality to WOM influence</td>
<td>.1512</td>
<td>.0247</td>
<td>.1072</td>
<td>.2054</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Serial Model 3:
Active seeking → Closeness → Message quality → WOM influence

<table>
<thead>
<tr>
<th>Direct Effect</th>
<th>Effect</th>
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<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active seeking to WOM influence</td>
<td>.2002</td>
<td>.0385</td>
<td>5.1995</td>
<td>.0000</td>
<td>.1246</td>
<td>.2759</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Indirect Effects</th>
<th>Effect</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
</table>

136
6.6 Discussion and Conclusion

6.6.1 Discussion

The findings reveal the effect of active WOM seeking in WOM processing, and demonstrate the presence of the two processing routes proposed in ELM theory. There are three key findings from the results of this study: the strong effect of the central route in WOM information processing; the effects of source characteristics on WOM influence via the mediating variable of message quality within the peripheral route; and the different roles of opinion leadership and source closeness.

First, the findings indicate the significant impact of central processing route, as all mutual direct effects from involvement, active WOM seeking and message quality on WOM influence (Hypotheses H1 to H3) are highly significant. The main effect between message quality and WOM influence is the strongest relationship in the model, and it appears to suppress the impact of opinion leadership and closeness on WOM influence. Furthermore, the mediation tests of three serial models revealed the significant mediating effect of message quality. The strong mediating role of message quality indicates that active WOM seeking effects WOM influence indirectly through the quality of the message content. This is consistent with ELM theory which suggests that central processing occurs and the likelihood of elaboration is high when consumers have high motivation to process (Cacioppo & Petty 1984). Elaboration is enabled in
the highly motivated situation when consumers actively seek information, especially when they have a need for cognition when evaluating credence service attributes.

Second, the findings also identify the existence of the peripheral information processing route via two source characteristics. Despite a high motivation to process, credence service consumers are likely to lack the ability to directly evaluate messages regarding credence attributes, and thus turn to the evaluation of peripheral cues such as the source characteristics. The relationships between active WOM seeking and opinion leadership/closeness were found to be significant, indicating that the consumers who are actively seek WOM information evaluate the characteristics of WOM sources. Evaluating sources adjusts the peripheral attitude, enabling elaboration and leading information processing back to the central route. The significant mediating effects in serial models 2 and 3 validate this casual chain of peripheral-to-central route. In addition, the direct effect of opinion leadership on WOM influence is not supported, and the direct effect of closeness on WOM influence, while statistically significant, was very weak. This reinforces support for the peripheral-to-central route and demonstrates that source evaluation does not directly lead to WOM influence but is instead mediated via message evaluation.

Third, when evaluating source characteristics, opinion leadership is most likely to attract WOM seekers. The relationship between active WOM seeking and opinion leadership is stronger than that between WOM seeking and source closeness; and likewise, the relationship between opinion leadership and message quality is stronger than that between source closeness and message quality. This supports the role of opinion leadership as the most effective WOM source (Gilly et al. 1998; Martin & Lueg 2013). The inconsistent role of source closeness in the present study reflects similar findings in prior research (e.g. Reichelt et al. 2014). These inconsistencies may be explained by the context. Within the credence service context of higher education, the close sources of consumers can be their families or friends. Such sources are easy to access for active WOM seekers, but they may not be highly reliable and may also lack of experience of the higher education sector, leading the prospective student to not place much weight on the information received from such sources.
6.6.2 Theoretical and practical implications

This study examines the information processing from active WOM seeking in a credence service sector. Along with the direct paths tested with SEM, serial mediation tests further clarify the routes within WOM processing. The results support ELM theory, as high engagement in information acquisition leads to high elaboration and central processing. Moreover, the occurrence of peripheral processing, which then returns to central processing, contributes to the understanding and application of ELM theory in WOM research, advancing previous studies which only utilised this theory to introduce the message and source.

Active WOM seeking has received little attention in the literature, and the credence service context is rarely examined by WOM research despite the practical importance of WOM for credence service consumers. Analysing active WOM seeking behaviour in this context is both relevant and important, as consumers are more active in this context due to the importance of task and search difficulty. WOM processing may also differ in the credence service contexts, as the close relationships in this context may not be reliable information sources. Moreover, task involvement and active seeking, representing enduring and situational involvement, have been rarely distinguished within a single WOM study. By examining both of these, the results of this study contribute to our understanding of the relationships of enduring involvement and situational attention within the information processing.

This study has several implications for practitioners, managers and marketers, especially in the credence service context. Although WOM is a form of non-commercial communication, practitioners can encourage WOM messages through influencers and referral programs. Previous WOM research has focused on consumers receiving WOM rather than actively seeking WOM. Such a focus has provided the impetus for suggestions to marketing practitioners to generate ‘push’ communication strategies and tactics that encourage transmission. Research from the WOM seeking perspective would encourage the development and usage of ‘pull’ communication strategies. Moreover, practitioners should focus on generating ‘attractive’ messages to draw the attention of WOM seekers, reflecting that message evaluation is the most important in
WOM processing. However, the role of the sources should not be forgotten in WOM strategies, as the credibility of the source shapes the persuasion of the WOM messages, particularly for complex messages about credence attributes. Thus, in the credence service context, where opinion leaders are the most influential source, identifying appropriate sources is significant to the success of WOM communication strategies. In addition, although close relationships are widely considered as influential, the results from this study suggest that focusing on strategies using close sources should be carefully considered, as the effects are likely to differ across contexts.

6.6.3 Limitations and future research

It is important to consider methodological and theoretical limitations when interpreting the results of this study. First, the investigation was conducted in a higher education context, which may limit the generalisation of the findings. Considering that credence services are distinctive and require more active WOM seeking behaviour, future research in other sectors may enlighten as to how WOM seekers process information sought across contexts. Such research could also consider non-credence services.

Second, this study does not take into account the differences of WOM across channels and platforms. As offline WOM seekers may differ from online WOM seekers, future research should compare the nature of WOM seeking behaviour and information processing in various channels. The characteristics of online platforms, which can be considered as peripheral cues, may affect the WOM processing routes described in this study.

Third, the inconsistencies in the role of source closeness in this study and prior research warrant further investigation. Our findings demonstrate the weak impact of close sources in the credence service sector. However, further examination of this construct across different contexts may help scholars and practitioners to understand the role of source closeness more thoroughly.

In addition, identification issues in the SEM path analysis potentially occur in this model, as the paths to the endogenous variables are greater than the number of
exogenous variables. Therefore, future research should focus on each relationship and re-test to confirm the result.

### Appendix 6.1: Measurement scale used

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Factor loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task Involvement</strong></td>
<td><strong>Zaichkowsky (1985)</strong></td>
<td></td>
</tr>
<tr>
<td>Attending university will be very valuable to me.</td>
<td>.669</td>
<td></td>
</tr>
<tr>
<td>Attending university will be very beneficial to me.</td>
<td>.768</td>
<td></td>
</tr>
<tr>
<td>The process of selecting a university is very exciting.</td>
<td>.706</td>
<td></td>
</tr>
<tr>
<td>I really want to attend university.</td>
<td>.747</td>
<td></td>
</tr>
<tr>
<td><strong>Active WOM seeking</strong></td>
<td><strong>Bansal and Voyer (2000)</strong></td>
<td></td>
</tr>
<tr>
<td>I explicitly requested information from this person to help with my choice of university.</td>
<td>.766</td>
<td></td>
</tr>
<tr>
<td>I made a number of attempts to gather information from this person to help with my choice of university.</td>
<td>.809</td>
<td></td>
</tr>
<tr>
<td><strong>Message quality</strong></td>
<td><strong>Sweeney et al. (2012)</strong></td>
<td></td>
</tr>
<tr>
<td>The message was informative.</td>
<td>.741</td>
<td></td>
</tr>
<tr>
<td>The message was reliable.</td>
<td>.784</td>
<td></td>
</tr>
<tr>
<td>The message was clear.</td>
<td>.799</td>
<td></td>
</tr>
<tr>
<td>The message was specific.</td>
<td>.767</td>
<td></td>
</tr>
<tr>
<td>The message was elaborate.</td>
<td>.776</td>
<td></td>
</tr>
<tr>
<td>The message was explicit.</td>
<td>.748</td>
<td></td>
</tr>
<tr>
<td>The message was intense.</td>
<td>.712</td>
<td></td>
</tr>
<tr>
<td>The message was reinforcing.</td>
<td>.676</td>
<td></td>
</tr>
<tr>
<td><strong>Opinion leadership</strong></td>
<td><strong>Childers (1986); King and Summers (1970)</strong></td>
<td></td>
</tr>
<tr>
<td>This person provided me with a great deal of information about universities.</td>
<td>.604</td>
<td></td>
</tr>
<tr>
<td>In a discussion about universities with this person, I am more likely to receive information from them than I provide in return.</td>
<td>.756</td>
<td></td>
</tr>
<tr>
<td>In general, I often use this person as a source of advice.</td>
<td>.833</td>
<td></td>
</tr>
<tr>
<td><strong>Closeness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This person has a close relationship with me.</td>
<td>.885</td>
<td></td>
</tr>
<tr>
<td><strong>Frenzen and Davis (1990); Sweeney et al. (2014)</strong></td>
<td><strong>I can share my personal thoughts with this person.</strong></td>
<td>.925</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td><strong>I try to help this person whenever I can.</strong></td>
<td>.871</td>
</tr>
<tr>
<td></td>
<td><strong>I usually spend free time with this person.</strong></td>
<td>.846</td>
</tr>
<tr>
<td></td>
<td><strong>We have a similar outlook on life.</strong></td>
<td>.672</td>
</tr>
<tr>
<td></td>
<td><strong>We share common interests.</strong></td>
<td>.660</td>
</tr>
<tr>
<td></td>
<td><strong>We have similar likes and dislikes.</strong></td>
<td>.606</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>WOM Influence Bansal and Voyer (2000)</strong></th>
<th><strong>This conversation has a significant influence on my university choice decision.</strong></th>
<th>.665</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>This conversation mentioned helpful things I had not considered.</strong></td>
<td>.804</td>
</tr>
<tr>
<td></td>
<td><strong>This conversation really helped me make the decision about selecting a university.</strong></td>
<td>.732</td>
</tr>
</tbody>
</table>
Chapter 7: Paper 4

Understanding high school students use of choice factors and word-of-mouth information sources in university selection

Abstract

University choice is a high-risk decision for prospective students, which requires substantial effort to evaluate a range of choice factors. Understanding this complex process is a crucial task for marketers in the higher education sector, especially understanding the differences across market segments. This study analyses the importance of choice factors, and the usage of information sources, across domestic/international segments and cross-country segments, and explores which choice factors are delivered via the information sources of WOM. Different from previous studies which collected data in the countries of destination, this study employs a data sample of prospective students from the country of origin of Vietnam, an emerging market of international education. The findings provide insight into the key choice factors and information sources by market segment, with implications for the targeted marketing strategies of higher education providers discussed.

Keywords: choice factors, word-of-mouth, university choice, segmentation, Vietnam
7.1 Introduction

In the past, the national university entrance examination was the only option if high school students in Vietnam wanted to pursue higher education (Dao & Thorpe 2015; Tran et al. 2016). Students who earned high scores entered prestigious universities, others entered lower-level universities or vocational colleges, whilst many other students would decide to wait another year and prepare for the following examination. Today, a fourth education path is open to students: forgoing the national entrance exam and applying to study at a tertiary institution abroad. This is not a trend unique to Vietnam but in many developing countries, where an emerging middle class and the globalisation of education has stimulated the wave of students studying abroad (OECD 2017). From a higher education marketing perspective, this trend has developed new segments of prospective students whose choice behaviour, including the factors students consider when selecting universities and their information search process, differ from that in their local market segments, and thus requires a revised understanding of student choice behaviours. A research on these factors across segments is beneficial to higher education marketers, both in destination countries and source countries of international students.

The objective of this study is to explore the differences on these factors across student segments, mainly between students who would study domestically and students who would study abroad, due to the waves of student mobility. The trend of global student mobility in higher education has seen the number of international students double over the last two decades to reach four million in 2013 (Choudaha 2017). In examining this trend, academic research has focused on the perspective of developed countries or international education hubs (e.g. Maringe & Carter 2007; Min & Falvey 2017; Shanka et al. 2006; Wilkins & Huisman 2015), for example surveying international students who were already in the destination countries to understand their decision to study abroad (e.g. Maringe & Carter 2007). This focus has led to a dearth of research investigating the perceptions of prospective students in their home countries and their behavioural intention, prior to their departure, in order to determine the desired factors of a potential overseas university. Such knowledge would be significant to the
international recruitment strategies of universities, as prospective students submit admissions applications from their home countries with the decision on which universities to apply to often based on the factors perceived while they are high school students.

To examine the factors in relation to the selection of university for globally mobile students, this study focuses on exploring and comparing the factors of high school students in a key country of origin for international students, Vietnam. Specifically, this study compares four segments of students: those seeking to study abroad, students aiming to study in their home country, undecided students, and a comparative group of domestic students in a key destination country. Through an examination of the factors which different segments consider during the decision-making process, our findings enhance the understanding on prospective students’ behavioural intention. It contributes to the marketing strategies of various actors in higher education sector, such as push and pull communication strategies aimed at attracting international students (Mazzarol & Soutar 2002).

The selection of which university to apply to is influenced by a wide range of factors, such as the personality of the student, characteristics of institutions, or influential information sources (Hemsley-Brown & Oplatka 2015). In the present paper, similar to Briggs (2006) or Simões and Soares (2010), factors influencing students’ choice include, but differentiate, two forms: first, the choice factors regarding characteristics (and related factors) of universities (e.g. Veloutsou et al. 2004); and second, the information sources from which they seek advice and information (e.g. Bonnema & Van der Waldt 2008; Obermeit 2012). The choice factors and information sources were analysed across four selected segments to capture the differences in preference and importance of choice factors and information sources evaluated by these segments. Of information sources, marketer-controlled and WOM are categorised. As WOM is an influential source but is interpersonal communication which is difficult to observe and therefore little studied in higher education marketing field, we further explore which choice factors are discussed in WOM conversations of students.
7.2 The Decision-Making Process of Prospective Students

From marketing perspective, higher education is classified as a service, with the characteristics of intangibility, perishability, simultaneity and variability (Brown et al. 2009; Simões & Soares 2010). Moreover, higher education is a credence service (Kamal Basha et al. 2015; Patti & Chen 2009), with most of its characteristics being difficult for consumers to evaluate even after purchase and consumption (Walsh et al. 2015). University choice is usually an one-off decision which results in an extended consumption experience of three to four years, and the decision can have further long-term effects on the career of the ‘consumers’ (Moogan et al. 1999; Walsh et al. 2015). Therefore, the selection of a university and degree program is considered a high risk decision which involves many types of risks (i.e. financial, psychological, functional and social) (reviewed in Kamal Basha et al. 2015; Simões & Soares 2010). The perceived risk and the uniqueness of this service increase the involvement of consumers in the decision-making process of university choice, especially in international higher education (Kamal Basha et al. 2015).

The decision-making process of prospective students starts from the time when they recognise the need to pursue higher education, and finishes with the purchase (Moogan et al. 1999). The pre-purchase stages of higher education choice are comprised of problem recognition, information search, and evaluation of alternatives (Brown et al. 2009; Moogan & Baron 2003). As higher education is a complex service and higher education choice is a high risk decision, there are many models developed to conceptualise the decision-making process and the related factors (e.g. Chapman 1981; Chapman 1986; Cubillo et al. 2006; Moogan & Baron 2003; Moogan et al. 1999). The model by Chapman (1981) focuses on external influences in in combination with the characteristics of students. The works of Moogan and colleagues have explored the influences and behaviour of students through various stages of the process (Moogan & Baron 2003; Moogan et al. 1999). Vrontis et al. (2007) provide a holistic framework illustrating all factors such as student and personal characteristics, influencers, high school and college characteristics, environments and college actions. These models provide an integrated view into the decision-making process of potential students.
Applying these frameworks as a foundation for the present research, we focus on analysing the choice factors and information sources of students. As a marketing perspective is increasingly adopted in the higher education sector (Dao & Thorpe 2015; Hemsley-Brown & Oplatka 2006), choice factors and information sources are the ingredients which university marketers need to understand to develop marketing strategies for student recruitment, especially marketing communications. The importance of choice factors and the usage of information sources vary across student segments and highlight the need for segmentation analysis in relation to choice factors.

7.3 Reviewing Choice Factors and Information Sources When Selecting University

7.3.1 Choice factors

Choice factors can be defined as the criteria prospective students use for evaluating the available options (Obermeit 2012). When buying a product or service, the consumers would appraise the product attributes, such as quality, price, feature, or style. When considering a university, prospective students may take into account the ranking of university, tuition fee, or distance from home. Such choice factors are mostly considered by prospective students in the stages of information search and evaluation of alternatives. During these stages, prospective students seek information regarding these factors to reduce the uncertainty and risks associated with the decision (Veloutsou et al. 2004). In this research area, there are three variables frequently mentioned: course, location and reputation (Moogan et al. 2001; Moogan et al. 1999). As the present study was conducted from the marketing perspective, the factors in this paper are related to the decision on which university to apply, not the decision on why to pursue higher education.

The lists of choice factors are diversified across studies. Soutar and Turner (2002) concluded that the top four determinants of preferences for university in Western Australia were ‘course suitability’, ‘academic reputation’, ‘job prospects’, and ‘teaching quality’. Simões and Soares (2010) analysed the factors of ‘geographic proximately’, ‘academic reputation - university’, and ‘academic reputation - degree’, and noted the
extra factors of ‘expected employability’ and ‘programme availability’. Veloutsou et al. (2004) surveyed the requirement and importance of information on 36 choice factors, and the top information required was related to ‘content of specific courses’, ‘university’s reputation’ and department’s reputation’. The exploratory study by Briggs (2006) in the Scotland context revealed the top ten factors, in which ‘academic reputation’, ‘distance from home’ and ‘location’ were the top three factors. ‘Facilities and service’, ‘programme’ and ‘price’ were most important in the analysis of Dao and Thorpe (2015). This diversity shows that the choice factor analysis findings are dependent on the research context.

From a comprehensive review of prior research in this area, the present study adapts Hemsley-Brown and Oplatka (2015)’s framework of the factors of university choice. As the present study includes a segmentation analysis which explores the choice factors across demographic segments, the profile of students is not included in the list of choice factors, so that the categories of demographics and student academic in the review by Hemsley-Brown and Oplatka (2015) were removed. This exclusion is consistent with most studies in this field (e.g. Bonnema & Van der Waldt 2008; Briggs 2006; Briggs & Wilson 2007; Imenda et al. 2004; Mazzarol & Soutar 2002) which do not include the demographics or student profile in the analyses. The information sources category in the framework by Hemsley-Brown and Oplatka (2015) is used for the information sources analysis of this study.

7.3.2 Information sources and WOM

To develop effective strategies for student recruitment, universities need to understand the information sources they use during the decision-making process (Veloutsou et al. 2004). Alongside internal sources (memory), consumers refer to external information sources for information acquisition (Murray 1991). As higher education choice is a high-risk and complex decision over an extended period (Walsh et al. 2015), prospective students seek information from a wide range of information sources during the consideration process (Bonnema & Van der Waldt 2008). In this field, information sources and choice factors have been usually investigated together in support to
understanding the information search of prospective students (e.g. Briggs & Wilson 2007; Dao & Thorpe 2015).

There are numerous source types which have been investigated in previous research. The lists and categories of information sources are based on the research context. They can be classified into: impersonal and personal (Patti & Chen 2009); or direct, media, and social (Bonnema & Van der Waldt 2008). The review by Hemsley-Brown and Oplatka (2015) also added parental and friend’s influence as two main information sources.

Moreover, among the sources, WOM is the focus in the present study, as it is one of the most effective promotional tools for international education market (Hobsons 2017; Mazzarol & Soutar 2002). The greater perceived risk, the more relying on personal information (WOM) (Murray 1991). The work of Briggs and Wilson (2007) on Scottish undergraduate choice highlighted the information derived from WOM sources and called for future research on WOM processes in higher education. Nowadays, with the emergence of digital communication channels, social media and internet (eWOM) have been very important sources of information used by students (Obermeit 2012).

As this study explores the differences in choice factors and information sources consider by different student segments, the following review delineates a list of factors and sources to be included in this investigation. From this list of choice factors and information sources investigated by prior research, a questionnaire survey was developed. The details of research design are presented in the following section.

### 7.4 Method

As there is lack of research which investigates the issue from a country of origin, Vietnam was selected as the context for this study. Students from Asian countries are the largest group of international students globally and the dominant group in English-speaking international education hubs (OECD 2017). Recently, Vietnam has entered the top ten source countries of international education mobility, with more than 53,000
students studying abroad in 2013 (Choudaha 2017), making Vietnam an appropriate context, as a developing economy and an emerging educational market, for this study.

With a population of over 90 million and with almost two-thirds of the populace under the age of 30, the current higher education system in Vietnam does not have enough capacity to serve the demand (Tran et al. 2016). This situation has resulted in a tough national university entrance examination, overcrowded classes, and a high student-lecturer ratio (Tran et al. 2016). With the middle-class population in Vietnam growing, overseas education is an option for many students. From the side of the Vietnam higher education sector, the Ministry of Education and Training has also introduced a number of policies for educational development, such as encouraging investment in new public and private universities, new foreign collaborative programs, and encouraging internationalisation in higher education (Dao & Thorpe 2015).

The segmentation analyses in this study employed two surveys in Vietnam and Australia. Different from previous research in which surveys were conducted with first-year university students (e.g. Briggs 2006; Maringe & Carter 2007; Simões & Soares 2010), the target sample of this study was final-year high school students who were considering applying to universities. This survey sample allows for the examination of university choice factors as the consumer is experiencing the decision-making process to select a university, rather than relying on the recall of first-year students, allowing for more accurate and reliable data. The survey instrument was translated to Vietnamese by a back-translation approach, and then five Vietnamese academics were invited to check the translation, similarity and readability between the two language versions. Five high school students in Vietnam and five students in Australia were involved in the pilot test to check the readability and the ease of completion.

A total number of 579 completed responses was included in the data analyses. The main respondents were Vietnamese students. The survey was conducted in Ho Chi Minh City, the largest city and a dynamic economic hub in Vietnam. With the support of and reference from the Department of Education and Training, questionnaires were distributed at three public high schools in Ho Chi Minh City. A total of 536 questionnaire responses were collected after one week’s time, and 509 responses were
used for the data analyses. For the sample of Australian students, invitations to participate in the survey were handed out at open-day events in Melbourne, Australia. A total of 79 questionnaire responses were collected, and 70 responses were finally used for the data analyses.

Although questionnaires were distributed to final-year high school students in Vietnam and students attending open days of Australian universities, screening questions were used to check that the respondents were considering higher education after graduation to confirm the suitability of participation in the survey. The sample contained 362 female (62.8%) and 214 male (37.2%) respondents, and 325 (56.4%) respondents had at least one sibling who were currently attending university or had completed a university degree. Respondents were also asked to select whether they wanted to pursue higher education in their home country or at an overseas institution. From this, three segments were identified in the Vietnamese sample: 249 students would only apply to local Vietnamese universities (DOM), 86 students would only apply to study abroad (INT), and 174 students planned to apply to both domestic and international universities (BOTH). From the Australian sample, all students surveyed planned to apply only to domestic/Australian universities (AUS).

From the framework by Hemsley-Brown and Oplatka (2015), we employed the list of 31 choice factors across five categories (outcomes and benefits, characteristics of institutions, quality, geographical, and price sensitivity). To select the factors relevant to the research context, five Vietnamese academics who had experience in the higher education sector were invited to review the initial list of factors. The review removed the factors that are duplicated or irrelevant to the Vietnamese context. A final list of 21 choice factors was selected for the survey. There are 9 types of information sources selected for inclusion in this study, according to the context of Vietnamese higher education.

Respondents were asked to evaluate the importance of the choice factors and information sources in relation to the decision-making process to select a university. For the 21 choice factors identified from the literature review, respondents were asked, ‘For each of the following factors, please rate how important each factor is to your decision on which
university to attend’, to evaluate the importance of each factor on a scale from 1 to 4 (with 1 = “not important at all” and 4 = “very important”). For the nine information sources assessed in this study, respondents were asked to evaluate, ‘How important are each of the following sources of information to you when considering your choice of university?’, on a scale from 1 to 7 (with 1 = “not important at all” and 7 = “extremely important”). To explore which factors were expressed in WOM communication, the respondents were asked to select the choice factors discussed in their WOM conversations. SPSS software was utilised to analyse the mean scores and conduct factor analysis. The results of analyses are presented in the following sections.

7.5 Results and Discussions

7.5.1 Choice factors and segments

Table 7.1 shows the mean scores and the ranks of choice factors evaluated by each segment. The order of factors in the table is based on the total mean scores of the whole sample. The data reveals three key findings. First, the top two choice factors, ‘job prospects after graduation’ and ‘quality of teaching’, are consistent among Vietnamese segments. For Australian students, ‘quality of teaching’ is the most important choice factor, followed by ‘expertise of teaching staff’ and ‘job prospects after graduation’. ‘Actual course content’ and the ‘university’s connections with industry’ are also important factors for all segments (ranked 3-7). This is in line with prior studies highlighting the importance of such factors (e.g. Briggs 2006; Mazzarol & Soutar 2002; Soutar & Turner 2002; Veloutsou et al. 2004).

Second, choice factors in relation to reputation, cost and entrance requirement are evaluated differently across segments. Conflicting with previous research (e.g. Briggs & Wilson 2007; Veloutsou et al. 2004), ‘degree reputation’, ‘university reputation’ and ‘public image’ are not ranked highly in our sample. These factors are still important to Australian students (ranked 6-8), but less important to three segments of Vietnamese students. With cost-related factors, Vietnamese students, especially those intending to study abroad, care about ‘tuition fees and stipend’ (ranked 3), while this factor is only ranked 17 by Australian group. The groups who intend to study abroad also seek
scholarship opportunities (ranked 6), while domestic students in both countries do not consider this information (ranked 16). This finding illustrates how the cost to study abroad is a significant issue for many international students. This result contradicts the findings of Walsh et al. (2015) who found that course and reputation is important for international students studying in the United Kingdom, while fees were relatively unimportant. Moreover, the segments reveal the differing levels of importance of ‘entrance requirement’ when selecting which universities to apply to. This factor was especially important for students applying to study in Vietnam (ranked 5), which reflects the barrier of national university entrance examinations, whereas students who intend to study abroad (ranked 8-9) and Australian students (ranked 13) showed less concern for this factor.

Third, ‘location’, ‘ranking’, ‘immigration opportunities’ and ‘type of university’ are among the least important factors for all segments in our study. It is understandable that ‘immigration’ was a choice factor most relevant to students seeking to study abroad (ranked 9-11), and it has been identified as an important pull factor in prior research (e.g. Min & Falvey 2017). Contrasting with the findings by Briggs (2006) and Simões and Soares (2010), ‘location’ was not ranked highly by any segment in our sample. Finally, although there is much effort to promote university rankings in the higher education sector, ‘university ranking’ was not an important factor for students in all four segments. ‘Ranking’ was least important for respondents applying to study domestically in Vietnam (ranked 20), as local universities are not globally recognised, and was also not a highly considered choice factor for the Australian segment (ranked 15) or for prospective international students (ranked 19).

Table 7.1: The importance of choice factors across segments

<table>
<thead>
<tr>
<th>Choice factors</th>
<th>DOM (n = 249)</th>
<th>INT (n = 86)</th>
<th>BOTH (n = 174)</th>
<th>AUS (n = 70)</th>
<th>Total (n = 579)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Rank</td>
<td>Mean Rank</td>
<td>Mean Rank</td>
<td>Mean Rank</td>
<td>Mean Rank</td>
</tr>
<tr>
<td>Job prospects after graduation</td>
<td>3.74 1</td>
<td>3.70 1</td>
<td>3.74 1</td>
<td>3.66 3</td>
<td>3.72</td>
</tr>
<tr>
<td>Category</td>
<td>DOM</td>
<td>INT</td>
<td>BOTH</td>
<td>AUS</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>------</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Quality of teaching</td>
<td>3.61</td>
<td>2</td>
<td>3.70</td>
<td>1</td>
<td>3.67</td>
</tr>
<tr>
<td>Expertise of teaching staff</td>
<td>3.45</td>
<td>4</td>
<td>3.55</td>
<td>4</td>
<td>3.48</td>
</tr>
<tr>
<td>Actual course content</td>
<td>3.41</td>
<td>6</td>
<td>3.53</td>
<td>5</td>
<td>3.52</td>
</tr>
<tr>
<td>University's connections with industry</td>
<td>3.47</td>
<td>3</td>
<td>3.45</td>
<td>7</td>
<td>3.49</td>
</tr>
<tr>
<td>Entrance requirements</td>
<td>3.43</td>
<td>5</td>
<td>3.40</td>
<td>8</td>
<td>3.25</td>
</tr>
<tr>
<td>Tuition fees and stipend</td>
<td>3.31</td>
<td>7</td>
<td>3.62</td>
<td>3</td>
<td>3.43</td>
</tr>
<tr>
<td>Degree reputation</td>
<td>3.29</td>
<td>8</td>
<td>3.29</td>
<td>10</td>
<td>3.32</td>
</tr>
<tr>
<td>Availability and broad range of courses</td>
<td>3.18</td>
<td>9</td>
<td>3.27</td>
<td>11</td>
<td>3.18</td>
</tr>
<tr>
<td>Opportunities for internships during study</td>
<td>3.11</td>
<td>10</td>
<td>3.14</td>
<td>14</td>
<td>3.25</td>
</tr>
<tr>
<td>Scholarship opportunities</td>
<td>2.95</td>
<td>16</td>
<td>3.49</td>
<td>6</td>
<td>3.44</td>
</tr>
<tr>
<td>University reputation</td>
<td>3.01</td>
<td>14</td>
<td>3.19</td>
<td>13</td>
<td>3.18</td>
</tr>
<tr>
<td>Student life at the university</td>
<td>3.03</td>
<td>12</td>
<td>3.24</td>
<td>12</td>
<td>3.14</td>
</tr>
<tr>
<td>Facilities at the university</td>
<td>3.03</td>
<td>12</td>
<td>3.07</td>
<td>17</td>
<td>3.09</td>
</tr>
<tr>
<td>Difficulty of course</td>
<td>3.09</td>
<td>11</td>
<td>3.10</td>
<td>16</td>
<td>3.08</td>
</tr>
<tr>
<td>Location</td>
<td>2.92</td>
<td>17</td>
<td>3.13</td>
<td>15</td>
<td>3.01</td>
</tr>
<tr>
<td>Application/Admission process</td>
<td>3.00</td>
<td>15</td>
<td>3.07</td>
<td>17</td>
<td>2.95</td>
</tr>
<tr>
<td>University ranking</td>
<td>2.73</td>
<td>20</td>
<td>2.98</td>
<td>19</td>
<td>2.93</td>
</tr>
<tr>
<td>University public image</td>
<td>2.79</td>
<td>19</td>
<td>2.78</td>
<td>20</td>
<td>2.90</td>
</tr>
<tr>
<td>Type of university (private/public, old/new)</td>
<td>2.90</td>
<td>18</td>
<td>2.74</td>
<td>21</td>
<td>2.82</td>
</tr>
<tr>
<td>Immigration opportunities</td>
<td>2.51</td>
<td>21</td>
<td>3.34</td>
<td>9</td>
<td>3.18</td>
</tr>
</tbody>
</table>

Note: DOM = group of Vietnamese students intend to study in Vietnam, INT = group of Vietnamese students intend to study abroad, BOTH = group of Vietnamese students intend to study in Vietnam or abroad but not yet decided, AUS = group of Australian students intend to study in Australia.
7.5.2 Information sources and segments

The preference for information from particular sources is reported in Table 7.2. Parents are clearly the most influential information source for Vietnamese respondents (ranked 1 across all segments), while Australian students are less dependent on their parents (ranked 5). This may reflect the impact of Confucian tradition in Vietnamese culture and families, where parents have power over the future of their children. For the segment of Australian students, ‘open days’ are the most influential information source (ranked 1), most likely as they are able to physically visit and gather information directly on the university campus. Although open-day events are not popular for students to attend in Vietnam, prospective students also agree that the opportunity to visit the campus is an influential information source (ranked 2-3). ‘University websites’ ranked highly for respondents who wished to study abroad and Australian respondents (ranked 2), and were also relatively important for Vietnamese respondents intending to study domestically (ranked 4). The second most important information source for the Vietnamese segment aiming to study domestically was ‘teachers and school advisors’.

The findings also reveal differences in the usage of marketing-controlled and WOM sources among the segments. For respondents intending to study in Vietnam, WOM sources appear to be more important, as ‘teachers and school advisors’ (ranked 2) and ‘siblings and relatives’ (ranked 5) are ranked more highly than for other segments. Alongside ‘university websites’ (ranked 2), Australian respondents prefer seeking information from marketing materials, with ‘brochures and advertising’ ranked third, while this information source was less important for the Vietnamese segments (ranked 9 and 6). Moreover, it is noteworthy that sources related to social media are only important for respondents who intend to study abroad (ranked 4). This finding is relevant to university marketers who may be investing in online platforms as a significant tool of relationship marketing. However, our results indicate that, during the decision-making process, prospective students are not very likely to rely on social media as an information source informing their decision-making process.
Table 7.2: The importance of information sources across segments

<table>
<thead>
<tr>
<th>Information sources</th>
<th>DOM (n = 249)</th>
<th>INT (n = 86)</th>
<th>BOTH (n = 174)</th>
<th>AUS (n = 70)</th>
<th>Total (n = 579)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Rank</td>
<td>Mean</td>
<td>Rank</td>
<td>Mean</td>
</tr>
<tr>
<td>Parent</td>
<td>5.09</td>
<td>1</td>
<td>5.29</td>
<td>1</td>
<td>5.07</td>
</tr>
<tr>
<td>Open days or visits</td>
<td>4.10</td>
<td>3</td>
<td>4.59</td>
<td>3</td>
<td>4.75</td>
</tr>
<tr>
<td>University websites</td>
<td>4.06</td>
<td>4</td>
<td>5.08</td>
<td>2</td>
<td>4.68</td>
</tr>
<tr>
<td>Teachers and school advisors</td>
<td>4.14</td>
<td>2</td>
<td>4.10</td>
<td>5</td>
<td>4.18</td>
</tr>
<tr>
<td>Promotional visits to high schools</td>
<td>3.51</td>
<td>6</td>
<td>4.01</td>
<td>7</td>
<td>4.04</td>
</tr>
<tr>
<td>Siblings or relatives</td>
<td>3.84</td>
<td>5</td>
<td>3.92</td>
<td>8</td>
<td>3.69</td>
</tr>
<tr>
<td>Brochures and advertising</td>
<td>3.29</td>
<td>9</td>
<td>4.07</td>
<td>6</td>
<td>3.76</td>
</tr>
<tr>
<td>Social media, reviews, discussions, comments</td>
<td>3.43</td>
<td>7</td>
<td>4.12</td>
<td>4</td>
<td>3.68</td>
</tr>
<tr>
<td>Friends</td>
<td>3.31</td>
<td>8</td>
<td>3.74</td>
<td>9</td>
<td>3.53</td>
</tr>
</tbody>
</table>

Note: DOM = group of Vietnamese students intend to study in Vietnam, INT = group of Vietnamese students intend to study abroad, BOTH = group of Vietnamese students intend to study in Vietnam or abroad but not yet decided, AUS = group of Australian students intend to study in Australia

7.5.3 Information source categorisation

It is important for marketers to understand the groups of information sources that prospective students rely on during their decision-making process. A factor analysis of the information sources was conducted to categorise the types of information sources considered by prospective students in our sample. All sources loaded into two components. The categorisation clearly differentiates the marketing-controlled sources and WOM sources, with 8 out of 9 items loaded highly in one of these two components (coefficients are greater than 0.6). The information source of ‘social media, reviews, discussions, comments’ is the exception which loaded in both these two components.
Social media is basically classified as an electronic WOM source (Mangold & Smith 2012), as prospective students can see the online reviews. However, as universities are increasingly using social media as a promotion tool for recruitment (Bélanger et al. 2014; Rutter et al. 2016), social media and online reviews are logically categorised as a marketing-controlled information source.

**Table 7.3: Types of information sources**

<table>
<thead>
<tr>
<th>Component</th>
<th>Marketing controlled</th>
<th>WOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td></td>
<td>.671</td>
</tr>
<tr>
<td>Siblings or relatives</td>
<td></td>
<td>.790</td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td>.740</td>
</tr>
<tr>
<td>Teachers and school advisors</td>
<td></td>
<td>.679</td>
</tr>
<tr>
<td>Social media, reviews, discussions, comments</td>
<td>.506</td>
<td>.383</td>
</tr>
<tr>
<td>University websites</td>
<td>.769</td>
<td></td>
</tr>
<tr>
<td>Brochures and advertising</td>
<td>.860</td>
<td></td>
</tr>
<tr>
<td>Promotional visits to high schools by universities</td>
<td>.847</td>
<td></td>
</tr>
<tr>
<td>Open days or visits</td>
<td>.789</td>
<td></td>
</tr>
<tr>
<td>% of variance</td>
<td><strong>37.5</strong></td>
<td><strong>21.6</strong></td>
</tr>
</tbody>
</table>

*Note: Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization.*

7.5.4 Choice factors delivered in WOM

While marketing-controlled sources are managed by marketers and are mostly one-way information, other desired information can be sought via WOM sources. Such WOM sources are also important as they include parents, career advisors and closed relationships. To explore how prospective students utilise the range of information sources available to them to seek information regarding choice factors, an analysis of
how often these choice factors are mentioned via WOM information sources was conducted. This is an extension of the analysis on choice factors across segments and can provide further understanding on how prospective students consider such choice factors. Table 7.4 reports the frequency of which of each choice factor was mentioned as coming from WOM sources, across the four segments of prospective students in this study.

First, for the segment of Vietnamese respondents intending to study domestically, ‘job prospects after graduation’ (ranked 1), ‘entrance requirements’ (ranked 2) and ‘quality of teaching’ (ranked 3) are most often discussed via WOM. This finding is consistent with level of importance of the choice factors, which also ranks these three choice factors highly. ‘Location’ (ranked 19), ‘university ranking’ (ranked 20) and ‘immigration opportunities’ (ranked 21) are rarely discussed in WOM. This is unsurprising, as students aiming to study domestically are not considering immigration and there is also no university ranking system in Vietnam for respondents to consider. For the choice factors of ‘university reputation’, ‘degree reputation’, ‘course content’ and ‘facilities’, there is little variation across segments as to how often they are discussed with WOM sources.

Second, for the segment of Vietnamese respondents applying to study abroad, they are especially concerned with information regarding ‘tuition fee’ (ranked 1), ‘scholarship opportunities’ (ranked 2) and the ‘application/admission process’ (ranked 8). Again, we see that, with prospective international students, cost is very important and they are considering information on the process of applying to an overseas university, including visa and travel issues. For this information they rely on discussions with close sources and WOM.

Third, for the segment of Vietnamese respondents who are still considering both domestic and international study options, the findings reveal that ‘scholarship opportunities’ (ranked 1) is most commonly discussed with WOM information sources. This finding reveals that, for this segment, scholarships may be a key factor taken into consideration when deciding whether to study domestically or abroad.
Fourth, different from Vietnamese segments, Australian students sought information about ‘location’ (ranked 1), ‘student life’ (ranked 7) and ‘opportunities for internships’ (ranked 8) with WOM sources. This result shows that prospective students in Australia are more concerned with their experience during their time at university rather than financial issues (‘tuition fee’ was ranked 17). The importance of location for the Australian segment is likely due to the fact that universities in Australia are multi-disciplinary, giving prospective students many options of universities to attend for the degree they wish to pursue. This requires students to consider the distance they need to, and are willing to, travel to attend various universities, as well as many students who are preparing to move from regional areas to capital cities for further education.

Table 7.4: The frequency of choice factors information discussed in WOM across each group

<table>
<thead>
<tr>
<th>Group</th>
<th>DOM (n = 249)</th>
<th>INT (n = 86)</th>
<th>BOTH (n = 174)</th>
<th>AUS (n = 70)</th>
<th>Total (n = 579)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Rank</td>
<td>%</td>
<td>Rank</td>
<td>%</td>
</tr>
<tr>
<td>Job prospects after graduation</td>
<td>79.9</td>
<td>1</td>
<td>64.0</td>
<td>4</td>
<td>70.1</td>
</tr>
<tr>
<td>University Reputation</td>
<td>59.0</td>
<td>4</td>
<td>64.0</td>
<td>4</td>
<td>69.0</td>
</tr>
<tr>
<td>Entrance requirements</td>
<td>68.3</td>
<td>2</td>
<td>59.3</td>
<td>6</td>
<td>55.7</td>
</tr>
<tr>
<td>Quality of teaching</td>
<td>59.4</td>
<td>3</td>
<td>66.3</td>
<td>3</td>
<td>63.2</td>
</tr>
<tr>
<td>Tuition fees and stipend</td>
<td>59.0</td>
<td>4</td>
<td>70.9</td>
<td>1</td>
<td>65.5</td>
</tr>
<tr>
<td>Degree reputation</td>
<td>50.6</td>
<td>7</td>
<td>57.0</td>
<td>7</td>
<td>53.4</td>
</tr>
<tr>
<td>Scholarship opportunities</td>
<td>39.0</td>
<td>13</td>
<td>69.8</td>
<td>2</td>
<td>70.1</td>
</tr>
<tr>
<td>Actual course content</td>
<td>49.4</td>
<td>8</td>
<td>48.8</td>
<td>10</td>
<td>53.4</td>
</tr>
<tr>
<td>Availability and broad range of courses</td>
<td>52.2</td>
<td>6</td>
<td>53.5</td>
<td>9</td>
<td>49.4</td>
</tr>
<tr>
<td>University's connections with industry</td>
<td>47.4</td>
<td>9</td>
<td>39.5</td>
<td>18</td>
<td>48.3</td>
</tr>
</tbody>
</table>
7.6 Discussions and Conclusions

This study presents an exploratory analysis of the choice factors and information sources utilised by four segments of prospective higher education students, using a sample of Vietnamese and Australian high school students. The findings of this study illustrate the differences among the segments, particularly between the segment of Vietnamese respondents intending to study domestically and the segment of respondents applying to study abroad, as well as between Vietnamese and Australian respondents. This study extends existing research on international education and international students’ choice factors by investigating what different segments of prospective international students consider when appraising potential universities during their final year of high school studies in their home country. The findings
provide insights for university managers in understanding the choice factors and information sources utilised across various segments, and highlight the unique information needs of the target segments of prospective students. Although the sample for this study was collected mainly in Vietnam, the findings of this study are relevant and applicable to other Asian markets where there are similarities in terms of the cultural values about education. Moreover, Vietnam is one of the top ten countries of origin of globally mobile students (Choudaha 2017).

Regarding the choice factors considered by prospective students, the study demonstrates that all segments are most concerned about future job prospects, teaching quality, staff expertise, and course content. At the other end, location and university ranking are relatively less important when choosing universities to apply to, despite location being reported as an important attribute in prior studies (Brown et al. 2009) and ranking being a key element in current marketing strategies of many universities. While our results show that university reputation was more important to Australian students than Vietnamese students, this may be due to the barrier of the national entrance examination in Vietnam which drives entrance requirement to be a more important choice factor than reputation. The higher education structure in Vietnam, in which universities are single-disciplinary institutions, also devalues the choice factor of reputation as, when Vietnamese students select a course or field of study, they have very few universities to then select among. Vietnamese students also pay attention to cost-related factors, especially the segment of students who intend to study abroad. Tuition fee and stipend is clearly of high importance to international students, with scholarship opportunities and tuition fee also the most frequently discussed choice factors in WOM by the segments of students intending to study abroad.

With regard to information sources, Vietnamese students prefer WOM rather than commercial sources. Moreover, WOM is inherent in a collectivist culture like Vietnam and hence WOM information is maybe considered more important than other communication methods (Luo et al. 2014). Brochures and advertising and promotional visits to high schools, which is a common marketing strategy of Vietnamese universities, are not highly valued by Vietnamese students. Parent(s) are the most important information source for Vietnamese students when considering universities
to apply to, reflecting the collectivist culture and Confucian traditions in Vietnam (Tran et al. 2016). University-driven marketing strategies including open days and university websites were the most important information sources for the Australian segments of prospective students. Although open days and websites are not the key promotional tools of Vietnamese universities, Vietnamese students are increasingly considering these information sources, and universities would be advised to adapt their strategies to incorporate more university-driven events and communication, such as open day and up-to-date websites, in markets with globally mobile student segments.

7.7 Limitations and Future Research

Although the study was carefully designed and conducted, it also has some limitations. Participation in the survey was voluntary, and the classification of Vietnamese student segments was based on the behavioural intentions of the sample, resulting in unequal segments sizes. Balanced samples should be expected in future research. Moreover, the Australian sample was recruited at open days, so that the perception towards effective information sources might be skewed and reflect the view of those favourable to such information sources. The sample in Vietnam was collected at high schools and allows for more diversity in the consideration of prospective students to be captured. Further, the research presented in this paper is from the single context of higher education and thus the findings may be limited to this context.

Future research should focus on investigating the choice factors and information sources within each stage of decision-making, to examine how the influence of factors and sources evolve across the process. The collection of factors should be also extended to country-level factors, not only university-level (Kamal Basha et al. 2016). WOM is an important source for prospective students, and the present findings provide the preferences of Vietnamese students within the WOM and personal sources. Further research should be conducted to understand whether this difference is due to the differences between Asian and Western cultures, or that the insufficiency of marketing and promotional tools by universities in Vietnam impact on segment behaviour. Moreover, due to the inconsistencies with prior research in this area, further
examination is required of the importance of location and university ranking systems for prospective students.
Chapter 8: Paper 5

Information sought by prospective students from social media eWOM during the university choice process

Abstract

Universities are increasingly utilising social media for student recruitment, the most highly used channel for prospective students. However, research on information gathering and eWOM seeking behaviours on social media is generally absent. This paper explores the information sought by prospective students on social media, by analysing data from actual conversations on Quora, a popular social media question-and-answer site. Content analysis of 904 questions was conducted to examine the information regarding the factors students seek when selecting a university. Findings report information requirements on five major dimensions, namely: reputation, career prospect, course and teaching, administration, and student life. This paper contributes to higher education literature by revealing the university choice factors students most commonly seek on social media, utilising a unique data source derived from actual online questions. Through understanding the eWOM seeking behaviours of prospective students, universities can more accurately target their social media content.

Keywords: university choice, choice factors, information requirements, social media, eWOM
8.1 Introduction

In the landscape of globalisation, the higher education industry is increasingly competitive and facing more complex challenges, notably the competition in attracting student enrolments (Hemsley-Brown & Oplatka 2015; Marginson 2006). To overcome this challenge, educational marketers are increasingly utilising social media as a strategic communication tool to support student recruitment (Fagerstrøm & Ghinea 2013; Hayes et al. 2009; Rutter et al. 2016), considering the fact that social media is now a popular information channel for prospective students (Bélanger et al. 2014; Galan et al. 2015; Rowe 2014).

From the marketing perspective, consumers are increasingly seeking information from social media rather than traditional media channels (Mangold & Faulds 2009; Rutter et al. 2016). Moreover, social media is a rich source of WOM activities, one of the most powerful forces in the marketplace (Kimmel & Kitchen 2013) and in particular the services industry (Murray 1991). In the higher education context, WOM is considered as one of the effective information sources during the prospective students’ decision-making process (Moogan et al. 1999; Patti & Chen 2009). Thus, prospective students, as service consumers, prefer their information from other consumers accessed through online communities, as they perceive these sources to be similar to themselves and to have no commercial reward from sharing WOM messages (Galan et al. 2015). The trend of social media marketing and the popularity of this channel require marketers to understand types of information that prospective students seek from eWOM on social media when selecting a university.

This study explores the information which prospective students (prospects) seek from eWOM, by analysing the content of the questions they ask on social media. Guided by a review of the literature on the choice factors of prospects during the decision-making process, online questions were analysed to understand under which choice factors information is being sought on social media. Content analysis was chosen as the data analysis technique for its ability to overcome the difficulties in observing WOM conversations, in consideration of the unique data from actual online (eWOM) conversations utilised in this study (Godes & Mayzlin 2004). Regarding the observed
platform, social media is comprised of a wide range of online platforms such as discussion boards, social networking sites, video and photo sharing sites or question-and-answer sites, which feature different functions and activities (Mangold & Faulds 2009). A social media question-and-answer (sQ&A) site has been chosen for this content analysis because prospects might prefer particular targeted online communities for eWOM information from acquaintances who are not known personally, rather than WOM from family and friends (Morris et al. 2010).

The paper is structured as follows. Literature is reviewed to identify and summarise the university choice process, choice factors and the roles of eWOM on social media as a source of information. Next, from the choice factors summarised from literature as a background, a qualitative and quantitative analysis of 904 questions about Australian higher education from the Quora platform is presented to identify the information requirements of prospects.

8.2 Literature Review

This review presents the theoretical background regarding the higher education choice process and the importance of social media eWOM to satisfy choice factor information needs. This section is followed with a discussion of the decision-making process, a review of choice factors explored in previous research, and an explanation of the theoretical approach used in this study. The last section of this review presents the role of social media eWOM in seeking formation regarding these choice factors and why a sQ&A site was selected for this analysis.

8.2.1 The decision-making process

Higher education is a credence-based service, where prospects make a one-off decision and do not have opportunity to ‘test-drive’ their higher education courses before selection (Moogan et al. 1999, p. 213), and the selection of a university is a unique decision-making process in which prospects engage in various stages of a lengthy consideration process (Chapman 1986; Maringe 2006; Moogan et al. 1999; Stephenson et al. 2016; Vrontis et al. 2007).
After the problem recognition stage, where prospects decide whether they want to gain a higher education degree, they will search for related information and evaluate their potential choices during, respectively, the information search and evaluation of alternatives stages (Moogan & Baron 2003; Moogan et al. 1999). Prospects behave as rational consumers in the decision to pursue higher education and in the selection of university (Tavares & Cardoso 2013). They focus on a list of their own choice factors to support their decision making and judge potential universities (Blackburn 2011; Sojkin et al. 2012). They can seek information from various types of communication, e.g. advertising or promotional events, university websites, reports, friends or teachers (Simões & Soares 2010). The information that prospects seek might be dissimilar in the different communication source types (Bonnema & Van der Waldt 2008), and prospects may target different questions to different sources. For example, a prospect can find the information on tuition fees and scholarships on university websites, but employment prospects may be sought from social media or professional reports. However, we lack an understanding of how prospects seek information regarding these choice factors in particular communication channels.

Social media increasingly represent an important part of universities’ strategies (Fagerstrøm & Ghinea 2013; Rutter et al. 2016). Furthermore, information search and evaluation of alternatives are the two stages of the decision-making process in which social media are most useful for prospects (Galan et al. 2015). Although choice factor is a popular research interest which has been examined in many studies in this field, little is known about how choice factors are sought through social media channels. Researchers have presented choice factors and information sources within an investigation but not investigated the demand for information regarding the choice factors in each information source (e.g. Bonnema & Van der Waldt 2008; Simões & Soares 2010). Consequently, research investigating the information sought from social media is important for contemporary communication strategies of higher education institutions.

8.2.2 Choice factors when selecting university

Research on choice factors has attracted a large number of studies during the last two decades (see Hemsley-Brown & Oplatka 2015 for a complete review). However, it is
noteworthy that the coverage of the term choice factors might be considered differently depending on the scope of the discussion. The first perspective defines choice factors as the attributes of the service; in this case, they are the characteristics of an educational institution, for example, reputation, course availability, location (e.g. Bonnema & Van der Waldt 2008; Moogan & Baron 2003; Obermeit 2012; Veloutsou et al. 2004). The second perspective defines choice factors as not only the educational service attributes but the combination of all aspects regarding information sources, institution characteristics and student demographics (e.g. Dao & Thorpe 2015; Hemsley-Brown & Oplatka 2015; Maringe 2006; Simões & Soares 2010).

The focus of the present study is the prospects’ seeking behaviour on social media, so that we exclude information sources and student demographics as choice factors. Therefore, this paper follows the first perspective to identify choice factors as all attributes regarding universities and education experience, because these groups of factors are relatively subjective so that prospects seek their information from external sources.

However, the literature indicates a fair degree of fragmentation around choice factors, and the findings are far from homogenous (Hemsley-Brown & Oplatka 2015). An analysis for the present study of the extant research identifies five most common dimensions of choice factors (Table 8.1):

1. **Reputation**: The credibility of the university and a result of past actions or prior performance of university. The reputation of university can be separated into the quality of the university or of particular degrees. This dimension is also comprised of ranking systems and corporate image.

2. **Career Prospect**: Employability during and post-university. Part-time employment and internships, as well as the industry engagement are also included.

3. **Course and Teaching**: What students learn and how the course is delivered, including availability, range and content. This dimension also includes flexibility, such as bridging with other courses, and refers to teaching aspects, rated by the judgement of academic and practical components of the course. Academic
components include quality and reputation of academic staff. Practical components include teaching styles and the difficulty of successfully completing the course.

4. **Administration**: The entrance requirements and admission process of the university, including the institutions’ management profile.

5. **Student Life**: Non-academic factors regarding student experience. University resources include library facilities, classrooms, labs, campus services, security and accommodation provided by the university. Psychosocial life refers to social activities and cultural climate on campus and in the local area. The cost-related factors are also included in this category, which includes both the tuition fees and cost of living in the region.

**Table 8.1: Choice factors of prospects when selecting a university**

<table>
<thead>
<tr>
<th>Dimensions and Definition</th>
<th>Choice Factors and Explanation</th>
<th>Studies addressing this factor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reputation</strong></td>
<td><em>University Reputation:</em> The prestige of an educational institution</td>
<td>Baker and Brown (2007); Briggs (2006); Imenda et al. (2004); Mazzarol and Soutar (2002); Moogan et al. (2001); Soutar and Turner (2002); Simões and Soares (2010); Veloutsou et al. (2004); Walsh et al. (2015)</td>
</tr>
<tr>
<td></td>
<td><em>Degree Reputation:</em> The prestige of a particular course, degree or discipline</td>
<td>Imenda et al. (2004); Mazzarol and Soutar (2002); Simões and Soares (2010); Walsh et al. (2015)</td>
</tr>
<tr>
<td></td>
<td><em>Ranking:</em> The position in ranking systems</td>
<td>Cho et al. (2008)</td>
</tr>
<tr>
<td></td>
<td><em>Image:</em> The overall impression made on the minds of the public about a university including functional and emotional components</td>
<td>Imenda et al. (2004); Pampaloni (2010)</td>
</tr>
<tr>
<td><strong>Career Prospect</strong></td>
<td><em>Post-degree Employment Prospects:</em> The job opportunities</td>
<td>Bonnema and Van der Waldt (2008); Briggs (2006); Imenda et al. (2004); Mazzarol and Soutar (2002);</td>
</tr>
<tr>
<td>Dimensions and Definition</td>
<td>Choice Factors and Explanation</td>
<td>Studies addressing this factor</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>aspects during and post-university</td>
<td>and career prospects post-graduation</td>
<td>Soutar and Turner (2002); Veloutsou et al. (2004)</td>
</tr>
<tr>
<td><strong>Industrial Engagement:</strong> Business contacts and career guidance. The opportunities for internship and part-time jobs during study.</td>
<td></td>
<td>Veloutsou et al. (2004)</td>
</tr>
<tr>
<td><strong>Course and Teaching</strong></td>
<td><strong>Course Flexibility:</strong> The range of course availability and links to other courses</td>
<td>Chapman (1981); Imenda et al. (2004); Mazzarol and Soutar (2002); Price et al. (2003); Soutar and Turner (2002)</td>
</tr>
<tr>
<td>The factors related to core values of education: what students learn and how it is delivered</td>
<td><strong>Course Content:</strong> The judgement of academic and practical components of the course</td>
<td>Bonnema and Van der Waldt (2008); Moogan et al. (2001); Veloutsou et al. (2004)</td>
</tr>
<tr>
<td></td>
<td><strong>Teaching Quality:</strong> The style and quality of lectures and tutorials</td>
<td>Briggs (2006); Soutar and Turner (2002)</td>
</tr>
<tr>
<td></td>
<td><strong>Quality of Staff:</strong> The academic reputation of teaching staff</td>
<td>Briggs (2006); Imenda et al. (2004); Mazzarol and Soutar (2002)</td>
</tr>
<tr>
<td><strong>Administration</strong></td>
<td><strong>Types of University:</strong> The class or operating model of a university</td>
<td>Soutar and Turner (2002); Stephenson et al. (2016)</td>
</tr>
<tr>
<td>The factors related to management, administrative activities and requirements to obtain admission</td>
<td><strong>Administrative Efficiency:</strong> The satisfaction of students regarding administrative activities</td>
<td>Imenda et al. (2004)</td>
</tr>
<tr>
<td></td>
<td><strong>Entrance Standard/Requirements:</strong> The difficulty and requirements to get admission</td>
<td>Briggs (2006); Imenda et al. (2004); Mazzarol and Soutar (2002)</td>
</tr>
<tr>
<td><strong>Student Life</strong></td>
<td><strong>University Resources:</strong> The facilities and services</td>
<td>Dao and Thorpe (2015); Mazzarol and Soutar (2002); Price et al. (2003); Veloutsou et al. (2004)</td>
</tr>
<tr>
<td>The non-academic factors regarding student experience</td>
<td><strong>Psychosocial Life:</strong> Social activities and cultural climate on campus and in local area</td>
<td>Bonnema and Van der Waldt (2008); Briggs (2006); Cho et al. (2008); Mazzarol and Soutar (2002); Soutar</td>
</tr>
<tr>
<td>Dimensions and Definition</td>
<td>Choice Factors and Explanation</td>
<td>Studies addressing this factor</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and Turner (2002); Veloutsou et al. (2004)</td>
</tr>
<tr>
<td><strong>Location:</strong> The convenience of the university campus. The choice of country or city by international students</td>
<td></td>
<td>Briggs (2006); Mazzarol and Soutar (2002); Moogan et al. (2001); Soutar and Turner (2002); Simões and Soares (2010)</td>
</tr>
<tr>
<td><strong>Cost of Living:</strong> Monetary factors regarding tuition fee and living cost</td>
<td></td>
<td>Mazzarol and Soutar (2002); Veloutsou et al. (2004)</td>
</tr>
</tbody>
</table>

### 8.2.3 Electronic word-of-mouth on social media

Information search behaviour is the process whereby a consumer gathers information to support the decision-making process (Blackwell et al. 2006). The usage of information sources highly depends on the perceived risks and the level of involvement in the decision-making process (Voyer & Ranaweera 2015). For services with higher perceived risks and higher involvement level such as higher education, consumers rely more on WOM sources to reduce the uncertainty in making the decision (Murray 1991; Voyer & Ranaweera 2015). In the context of higher education, WOM information sources have been shown to be of significance (Greenacre et al. 2014; Wilkins & Huisman 2015). For example, friends, parents, teachers and career advisors are considered as WOM influencers of prospects (Moogan & Baron 2003; Simões & Soares 2010; Wilkins & Huisman 2015). With the emergence of Internet-based communication and social media platforms, prospects have an effective channel for information acquisition, and the role of eWOM information sources has gain importance (Rutter et al. 2016).

Prospective students are increasingly using and seeking information from social media platforms (Galan et al. 2015; Teng et al. 2015). Social media, or social networking sites, are online communities where people can create their own profiles and communicate with other people within virtual environments, which are designed to promote interactions among users, and thus within which eWOM messages are circulated. Social
media is an ideal channel for eWOM expansion in the higher education context, since the prospects are using this communication channel on a daily basis to stay connected and look for information (Teng et al. 2015). Prospects can use such online channels for seeking a variety of eWOM information such as reviews and comments from their online friends, acquaintances, or experts (Hayes et al. 2009; Hennig-Thurau et al. 2004).

Educational institutions have started to utilise this channel for their communication strategies (Hayes et al. 2009). eWOM would be more accessible than the traditional WOM because people do not need a face-to-face contact. While prospects mostly receive WOM from personal relationships such as parents and friends, eWOM on social media can be more extensive since prospects can communicate with each other from everywhere in the world. The eWOM-seeking activities of prospects from online friends, acquaintances and experts are the focus of this research. During the lengthy decision-making process, prospects might have talked to families, relatives and friends, so they could want to seek information from other people to check the information and to have a different viewpoint.

8.3 Method

Collecting actual online conversations is suggested to overcome the difficulties of WOM studies in observing private conversations (Godes & Mayzlin 2004). Of popular social media, we collected data from a sQ&A site to observe the eWOM seeking activities of prospects from online friends, acquaintances and experts, as our research focus. The more popular Facebook or Twitter services were not chosen since these channels are oriented to interacting with friends, rather than information seeking. Among other possible sQ&A sites, such as Yahoo Answers and Answers.com, Quora (www.quora.com), an sQ&A site, was chosen due to its extensive, modern interactive interface and well-organised sections on the higher education sector, which enabled both depth and breadth of relevant data for collection.

A content analysis of data collected from Quora was conducted to examine the actual questions of prospects on social media. Content analysis method reduces the interferences of researchers and provides a solid foundation for handling large amounts
of data (Krippendorff 2013). sQ&A sites are good sources of data since the information seeking behaviours of prospects are illustrated through their questions.

Social media usage by prospects is a global issue, and online information search is a non-country-specific behaviour. Therefore, the Quora topics regarding Australian higher education were chosen as the sample of the content analysis. Australia is the third most popular destination of international students; and 24% of Australian tertiary students are international students, which is the largest proportion out of all English-speaking countries (Min & Falvey 2017).

Each question on Quora is ‘tagged’ in multiple topics according to its content, so that the relevant questions can be found by locating the related topics. The data collection process started with searching all questions associated with Australian higher education from 2011 to 2016. All conversations from the Quora topics related to Australian higher education (including ‘Universities and Colleges in Australia’, ‘Education in Australia’, ‘Study in Australia’ and 40 other topics on Australian universities) were collected. Only publicly visible content was collected for the analysis process.

Data collection resulted in 904 questions collected for coding and analysis. An initial review eliminated 39 questions unrelated to university selection, with 865 questions remaining for the main round of analysis. To ensure the reliability and validity of the analysis, a coding frame was carefully designed, and two coders participated in the coding process. A codebook defining all factors of information requirements was reviewed, and 30 questions were pre-tested by investigators and two external coders. The pilot coding on 150 questions was performed by two coders, and results were discussed. After the coding rule was formulated, all questions were coded independently by two coders. For the quantitative analysis, the content of each question was judged, to assign the rating value of choice factor relevance. The rating scale is from 0 to 3 (0 – not related at all; 1 – loosely related to this factor but not central to the question; 2 – closely related; 3 – key aspect of the question). This value was used to calculate the rating sum for each factor. Each question was also reviewed and classified into: demographic group (non-international/international) and education level (undergraduate/postgraduate). Based on the content of questions and the coding
scheme discussed, two coders grouped each question into demographic groups and education level. The demographic groups of international, non-international, and unknown were identified based on information provided by the authors of the posting and included in the content.

### 8.4 Findings and Discussions

Data were analysed to explore the information regarding the choice factors that prospects seek from eWOM on social media. The findings reveal information which potential students require and actively look for on social media. There are three types of questions found, comprised of questions asking for a single factor, asking for multiple factors, and open questions. The first type is a small number of questions clearly asking for a single factor, e.g. ‘Is Deakin university well known for engineering?’.

These specific questions suggest that the eWOM seeking could be more advanced or that prospects are seeking to confirm previous information. The other two types of questions are more vague or broad. The second type is the main theme asking for multi-dimensional information, e.g. ‘What is the Master of Science Communication course like (course content, job prospects)?’; and questions of the third type are more ambiguous, e.g. ‘How is RMIT?’ or ‘How is it to study at Deakin University in Australia?’ These latter questions illustrate the desire for ‘open’ comments from the community rather than specific information, or may be a reflection of the initial stage of consideration and desire to collect more general thoughts from an online community. All choice factors summarised from the literature were represented in our data (Table 8.2).

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Factors</th>
<th>Example of actual question as asked on Quora</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reputation</td>
<td>University Reputation</td>
<td>‘What is the reputation of the University of Melbourne?’</td>
</tr>
<tr>
<td></td>
<td>Degree Reputation</td>
<td>‘What is the best university to study accounting and finance in Australia?’</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Factors</td>
<td>Example of actual question as asked on Quora</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ranking</td>
<td></td>
<td><em>Is the MBA at Macquarie Graduate Management School worth it, considering that only a year ago it was not in the FT top 100 list?</em></td>
</tr>
<tr>
<td>Image</td>
<td></td>
<td><em>What are some little known facts about Deakin University?</em></td>
</tr>
<tr>
<td>Career Prospect</td>
<td>Post-degree Employment Prospects</td>
<td><em>What are the chances for an international medical student graduating from University of Tasmania (UTAS) or University of New South Wales (UNSW) to be allowed to work as a medical doctor in Australia?</em></td>
</tr>
<tr>
<td></td>
<td>Industrial Engagement</td>
<td><em>Does RMIT University/Melbourne University provide internship (industrial placement) for international students in Master of Computer Science course?</em></td>
</tr>
<tr>
<td>Course and Teaching</td>
<td>Course Flexibility</td>
<td><em>Which universities offer power plant engineering at masters level in the US, UK, Canada, Australia or any European country?</em></td>
</tr>
<tr>
<td></td>
<td>Course Content</td>
<td><em>University of Melbourne: I have just got an offer to study Development Studies (MA) as an international student. Has anyone got experience with the course? Is it a practical one? Do you have any recommendations?</em></td>
</tr>
<tr>
<td></td>
<td>Course Difficulty</td>
<td><em>Which is the Australian university with the lowest passing rate?</em></td>
</tr>
<tr>
<td></td>
<td>Quality of Staff</td>
<td><em>Which university should I choose on the basis of future job prospects, networking, and quality of faculty: Australian National University for a master's in public policy or University of Melbourne for a master's in international relations?</em></td>
</tr>
<tr>
<td>Administration</td>
<td>Admission Process</td>
<td><em>I have gotten a master’s degree admission letter to study in Australia. It is going to start in March, but I haven’t accepted the offer letter. What is the due day for accepting the offer letter? Are there any ideas about studying in Australia?</em></td>
</tr>
<tr>
<td></td>
<td>Entrance Requirements</td>
<td><em>How do I gain admission in Australian universities for undergrad programmes? My 12th</em></td>
</tr>
<tr>
<td>Dimensions</td>
<td>Factors</td>
<td>Example of actual question as asked on Quora</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Student Life</td>
<td>University Resources</td>
<td><em>Board score is 93.8. What universities can I apply to?</em></td>
</tr>
<tr>
<td>Psychosocial Life</td>
<td></td>
<td><em>What's the nicest university library in Australia for a research trip (English literature)?</em></td>
</tr>
<tr>
<td>Location</td>
<td></td>
<td><em>How is college life in Australia different than America?</em></td>
</tr>
<tr>
<td>Cost of Living</td>
<td></td>
<td><em>Which is a better place to study, the UK or Australia? Why?</em></td>
</tr>
<tr>
<td>Scholarship</td>
<td></td>
<td><em>Education in Australia is very expensive. I will be working as a student up to 20 hours a week to pay for tuition, room, and board. Will I have enough money for personal expenses?</em></td>
</tr>
<tr>
<td>Immigration</td>
<td></td>
<td><em>Is there a 100% scholarship exam for studying in Australia?</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>I am an Indian. I wish to migrate to Australia. How about pursuing my higher studies in dental sciences and setting my career there?</em></td>
</tr>
</tbody>
</table>

### 8.4.1 Qualitative findings and discussion

#### 8.4.1.1 Reputation

The first dimension, reputation, has been a regular choice factor of students in previous research. However, there are few studies distinguishing university and degree reputation (e.g. Simões & Soares 2010; Veloutsou et al. 2004). While important papers have reported on institutional reputation, this analysis highlights types of degree reputation questions,

[Degree Reputation] *Which is the best university for computer science and engineering in Australia for an MS?*

There are limited questions which mention a university’s reputation directly. The majority of reputational questions infer reputation, at both degree and university level,
Such questions express the importance of degree reputation as an information preference, but it is possible that prospects have a previous understanding of the reputation of a particularly favourite university choice and so do not need to further this knowledge in their search behaviours. For the majority of prospects, the decisions on which major and their future degrees are made when they are in the problem recognition stage (Moogan & Baron 2003). Therefore, when they communicate in online communities regarding choice factors, they may refer to degree reputation in their minds rather than institutional reputation. Prospects also ask about ranking, though such questions are asked less often than other attributes regarding reputation,

[Ranking] ‘Is the MBA at Macquarie worth it, considering that only a year ago it was not in the FT top 100 list?’

This result is consistent with recent industry reports on the international education market that state university rankings are considered less important by prospective students (Hobsons 2017). This might be because the ranking is an apparent aspect that prospects can find easily via other channels and thus unnecessary to seek from eWOM. In addition, the question of ranking may be linked with financial costs in prospects’ mind; and, as such, this question is explored more indirectly in the financial dimension.

8.4.1.2 Career prospect

Second, factors associated with career prospect are understandably popular and provide a direct feedback loop from the experiences of alumni and employers to prospects. Therefore, prospects often asked their virtual communities about employability,

[Employment Prospects] ‘Which branch of engineering will be most preferred in Australia after 3-4 years?’

In light of this dimension, prospects not only considered post-degree employment prospects but also questioned the level of industrial engagement of the institutions. This industry linkage forms a core component of future career prospects; thus
prospects are looking at their time during the degree and potentially thinking about networking opportunities for their future. Opportunities include internships or part-time employment during their study,

[Industrial Engagement] ‘Which Asian/Australian university has the most connections? The kinds of connections which would help people get the most opportunities for internships, jobs, etc.’

8.4.1.3 Course and teaching

Third, questions on Quora are more course-related rather than on teaching-related factors. Prospects asked questions about course flexibility/availability and overall structure and cost,

[Course Flexibility] ‘Which universities offer power plant engineering at masters level in the US, UK, Canada, Australia or any European country?’

[Course Content] ‘What is the course structure and fees for CS in University of Melbourne?’

Degree of difficulty of courses was also a topic of the conversations, including pass rates,

[Course Difficulty] ‘Which is the Australian university with the lowest passing rate?’

While the quality of teaching is included in university marketing, no Quora conversations were related to this topic, possibly indicating a more pragmatic search focus by prospects.

8.4.1.4 Administration

In term of administration, this factor is popular in Quora topics, especially for prestigious universities which students are favouring as part of their decision-making process, but regarding which they are concerned in terms of their ability to gain admission,

[University Requirement] ‘For the Masters of Management degree course, what is the expected GMAT score for admission?’
Thus, this dimension does not just reflect the information requirement but also expresses the preferences of students toward particular universities. Moreover, many questions in this group are from international students (see the quantitative findings), who might not know the information or lack a benchmark to evaluate their resumes in line with Australian university admission requirements. Overall, questions about administration are related to factual knowledge (admission process or requirements), which students can check with the university, rather than ask about on social media. Thus, if universities apply social media marketing activities, this could be a potential starting point for refining social media corporate communications in line with actual usage by the target market.

8.4.1.5 Student life

Finally, regarding student life, topics of conversations predominantly included university resources, psychosocial life, location and cost of living. Teasing out the psychosocial life-related conversations in more detail highlighted four sub-categories, around accommodation, student activities, security and safety in capital cities, and relocation and settlement experiences. Questions in this group often combined multiple factors, for example, an opening question about university location coupled with a question about lifestyle or cost of living,

[Psychosocial Life] ‘I am going to Sydney, Australia for my master's. What things would I need and what essentials should I pack?’

Moreover, the data also reveal two additional factors, scholarship and immigration. Although there are not many mentions regarding these two aspects, they are noteworthy in the segment of international students (QSEnrolmentSolutions 2018), because many prospects from overseas are directly questioning this.

8.4.2 Quantitative findings and discussion

Quantitative analysis of the dataset was performed to identify how often a factor was being asked about on social media, to reveal how frequently this information is sought via eWOM. This was evaluated by two enumerations, the count of mentions and the
sum of ratings of questions regarding each choice factor. The sum of ratings was calculated by the total value assigned by the coders on every question. This measurement could highlight the factors that were the main and single concern in many questions but were not frequently mentioned in many others. While the count of mentions (or frequency) can record how often the prospects think about the factors when asking questions, the sum of rating can evaluate the importance of information by applying the weight scale to each question recorded.

Table 8.3 presents the ranks of each factor according to the frequency and sum of ratings. First, the top information preferences are degree reputation, course content and university reputation. These are ranked high on both the frequency and sum of rating. This illustrates that public perception about reputation is the most wanted information on social media. The second frequently-asked group comprises employment prospects, image, psychosocial life, course difficulty, entrance requirement and location. The employment prospects factor is ranked fourth in the sum of rating but ranked seventh in the frequency, indicating that prospects directly ask for employment prospect, but not with respect to other factors. By contrast, the course difficulty is usually asked in the same questions with other information (ranked fourth) which might be related to course content and flexibility, but is not being asked about directly. The third group includes factors of cost of living, admission process, course flexibility, and industrial engagement. Although these factors were sought less often, the qualitative analysis shows that this does not mean that they are unimportant.

The analysis reveals an overview of factors that prospects usually seek from online communities. The top seven, from degree reputation to course difficulty, are factors which are related to perceptual information, so that prospects are willing to hear from the public. With prospects using Internet on daily basis, they seek public opinions from eWOM on social media. The next five factors, from entrance requirements to course flexibility, are more associated with factual knowledge which students can find from other official sources. That they are seeking information regarding these factors on social media might be because they want to confirm the information or due to their social media using habit. An analysis of segments in the following section would
partially explain the information requirements on these factors. Unexpectedly, the ranking is not in the top list of information requirements on social media.

Table 8.3: Frequencies and sum of ratings of information sought regarding each choice factor

<table>
<thead>
<tr>
<th>Factors</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Percentage rank</th>
<th>Sum of ratings</th>
<th>Sum of ratings rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree Reputation (R)</td>
<td>346</td>
<td>40.0</td>
<td>3</td>
<td>834</td>
<td>1</td>
</tr>
<tr>
<td>Course Content (CT)</td>
<td>375</td>
<td>43.4</td>
<td>2</td>
<td>633</td>
<td>2</td>
</tr>
<tr>
<td>University Reputation (R)</td>
<td>379</td>
<td>43.8</td>
<td>1</td>
<td>517</td>
<td>3</td>
</tr>
<tr>
<td>Employment Prospects (CP)</td>
<td>144</td>
<td>16.6</td>
<td>7</td>
<td>386</td>
<td>4</td>
</tr>
<tr>
<td>Image (R)</td>
<td>275</td>
<td>31.8</td>
<td>5</td>
<td>360</td>
<td>5</td>
</tr>
<tr>
<td>Psychosocial Life (SL)</td>
<td>208</td>
<td>24.0</td>
<td>6</td>
<td>342</td>
<td>6</td>
</tr>
<tr>
<td>Course Difficulty (CT)</td>
<td>286</td>
<td>33.1</td>
<td>4</td>
<td>327</td>
<td>7</td>
</tr>
<tr>
<td>Entrance Requirements (A)</td>
<td>125</td>
<td>14.5</td>
<td>8</td>
<td>283</td>
<td>8</td>
</tr>
<tr>
<td>Location (SL)</td>
<td>104</td>
<td>12.0</td>
<td>9</td>
<td>214</td>
<td>9</td>
</tr>
<tr>
<td>Cost of Living (SL)</td>
<td>71</td>
<td>8.2</td>
<td>11</td>
<td>176</td>
<td>10</td>
</tr>
<tr>
<td>Admission Process (A)</td>
<td>86</td>
<td>9.9</td>
<td>10</td>
<td>169</td>
<td>11</td>
</tr>
<tr>
<td>Course Flexibility (CT)</td>
<td>66</td>
<td>7.6</td>
<td>12</td>
<td>118</td>
<td>12</td>
</tr>
<tr>
<td>Industrial Engagement (CP)</td>
<td>47</td>
<td>5.4</td>
<td>14</td>
<td>101</td>
<td>13</td>
</tr>
<tr>
<td>Quality of Staff (CT)</td>
<td>55</td>
<td>6.4</td>
<td>13</td>
<td>83</td>
<td>14</td>
</tr>
<tr>
<td>University Resources (SL)</td>
<td>32</td>
<td>3.7</td>
<td>15</td>
<td>70</td>
<td>15</td>
</tr>
</tbody>
</table>
Different segments may affect the information requirements of prospects. The university students are usually segmented to school leavers, mature and international students (Brown et al. 2009; Soutar & Turner 2002). Therefore, we compare two pairs of segment, two demographic groups and two educational-level groups. Of 865 questions analysed, there are 267 questions asked by international students, and 598 questions were asked by non-international students (domestic or unknown group). About the level of education groups, there are 531 questions from the undergraduate group and 334 questions asked by potential postgraduate students. The count of mentions or frequency was applied to learn the information preference of each segment (Table 8.4).

Table 8.4: Frequency of information sought regarding each choice factor of different segments

<table>
<thead>
<tr>
<th>Factors</th>
<th>Demographic Group</th>
<th>Educational Level Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-international</td>
<td>International</td>
</tr>
<tr>
<td>Degree Reputation (R)</td>
<td>Frequency</td>
<td>275</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>46.0</td>
</tr>
<tr>
<td>Course Content (CT)</td>
<td>Frequency</td>
<td>298</td>
</tr>
<tr>
<td>Factors</td>
<td>Demographic Group</td>
<td>Educational Level Group</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td>Non-international</td>
<td>International</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>University Reputation (R)</td>
<td>Frequency</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>51.0</td>
</tr>
<tr>
<td>Employment Prospects (CP)</td>
<td>Frequency</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>14.4</td>
</tr>
<tr>
<td>Image (R)</td>
<td>Frequency</td>
<td>216</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>36.1</td>
</tr>
<tr>
<td>Psychosocial Life (SL)</td>
<td>Frequency</td>
<td>128</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>21.4</td>
</tr>
<tr>
<td>Course Difficulty (CT)</td>
<td>Frequency</td>
<td>221</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>37.0</td>
</tr>
<tr>
<td>Entrance Requirements (A)</td>
<td>Frequency</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>11.2</td>
</tr>
<tr>
<td>Location (SL)</td>
<td>Frequency</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>8.9</td>
</tr>
<tr>
<td>Cost of Living (SL)</td>
<td>Frequency</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>5.5</td>
</tr>
<tr>
<td>Admission Process (A)</td>
<td>Frequency</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>7.9</td>
</tr>
<tr>
<td>Course Flexibility (CT)</td>
<td>Frequency</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>7.7</td>
</tr>
<tr>
<td>Industrial Engagement (CP)</td>
<td>Frequency</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>4.2</td>
</tr>
<tr>
<td>Quality of Staff (CT)</td>
<td>Frequency</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>7.5</td>
</tr>
<tr>
<td>University Resources (SL)</td>
<td>Frequency</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>4.8</td>
</tr>
<tr>
<td>Factors</td>
<td>Demographic Group</td>
<td>Educational Level Group</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td>Non-international</td>
<td>International</td>
</tr>
<tr>
<td>Ranking (R)</td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>3.5</td>
</tr>
<tr>
<td>Scholarship (SL)</td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>1.3</td>
</tr>
<tr>
<td>University Type (A)</td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>1.2</td>
</tr>
<tr>
<td>Immigration (SL)</td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>598</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: Numbers in bold indicate the greater percentage of questions regarding each factor within a segment.

R: Reputation, CP: Career prospect, CT: Course and Teaching, A: Administration, SL: Student Life

For the two demographic groups, non-international students tended to enquire with multi-dimensional questions, so that the frequencies were high in many factors. They concentrated more on the reputation and course factors, with the percentages of questions from these two categories being greater than 35%, e.g. university reputation, course content, degree reputation, course difficulty, and image. Moreover, they also asked about the quality of staff and university resources, which were not the information preference from international students. The prospective international students focused on entrance requirements, location, cost of living and admission process, with the percentages of questions on these factors being double those of the non-international segment. This may partially explain why factual knowledge was being asked on social media: this result might be from the segment of international students. With their lack of experience about the culture and education system in the target
destinations, they have no access to this type of information, or this is not factual knowledge for them.

For the educational-level segments, the findings show that postgraduate students asked more multi-dimensional questions. The percentages of questions from postgraduate students on most of the popular factors were higher. Comparing to the postgraduate segment, potential undergraduate students focused more only on the psychosocial life. This is understandable because most of the postgraduate students are mature and part-time students, are relatively less involved in out-of-class activities.

8.5 Limitations and Further Research

Two limitations to this study are noted and should be considered when interpreting the reported results. First, data collection was limited to a single, although exemplary social media Q&A site, Quora. Data collection from other social media sources could be considered in future studies. Second, despite a rigorous coding scheme, the assignment of questions to segments was according to the question interpretation but not the demographic content, because of the unavailability of the question-owner demographic information.

The results of this study can open interesting directions for further research. Ranking might be a focus in further research to clarify whether prospects do not require information about ranking or that they might have known it already. Regarding administrative factors, while prospects can check the information on websites, they also check on social media. This relates to the information gathering behaviours of prospective students across communication sources. If prospects can see information on the websites and it can be easily checked, are they double checking this information? Or, is this a sign that the prospects are not using the information sources we expect but rather are posting their questions on social media – arguably an easier way of getting a response. Moreover, further research could analyse the nature of question content and delivery of messages (antecedents of eWOM), to understand the actual reasons why they ask questions (for example, recommendation, factual information or conversation seeking).
8.6 Conclusions

The content analysis in this study explored the information sought by prospective students on social media during their decision-making process. Taking advantage of a new data collection setting from online questions, this research reveals insights on information sought through actual eWOM-seeking behaviour, rather than only from survey data. The findings show that most of the factors summarised from the literature were represented in social media. Popular attributes that were highly rated from past research were identified in the data as the top information preferences, such as course content (Moogan 2011; Soutar & Turner 2002; Veloutsou et al. 2004), reputation of university (Briggs 2006; Veloutsou et al. 2004), or degree reputation (Simões & Soares 2010). Factors in relation to reputation category, except ranking, are most frequently discussed. The findings demonstrate a split into degree reputation and university reputation, in line with Simões and Soares (2010). Prospects also often seek information about other factor categories, such as employment prospects, psychosocial life, course difficulty and entrance requirements. The location factor, which was frequently mentioned in prior research about choice factors, was enquired about less often.

Practically, the results provide a fresh perspective on this topic, which would benefit the communication strategies of educational institutions. University practitioners and managers should pay more attention to online and social media platforms, as they are likely to become the dominant communication channels in the future and a key student recruitment platform. In that landscape, content marketing would play a critical role within the universities’ communication strategy. Taking a further step from understanding the choice factors, university managers can now further understand the demands made of information regarding these factors on social media channels, so that they can modify their activities on social media and content marketing to satisfy these needs.
Chapter 9: General Discussion

The previous chapters present the five papers which have been written within the scope of this doctoral research. The papers report research approaches and findings in response to the issues identified in the five research questions. Although the studies have been conducted and expressed separately as five papers, the results of the research collectively contribute to the knowledge and literature of WOM, ELM theory and higher education choice. This chapter provides a general discussion on the findings and implications of these doctoral papers. Section 9.1 summarises the key findings from each of individual studies. Table 9.1 provides a summary of the key findings, theoretical contributions and practical implications from the five papers. Next, Section 9.2 discusses and categorises the theoretical contributions, as well as suggests directions for future research. Section 9.3 presents the practical implications which apply to multiple practices for WOM, and summarises the knowledge and key take-away ideas for university managers and practitioners.

9.1 Summary of Key Findings

The papers in this doctoral thesis focus on two research themes: (1) WOM information processing; and (2) choice factors and information sought from WOM. The first theme includes Papers 1, 2 and 3; and the second theme is reported in Papers 4 and 5. Combined, they represent a conceptual paper and four empirical papers. The key findings of such papers are integrated as follows (see Table 9.1 for the summary).

First, as Paper 1 is a conceptual paper, there are no empirical findings reported. This paper presents an extensive review of the WOM literature and categorises the key WOM factors into six groups, including a new factorial group, as developed from a reconceptualisation of the previous research. The key findings of this conceptual paper are also the contributions to theory which are presented in the following section. They are the development of a refined WOM Processing Framework and six propositions presented to demonstrate a holistic view on factors of WOM information processing
by receivers. This paper serves as a background for the two empirical papers which considered WOM information processing.

Table 9.1: Summary of findings, theoretical contributions and practical implications

<table>
<thead>
<tr>
<th>Key Findings</th>
<th>Theoretical Contributions</th>
<th>Practical Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Paper 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The WOM Processing Framework</td>
<td>• WOM: Introduces new factorial categories as the factors of WOM processing: situational and enduring involvement, communication channel</td>
<td>• Practitioners have an overall view of all factors involved when receivers processing WOM messages</td>
</tr>
<tr>
<td>• Six propositions for future research</td>
<td>• WOM: Develops the WOM Processing Framework</td>
<td>• Offers insights into how the factors influence and interact with each other.</td>
</tr>
<tr>
<td></td>
<td>• WOM: Six propositions for future research</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Involvement: Distinguishes the situational factors and enduring involvement</td>
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<tr>
<td><strong>Paper 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The impacts of four source characteristics on message quality</td>
<td>• WOM: Reconfirms the effects of WOM primary sources, e.g. opinion leadership, trustworthiness</td>
<td>• Message seeding and source selection should be connected, as the factors have mutual relationships and impacts on WOM influence</td>
</tr>
<tr>
<td>• The mediation of message quality on the effects of source characteristics on WOM influence</td>
<td>• WOM: Identifies the mediation of message quality</td>
<td>• Opinion leaders and trustworthy sources should be first considered in practice, especially in higher education context</td>
</tr>
<tr>
<td>• The moderating effects of involvement and valence</td>
<td>• ELM: Peripheral and central processing do not exist separately</td>
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</tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Paper 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Three significant serial mediation effects</td>
<td>• ELM: Identifies the causal chains of processing routes based on ELM theory: the peripheral processing enables the peripheral attitude shift and return to the central processing</td>
<td>• Pull communication strategies should be more focused to attract WOM seekers, e.g. generating ‘attractive’ message to draw attention of consumers</td>
</tr>
<tr>
<td>• The peripheral routes via message quality (the mediating effects of message quality)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Second, using the revised conceptualisation presented in Paper 1, Papers 2 and 3 used quantitative methods to empirically analyse the relationships of WOM processing factors, basically the source and message characteristics. These two constructs are widely examined in WOM research as two separate predictors of WOM influence (e.g. Mahapatra & Mishra 2017), as they represent two routes of information processing.

<table>
<thead>
<tr>
<th>Opinion leaders are more likely than closed sources to attract WOM seekers</th>
<th>WOM: Explores the relationships of seeking behaviour, source and message. Personal sources are more influential than interpersonal sources</th>
<th>Personal sources rather than interpersonal sources should be first considered in practice, especially in higher education context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The importance of choice factors across segments</td>
<td>HE: Contributes to the literature on choice factors, information sources and the decision-making process</td>
<td>University managers can customise the marketing strategies from the understanding of choice factors and information sources’ preferences</td>
</tr>
<tr>
<td>The importance of information sources across segments</td>
<td>HE: First study to analyse the segment of students intending to study abroad when they are still in the home country</td>
<td>University managers can customise the marketing strategies for multiple student segments</td>
</tr>
<tr>
<td>The choice factors discussed in WOM communication</td>
<td>WOM: Understanding how WOM sources are used by consumers of a credence service</td>
<td>University managers know how to use WOM information sources effectively</td>
</tr>
<tr>
<td>Categorisation of choice factors and information sources</td>
<td></td>
<td>University managers can customise the marketing strategies from the understanding of choice factors and information sources’ preferences</td>
</tr>
</tbody>
</table>

| Paper 5 |  |
| The list of choice factors information sought from social media eWOM | HE: Contributes to the literature on choice factors and the decision-making process | University managers understand the demand for information as the basis for developing promotional tools on social media |
| The demand of information across groups: international/non-international students, undergraduate/postgraduate students | HE: Explores the usage of social media by prospective students | University managers know how to use eWOM or social media sources effectively |
| WOM: Understanding how the social media eWOM are used by consumers of a credence service |  | University managers understand the demand for information as the basis for developing promotional tools on social media |
|  |  | University managers know how to use eWOM or social media sources effectively |
according to ELM theory (Cacioppo & Petty 1984). The empirical studies in Papers 2 and 3 generally examine the primary characteristics of WOM sources and message quality. Findings in these two papers identify the effect of each source characteristic (e.g. opinion leadership) and assert the mediation of message quality.

Paper 2 investigates the impacts of four source characteristics on message quality and the mediation effects of message quality on the effect of these source characteristics on WOM influence. Findings reveal significant impacts of all four source characteristics, namely opinion leadership, trustworthiness, expertise and homophily, on message quality, with the strongest impact being on opinion leadership and the weakest impact on homophily. The analyses of mediation of message quality were tested, which resulted in significant mediating effects being found for all source characteristics. Besides this, the moderation of involvement and valence were also asserted.

Paper 3 also involved the source characteristics of message quality and source characteristics, but focussed attention specifically upon task involvement and active WOM seeking behaviours. Mediation analyses reveal significant causal chains on three serial mediation models from task involvement and active WOM seeking, which explore the processing routes when receivers are exposed to WOM information. Between the two source characteristics, results also identify that opinion leadership has a stronger impact than closeness.

Third, for the research theme of choice factors and information sought from WOM, Papers 4 and 5 present the choice factor analyses in various contexts. Based on the fragmented lists of choice factors from the literature (Hemsley-Brown & Oplatka 2015), this section of the research analysed how important each choice factors were for prospective students, through a survey of high school students and a content analysis using data from social media. Prospective students’ usage of WOM and eWOM were also investigated in these papers. In general, ‘job prospect’ and ‘course content’ are the top choice factors for all contexts; while the common factor used by universities, ‘ranking’, actually ranked low for both samples.
Paper 4 analyses the importance of choice factors and information sources to prospective students during the decision-making process across four segments, namely: Vietnamese students intending to study in Vietnam; Vietnamese students intending to study abroad; Vietnamese students intending to study in Vietnam or abroad but not yet decided; and Australian students. The top choice factors across the segments are ‘job prospect’, ‘teaching quality’, ‘staff expertise’, and ‘course content’. Results from this study also indicate some differences among segments, e.g. ‘reputation’ or cost-related factors. The information sources analysis shows that Vietnamese students prefer WOM or personal sources rather than commercial information. The analysis of which choice factors were most frequently discussed in WOM communication indicates interesting results. For example, for the sub-group of Vietnamese students intending to study domestically, the most common discussion topic is ‘job prospect’; for the sub-group of Vietnamese students intending to study abroad, their most frequent discussion topic is ‘tuition fee’ and ‘scholarship’; while Australian students most commonly discuss ‘location’.

Paper 5 aimed to explore the information that prospective students seek from eWOM. A content analysis was conducted to understand which choice factors were asked about by members of the social media communities. The top choice factors were identified as ‘degree reputation’, ‘course content’, ‘university reputation’ and ‘employment prospect’. Comparisons between groups of students (international/non-international, undergraduate/postgraduate) were also reported in the paper.

9.2 Contributions to Theory and Future Research

According to the findings of this research, as presented in the five papers, this doctoral thesis provides significant contributions to the literature on WOM, higher education choice, and ELM theory. In general, the conceptualisation in Paper 1 provides an integrated framework of WOM processing for WOM literature. Papers 2 and 3 empirically extend our understanding of the relationships of WOM factors, and contribute to ELM theory by exploring the processing routes. Papers 4 and 5 analyse the choice factors and contribute to this area which is relatively fragmented. The details of the contributions are discussed as follows and summarised in Table 9.1.
First, as a conceptual paper, Paper 1 significantly enriches the body of WOM knowledge. The revised conceptualisation introduces a new conceptual framework to the WOM literature. It responds to the call for further research on WOM processing from the receiver perspective (Martin & Lueg 2013), following the emergence of communication interactions and channels (Libai et al. 2010). The paper reviews factorial groups in the conceptualisation of Sweeney et al. (2008), and makes new additions to these (enduring involvement, situational factors and channel characteristics). The proposed conceptual framework includes all factors and six propositions, providing a theoretical foundation and suggests avenues for future research. Furthermore, two constructs of involvement, namely, enduring and situational, are included in WOM conceptualisation for the first time.

Second, based on the conceptualisation developed in Paper 1, the empirical investigations in Papers 2 and 3 develop conceptual models, based on their own research questions, to analyse the direct and indirect effects around WOM factors. The analyses focus on source characteristics and message quality. These findings help to understand the relationship between source and message; and, importantly, confirm the significant mediating effects of message quality, thereby adding to WOM knowledge and deepening the understanding of WOM processing. This contributes to WOM knowledge by uncovering the mutual relationship of the two most frequently mentioned WOM processing factors, and exploring their mediation effect. Regarding WOM source characteristics, the characteristics examined in these empirical papers are the popular source types. Thus, the empirical analyses evaluate and compare the effects of these source types, thereby adding a contribution to WOM literature and practice.

For ELM theory, Papers 2 and 3 enhance the application of ELM theory in WOM research, in terms of examining the link between central and peripheral routes. In WOM research, ELM theory has been used as a theoretical background to examine the effect of WOM source (peripheral processing) and the effect of message (central processing) on WOM outcomes. However, the key difference between the present and previous research is the examination that the central and peripheral processing routes are actually not separated but linked. ELM theory describes that the peripheral cues would enable a peripheral attitude shift which would activate central processing (Kang
& Herr 2006; Petty & Cacioppo 1986). Therefore, Paper 2 examines the mediation effect of message quality, and Paper 3 examines the serial mediation effects. The findings confirm the mediations, and thus contribute to our understanding of ELM processing routes and the implications of this understanding for WOM research from the receiver perspective.

Moreover, Paper 3 also contributes to the literature on involvement in marketing research, by differentiating the two states of involvement. In detail, involvement is a popular marketing construct, but there is little attention paid in marketing research to distinguishing the enduring and situational states of involvement (Huang 2006; Roser 1990). The identification of two constructs, namely task involvement and active WOM seeking, raise research ideas for future research in WOM and related areas regarding involvement.

Third, higher education choice literature in particular is primarily benefited from the results of this research as presented in Papers 4 and 5. Historically, choice factors have been a popular topic in the extant literature, but the findings in prior research are fairly fragmented because the importance of choice factors is strongly dependent on the research contexts (Hemsley-Brown & Oplatka 2015). Therefore, the empirical analyses in Papers 4 and 5, which were conducted across various groups of prospective students, contribute significant insights into the perceptions of prospective students in this area. Future research should focus on investigating the choice factors which are found to be significant in prior research or important in practice but for which the present analyses indicate unexpected results (for example, ‘ranking’, ‘location’ or ‘reputation’).

Furthermore, responding to the calls for further WOM research on students’ decision-making process (e.g. Briggs & Wilson 2007; Moogan et al. 1999), the present empirical studies explore how prospective students use WOM sources, eWOM and social media sources to seek information regarding their choice factors.

In a broader scope, research on higher education marketing is currently emerging due to the trend towards globalisation in education (Min & Falvey 2017; OECD 2017) and the waves of international students (Choudaha 2017). As a key topic, many papers have explored and reported the university choice behaviour of international students
(Maringe & Carter 2007; Wilkins & Huisman 2015). However, most of these surveyed international students after their arrival in the destination country, which represents the post-purchase stage of the decision-making process. Paper 4 contributes to the related literature by conducting research with final-year high school Vietnamese students when they are experiencing the information search and evaluation of alternative stages of the decision-making process.

9.3 Implications for Practice

This doctoral thesis adds to theoretical knowledge and also provides practical guidelines which can assist marketers and practitioners, especially university marketers and managers, to develop more effective marketing and communication strategies. The research into WOM information processing provides practical guidelines to enable better practice in the selection of more suitable sources and message content for WOM marketing initiatives. Research into choice factors and information sought from WOM identified the information needs of prospective students, which can enable practitioners to more effectively design student recruitment strategies.

First, for WOM marketing, marketers can apply the findings in this thesis to the development of WOM marketing strategies. The results of this research can also be used in the development of less commercial communications, including co-created campaigns. Such campaigns could include the more effective design of seeding and communication programs to intentionally influence the consumer-to-consumer interactions, as so-called WOM marketing (Kozinets et al. 2010). With the popularity of social media, WOM marketing can be more applicable, for example, viral marketing or WOM referral programs (Trusov et al. 2009). To initiate an effective WOM marketing campaign, marketers have to clearly understand the nature of WOM information processing from the receiver perspective and the factors within this process. Findings in the first research theme provide guidelines in the selection of message content and source for WOM campaign development.

As the findings unveil the mediating roles of message quality, the creation of message content should be more focused during the WOM marketing campaign, because WOM
messages are always evaluated by receivers. The selection of seeding sources in WOM campaigns should be aligned to the content delivered in the WOM messages, which would trigger the processing routes. Regarding the selection of sources, opinion leadership and trustworthiness emerged as the most influential sources in the context of credence services and higher education. Opinion leadership refers to individuals who have knowledge in the field and influence followers through their frequent sharing activities. Trustworthiness is increasingly important in the era of the Internet and social media, because of the anxiety about ‘fake news’. Selecting the most appropriate seeding sources which satisfy these characteristics could enhance the chances of success of corporate WOM marketing activities.

Marketers who prefer to employ WOM marketing should consider the conceptual framework in Paper 1, which summarises all factors of WOM processing and the relationships among them. The framework proposes the role of channel characteristics, situational factors and enduring involvement. Previous research found that consumers are sensitive to the contexts of interactions and adjust communication choices accordingly (Buttle & Groeger 2017; Kozinets et al. 2010). As communication channels become more diversified, understanding and selecting the most appropriate channel for a WOM marketing campaign would be a key factor for success. Thus, in WOM marketing, the question, ‘Who says what to whom in what channel?’ (Buttle & Groeger 2017, p. 1035), is fundamental, and this research adds to practitioners’ understanding to more effectively determine the best answer.

Second, for higher education marketing, marketers and practitioners in the higher education sector could rely on the papers in this thesis as guidance for the student recruitment practice. The empirically important weights of choice factors suggest which choice factors could be more appropriately targeted in the provision of information. The information regarding important choice factors such as ‘job prospect’ or ‘course content’ should be available and exposed in the communication channels through which prospective students seek information during their decision-making process. Moreover, as there is unlikely to be a single list of factors that all students use, university marketers need to understand the information needs of their target segments, to provide correct types of information appropriate to each. Based on the segmentation
analyses in Paper 4, university marketers can develop pull strategies in which the information requirements of each segment are better satisfied so that prospective students are motivated to consider the marketers’ university.

Furthermore, in order to provide relevant information to prospective students, WOM sources should be used and WOM processes should be understood (Briggs & Wilson 2007). The present research provides key insights into WOM usage by prospective students and WOM processing. WOM marketing strategies in higher education are important, and university marketers need to find effective personal information sources to supply ‘quality’ information. For example, family members could be targeted, and contact with high school teachers or career advisors should be made by the marketers’ university to provide them positive information about the university.

Regarding eWOM, it is noteworthy that social media platforms have become popular and effective channels. Thus, university marketers and practitioners should make their own information available in online communities to support the information needs of prospective students and to correct any negative WOM messages. Beside official fanpages on social media platforms, universities could also employ promotional tactics to encourage current students or alumni to share positive WOM information or to tag the university name in their posts, to enhance their presence in virtual environments.
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205


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Appendices

Appendix A1: Participant Information (English)

PARTICIPANT INFORMATION

**Project Title:** Word-of-Mouth Communication in Higher Education

**Investigators:**
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Senior Lecturer, RMIT University, angela.dobele@rmit.edu.au, (03) 9925 5904

Dr Linda Robinson  
Lecturer, RMIT University, lindaj.robinson@rmit.edu.au, (03) 9925 5863

Thank you for clicking the link through to this survey!

**Complete the survey to go into the draw for one of three $100 Coles Myer gift cards**

You have been invited to participate in a research project being conducted by RMIT University. Please read this section carefully and be confident that you understand its contents before deciding whether to participate. If you have any questions about the project, please ask one of the investigators.

**Who is involved in this research project? Why is it being conducted?**
This research project is being conducted by Mr. Tri Le, as part of a Doctor of Philosophy degree, under the supervision of Dr Angela Dobele and Dr Linda Robinson. All researchers are based in the School of Economics, Finance and Marketing at RMIT University. This project is designed to investigate the word-of-mouth adoption process and the choice factors of students when making a decision on which university to apply for and/or attend. This project has been approved by the RMIT University Human Research Ethics Committee.

**Why have you been approached?**
The success of this project relies upon receiving insights from students who are currently experiencing the decision making process for selecting a university. We have sought support from high schools and have advertised this survey at university open days and educational promotional events to reach out to high school students.

**What is the project about? What are the questions being addressed?**
This research seeks to investigate word-of-mouth communication in higher education by examining the two key elements of referral usage in students’ selection processes: sources and content. The effects of word-of-mouth source characteristics and message characteristics as well as the choice...
factors of students are being investigated within this research. We greatly appreciate your participation in this survey. We will require approximately 300 respondents to this survey so your participation is very valuable to us.

If I agree to participate, what will I be required to do?
If you agree to participate in this study you will be asked to complete an online/paper questionnaire. It is expected that the questionnaire will take approximately 15 minutes to complete. In order to complete the questionnaire just click on the "Next" button provided and it will take you to the survey. Alternatively, if you wish for a hard copy please contact Mr. Tri Le and one will be sent to you via email. We are using Qualtrics Survey Software as the host for this project. Please note that every time you hit the “Next” or “Back” button in the survey, your current progress is saved automatically. Ideally we would like you to complete the survey in one go. If you have to exit temporarily you can just begin pick up where you left off by clicking on the same survey link. Once you have completed the online questionnaire, please click the “Submit” button at the end of the survey.

What are the possible risks or disadvantages?
Users should be aware that the World Wide Web is an insecure public network with the potential risks that a user’s transactions are being or may be viewed, intercepted or modified by third parties or that data which the a user downloads may contain computer viruses or other defects. However, completing the questionnaire does not present any perceived risks outside your normal daily activities. All data will be de-identified and no respondent will be identified during the research.

What are the benefits associated with participation?
While there may not be any direct benefits to you as a result of participating in this project, it is expected that the information from this research will contribute to a better understanding of student behaviour during university selection process. Therefore, this research may help to increase the chance of relevant information reaching prospective students, as well as may help to improve universities’ marketing strategy. We do recognise that we are asking for your time and your insights and would like to offer a small token of our appreciation. Once you have completed the survey, you can choose to enter the draw to win one of three $100 Coles Myer gift cards. You must complete the survey by September 14, 2016, to be eligible for the prize draw. Winners will be drawn on September 21, 2016, at RMIT University and winners will be notified by email/phone.

What will happen to the information I provide?
Your participation in this study will remain anonymous and you will not be personally identified in any subsequent reports, publications or presentations arising from the study. All data is analysed at the aggregate level. All the information that you provide is strictly controlled at every stage of the investigation, meaning that it will only be accessible to myself and supervision team; the identified researchers. The data collected during the study may be included in a thesis and a report of the project outcomes may be published in conference proceedings and journals. Only de-identified data will be used.

If you agree to participate in this survey, the responses you provide to the survey will initially be stored on a host server that is used by Qualtrics. No personal information will be collected in the survey so none will be stored as data. Once we have completed our data collection we will import the data we collect to the RMIT server where it will be stored securely for a period of five (5) years.

What are my rights as a participant?
Participation in this study is completely voluntary and there is no obligation for you to take part. You have the right to withdraw your participation at any time, without prejudice. However, please note, once you have returned the questionnaire, it will not be possible to remove it if you decide not to participate. Throughout the study, you have the right to have any questions answered at any time.

Whom should I contact if I have any questions?
If you have any questions or would like more information about this study, please do not hesitate to contact either Tri Le or supervisors, and discuss your concerns confidentially.

Thank you so much in advance upon your contribution to this research.
Yours sincerely

Mr Tri Le
Dr Angela Dobele
Dr Linda Robinson

If you have any concerns about your participation in this project, which you do not wish to discuss with the researchers, then you can contact the Ethics Officer, Research Integrity, Governance and Systems, RMIT University, GPO Box 2476V VIC 3001. Tel: (03) 9925 2251 or email human.ethics@rmit.edu.au
Appendix A2: Questionnaire (English)

**QUESTIONNAIRE**

1. **Are you currently in your last year of high school?**
   1. Yes
   2. If No, which year are you in? ____________________

2. **Are you considering attending a higher education institution (i.e., university, TAFE) after graduation from high school?**
   1. Yes
   2. No. [if selected, survey ends]

3. **Which type of higher education are you considering?** [multiple answers allowed]
   1. A university in Victoria
   2. A university in another state
   3. A university overseas
   4. TAFE or a specialist college - vocational education

4. **How important are each of the following sources of information to you when considering your choice of university?**

<table>
<thead>
<tr>
<th>Source</th>
<th>Not at all important</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your parent/s</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Your siblings or other relatives</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Your friends</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Teachers and school advisors</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Social media, reviews, discussions, comments</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>University websites</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>University brochures and advertising</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Promotional visits to high schools by universities</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>University open days or visits</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

5. **Word-of-mouth** is all kinds of informal communication including all conversations with your family, friends, teachers or people, as well as all conversations (comments, reviews, discussions) you get from online environments.

Thinking about the last **word-of-mouth conversation** you had about choosing a university to attend, **who** was the conversation with? What relationship do you have with this person (e.g. parent, careers advisor at school, online community member)?

--------------------------------------------------------------------------------------------------------------------------

--------------------------------------------------------------------------------------------------------------------------
6. What was the conversation about?

7. Please rate how strongly you agree with the following statements During this conversation...

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I explicitly requested information from this person to help with my choice of university.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I made a number of attempts to gather information from this person to help with my choice of university.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

8. Thinking about this last word-of-mouth conversation, please rate how much you agree with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>This conversation has a significant influence on my choice of university.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>This conversation mentioned helpful things I had not considered.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>This conversation provided some different ideas than other sources.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>This conversation really helped me make the decision about selecting a university.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>This conversation influenced my view on the features I should look for in a university.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

9. Was this conversation?

<table>
<thead>
<tr>
<th>Type</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>In person</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Verbal</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>One-to-one conversation</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Synchronous Communication (occurring at the same time, e.g. phone call, face-to-face discussion)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Online</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group or Public conversation (e.g. presentation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asynchronous Communication (not occurring at the same time, e.g. emails, sms, letters)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Thinking about the person you communicated with in this word-of-mouth conversation, please rate how much you agree with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>This person is an expert.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>This person is experienced.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>This person is knowledgeable.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>This person is qualified.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>This person is skilled.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>This person is dependable.</td>
<td></td>
</tr>
<tr>
<td>This person is honest.</td>
<td></td>
</tr>
<tr>
<td>This person is reliable.</td>
<td></td>
</tr>
<tr>
<td>This person is sincere.</td>
<td></td>
</tr>
<tr>
<td>This person is trustworthy.</td>
<td></td>
</tr>
<tr>
<td>In general, I talk with this person very often about my choice</td>
<td></td>
</tr>
<tr>
<td>of university.</td>
<td></td>
</tr>
<tr>
<td>This person provided me with a great deal of information about</td>
<td></td>
</tr>
<tr>
<td>universities.</td>
<td></td>
</tr>
<tr>
<td>During the past six months, I think this person has talked</td>
<td></td>
</tr>
<tr>
<td>with a lot of people about universities.</td>
<td></td>
</tr>
<tr>
<td>Compared with other people, I think this person is often</td>
<td></td>
</tr>
<tr>
<td>asked about universities.</td>
<td></td>
</tr>
<tr>
<td>In a discussion about universities with this person, I am</td>
<td></td>
</tr>
<tr>
<td>more likely to receive information from them than I provide in</td>
<td></td>
</tr>
<tr>
<td>return.</td>
<td></td>
</tr>
<tr>
<td>In general, I often use this person as a source of advice.</td>
<td></td>
</tr>
</tbody>
</table>

11. Strongly disagree → Strongly agree

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>This person has a close relationship with me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can share my personal thoughts with this person.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>I try to help this person whenever I can.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I usually spend free time with this person.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have a similar outlook on life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We share common interests.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have similar likes and dislikes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. Now, thinking about the message content of the word-of-mouth conversation, please rate how strongly you agree with the following statements.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>The message was informative.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The message was reliable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The message was clear.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The message was specific.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>The message was elaborate.</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>The message was explicit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The message was intense.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The message was reinforcing.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The message was powerfully delivered.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>The message was delivered in a strong way.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The message was delivered in an important manner. 1 2 3 4 5 6 7
The message was delivered using strong words. 1 2 3 4 5 6 7

13. Was the information/advice you received:

<table>
<thead>
<tr>
<th>Extremely negative</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely positive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. The topics discussed in our conversation were relevant to my existing knowledge about universities. 1 2 3 4 5 6 7
The topics discussed in our conversation were relevant to my prior experience with universities. 1 2 3 4 5 6 7
I am a beginner when it comes to the topics discussed in our conversation about universities. 1 2 3 4 5 6 7
I am considering the points mentioned in our conversation in making my decision about university. 1 2 3 4 5 6 7
I am interested in the points mentioned in our conversation. 1 2 3 4 5 6 7
The points mentioned in our conversation are important to me when making my decision about university. 1 2 3 4 5 6 7

15. For each of the following factors, please rate how important each factor is to your decision on which university to attend

<table>
<thead>
<tr>
<th>Factor</th>
<th>Not important at all</th>
<th>Slightly important</th>
<th>Important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>University reputation</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree reputation</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University ranking</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University public image</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job prospects after graduation</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities for internships during study</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University's connections with industry</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability and broad range of courses</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual course content</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of teaching</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty of course</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expertise of teaching staff</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of university (private/public, old/new)</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application/Admission process</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrance requirements</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilities at the university</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student life at the university</td>
<td>1 2 3 4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16. Which of the following factors have you discussed in your word-of-mouth conversations on which university to attend (tick all that apply).

1. University reputation
2. Degree reputation
3. University ranking
4. University public image
5. Job prospects after graduation
6. Opportunities for internships during study
7. University's connections with industry
8. Availability and broad range of courses
9. Actual course content
10. Quality of teaching
11. Difficulty of course
12. Expertise of teaching staff
13. Type of university (private/public, old/new)
14. Application/Admission process
15. Entrance requirements
16. Facilities at the university
17. Student life at the university
18. Location
19. Tuition fees and stipend
20. Scholarship opportunities
21. Immigration opportunities

17. Please rate how strongly you agree with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selecting the right university is very important to me.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Attending university will be very valuable to me.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Attending university will be very beneficial to me.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>The process of selecting a university is very exciting.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>I really want to attend university.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

18. Now, a final few questions about you:

What is your gender?
1. Female
2. Male

19. How old are you?? (khoanh tròn lựa chọn tương ứng)
1. 16 or under
2. 17
3. 18
4. 19 or above
20. **What type of degree would you like to study at University/TAFE?**
   1. Architecture and Design
   2. Arts and Music
   3. Business and Economics
   4. Education
   5. Engineering
   6. Law, Social Sciences
   7. Medicine, Dentistry and Health Sciences
   8. Science
   9. Other

21. **Do you have older brothers and/or sisters who are currently attending or have completed a university degree?**
   1. Yes
   2. No

22. **What is the highest level of education your parents have completed?**

<table>
<thead>
<tr>
<th></th>
<th>Completed Primary School</th>
<th>Completed High School</th>
<th>Diploma</th>
<th>University Degree</th>
<th>Postgraduate Degree</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Mother</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
THƯ MỜI THAM GIA KHẢO SÁT Đối VỚI HỌC SINH

THÔNG TIN DÀNH CHO NGƯỜI THAM GIA KHẢO SÁT
Tên đề tài: Thông tin truyền miệng trong việc lựa chọn trường đại học

Thành viên nhóm nghiên cứu:
Thạc sĩ Lê Đình Minh Trí
Nghiên cứu sinh, Đại học RMIT (Úc), tri.le@rmit.edu.au

Tiến sĩ Angela Dobele
Giảng viên chính, Đại học RMIT (Úc), angela.dobele@rmit.edu.au, (+613) 9925 5904

Tiến sĩ Linda Robinson
Giảng viên, Đại học RMIT (Úc), lindaj.robinson@rmit.edu.au, (+613) 9925 5863

Cảm ơn bạn đã đồng ý tham gia khảo sát này!
Ban được mời tham gia khảo sát trong một dự án nghiên cứu được thực hiện bởi Trường Đại học RMIT. Xin vui lòng đọc kỹ những nội dung ниже trong thư mời này trước khi quyết định tham gia vào nghiên cứu này. Nếu bạn có bất kỳ câu hỏi gì về đề tài nghiên cứu, vui lòng đặt câu hỏi đến một trong các nhà nghiên cứu được nêu ở trên.

Những ai thực hiện đề tài nghiên cứu này? Tại sao đề tài được tiến hành?
Đề tài này là một phần trong đề tài Tiến sĩ được thực hiện bởi ông Lê Đình Minh Trí, dưới sự hướng dẫn của TS Angela Dobele và TS Linda Robinson. Ông Trí là giảng viên trường Đại học Quốc tế, ĐHQG TPHCM và hiện đang là nghiên cứu sinh tại Đại học RMIT, Melbourne, Úc. Nghiên cứu sinh và người hướng dẫn hiện đang làm việc tại Khoa Kinh tế, Tài chính và Marketing, thuộc Đại học RMIT, Melbourne, Úc.
Đề tài được tiến hành nhằm khảo sát sự tiếp nhận của học sinh chuẩn bị vào đại học với những nguồn thông tin truyền miệng và những yếu tố liên quan đến lựa chọn trường đại học của học sinh. Đề tài đã được Ủy ban Dạo đức Nghiên cứu của Đại học RMIT thông qua.

Vi sao bạn được tiếp cận?
Thành công của nghiên cứu phụ thuộc lớn vào các thông tin khảo sát phản ánh trải nghiệm của học sinh trong giai đoạn lựa chọn trường đại học. Vì vậy, nghiên cứu nhằm tối khảo sát đối tượng học sinh lớp 12. Khảo sát được thực hiện với sự đồng ý và hỗ trợ của các trường phổ thông trung học, đồng thời khảo sát cũng được thực hiện tại các ngày hội tư vấn hướng nghiệp.

Nơi dùng của đề tài là gì? Các câu hỏi được giải quyết là gì?
Đề tài nghiên cứu này tiến hành điều tra các nguồn thông tin truyền miệng trong bối cảnh chọn trường đại học, bằng cách khảo sát hai yếu tố chính: nguồn thông tin và nội dung thông tin. Đề tài được thiết kế để trả lời hai câu hỏi chính: Một, đặc tính của những nguồn thông tin truyền miệng nào tiếp cận đến học sinh trong quá trình chọn trường đại học và các tiêu chuẩn lựa chọn trường của học sinh; và Hai, Các nguồn thông tin truyền miệng này được tiếp nhận thế nào và sự ảnh hưởng ra sao đến quyết định của học sinh.

Chúng tôi rất biết ơn sự tham gia của bạn vào khảo sát này. Nghiên cứu cần nhận được ít nhất 300 phản hồi, vì vậy sự tham gia của bạn là rất giá trị đối với chúng tôi.

Nếu tôi đồng ý tham gia, những điều tôi sẽ phải làm là gì?
Nếu bạn đồng ý tham gia, bạn sẽ phải hoàn thành bằng câu hỏi khảo sát định kỳ. Bằng câu hỏi mất khoảng 15 phút để hoàn thành. Chúng tôi sẽ nhận lại bằng câu hỏi trực tiếp hoặc thông qua nhà trường.

Những rủi ro hoặc bất lợi có thể là gì?
Việc thực hiện khảo sát không tiềm án bất cứ nguy cơ nào. Tất cả dữ liệu từ khảo sát đều được mã hóa và không có bất cứ thông tin nào có thể xác định được những người tham gia khảo sát là ai.

Các lợi ích gắn liền với sự tham gia là gì?
Mặc dù không có lợi ích tích cực mà trực tiếp từ kết quả của đề tài, nhưng bạn có thể nhận được các lợi ích gián tiếp từ việc tham gia vào quá trình sáng kiến của các trường đại học. Kết quả nghiên cứu có thể giúp ích cho các trường hiểu rõ hơn nguyện vọng của học sinh và làm tăng cơ hội cho học sinh tiếp cận các thông tin phù hợp.

Chúng tôi rất biết ơn bạn đã dành thời gian cho nghiên cứu. Nhằm ghi nhận sự đóng góp này, với mỗi khảo sát được hoàn thành, chúng tôi sẽ thay bạn đóng góp 15.000 đồng cho quỹ khuyến học dành cho học sinh nghèo của Sở Giáo dục TPHCM.

Dữ liệu khảo sát được xử lý như thế nào?
Những người tham gia khảo sát được giữ ẩn danh và không xác định trong tất cả các phản ánh. Dữ liệu thu được được xử lý đồng bộ. Tất cả thông tin được bảo mật trong suốt quá trình nghiên cứu và chỉ được tiếp cận bởi những thành viên trong nhóm nghiên cứu. Chúng tôi rất biết ơn bạn đã dành thời gian cho nghiên cứu. Nhằm ghi nhận sự đóng góp này, với mỗi khảo sát được hoàn thành, chúng tôi sẽ thay bạn đóng góp 15.000 đồng cho quỹ khuyến học dành cho học sinh nghèo của Sở Giáo dục TPHCM.

Quyền của người tham gia?
Người tham gia khảo sát hoàn toàn tự nguyện. Bạn có quyền dừng khảo sát bất cứ lúc nào. Tuy nhiên, lưu ý rằng sau khi khảo sát đã được thực hiện và gửi đi, bạn không thể yêu cầu hủy nó nếu bạn thay đổi ý định. Trong suốt quá trình tham gia, bạn có quyền đặt câu hỏi bất cứ lúc nào.

Người mà tôi có thể liên hệ nếu có bất kỳ câu hỏi?
Nếu bạn có bất cứ câu hỏi gì về đề tài nghiên cứu này, vui lòng liên hệ ông Trí hoặc các thành viên khác để thảo luận thêm.

Xin chân thành cảm ơn sự tham gia của bạn.
Trân trọng,

ThS Lê Đình Minh Trí
Nếu Anh/Chị có bất kỳ băn khoăn, lo lắng về việc tham gia vào đề tài nghiên cứu mà không muốn thảo luận với các thành viên trong nhóm nghiên cứu, Anh/Chị có thể liên hệ cán bộ phụ trách bộ phận Đạo đức Nghiên cứu, Quản trị và Hệ thống, Đại học RMIT, GPO Box 2476V VIC 3001, Điện thoại: +61 3 9925 2251 hoặc Email: human.ethics@rmit.edu.au
# Appendix B1: Questionnaire ( Vietnamese )

## BẢNG CÂU HỎI KHẢO SÁT

### PHẦN 1: THÔNG TIN VỀ QUYẾT ĐỊNH VÀO ĐẠI HỌC

23. Bạn hiện đang là học sinh lớp 12? (*khoanh tròn lựa chọn tương ứng*)
   3. Có
   4. Nếu Không, bạn đang học lớp mấy? __________________

24. Bạn có ý định đăng ký vào đại học (cao đẳng) sau khi tốt nghiệp trung học phổ thông? (*khoanh tròn lựa chọn tương ứng*)
   3. Có

25. Loại hình trường đại học (cao đẳng) nào bạn đang cân nhắc lựa chọn? (*có thể khoanh tròn nhiều câu trả lời phù hợp*)
   5. Một đại học ở TP HCM
   6. Một đại học ở địa phương khác
   7. Đì du học nước ngoài
   8. Cao đẳng, trung học chuyên nghề nghiệp
   9. Một đại học nước ngoài có cơ sở ở Việt Nam

26. Hãy đánh giá tầm quan trọng của những nguồn cung cấp thông tin dưới đây với quyết định chọn trường đại học của bạn?

   (*khoanh tròn vào số tương ứng từ 1 đến 7*)

<table>
<thead>
<tr>
<th>Hoàn toàn không quan trọng</th>
<th>Cực kỳ quan trọng</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cha mẹ bạn</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Anh chị em hoặc những người thân khác trong gia đình</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Bạn bè của bạn</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Thầy cô giáo</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Các thông tin, đánh giá, bình luận trên mạng xã hội</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Website các trường đại học</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Tài liệu giới thiệu và quảng cáo của các trường đại học</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Những lần các trường đại học đến giới thiệu</td>
<td>1  2  3  4  5  6  7</td>
</tr>
<tr>
<td>Các chuyến tham quan trường đại học</td>
<td>1  2  3  4  5  6  7</td>
</tr>
</tbody>
</table>

### PHẦN 2: THÔNG TIN MÔ TẢ VỀ NGUỒN THÔNG TIN TRUYỀN MIỆNG MỚI NHẤT

27. Thông tin truyền miệng là tất cả những nguồn thông tin bạn thu được qua các giao tiếp hàng ngày. Nó bao gồm những lần nói chuyện với gia đình, bạn bè, thầy cô và các trao đổi cá nhân khác, ngoài ra giao tiếp truyền miệng cũng bao gồm tất cả những thông tin không chính thức khác (phi thương mại) trên mạng (như bình luận, đánh giá, thảo luận).

Vui lòng nghĩ về lần trao đổi (lần tiếp nhận) thông tin truyền miệng mới nhất có liên quan đến quyết định chọn trường đại học, bạn hãy viết lên mụcترا ngắn gọn thông tin truyền miệng này. Bạn nói chuyện với ai? Mối quan hệ với người này?...
28. Cuộc trao đổi, nói chuyện này về vấn đề gì?


29. Hãy đánh giá mức độ đồng ý của bạn với những điều sau đây về cuộc trao đổi này...


(khoanh tròn vào số tương ứng từ 1 đến 7) →

Tới đã thẳng thắn hỏi và chủ động yêu cầu thông tin cho quyết định chọn trường của mình.

Tới đã đặt nhiều câu hỏi nhằm thu được nhiều thông tin cho quyết định chọn trường của mình.

30. Hãy nghĩ về lần trao đổi (tiếp nhận) thông tin truyền miệng mới nhất có liên quan đến quyết định chọn trường đại học và đánh giá mức độ đồng ý của bạn với những điều sau đây:


(khoanh tròn vào số tương ứng từ 1 đến 7) →

Lần trao đổi này có ảnh hưởng lớn đến quyết định chọn trường của tôi.

Lần trao đổi này đề cập đến những vấn đề hữu ích mà tôi chưa nghĩ đến.

Lần trao đổi này cung cấp những ý tưởng khác hơn so với các nguồn thông tin khác.

Lần trao đổi này giúp ích khá nhiều cho tôi trong việc chọn trường.

Lần trao đổi này làm thay đổi quan niệm của tôi về các yếu tố then chốt mà tôi tìm kiếm ở một trường đại học.

31. Lần trao đổi này là (khoanh tròn lựa chọn tương ứng 1 hoặc 2)


Trao đổi offline 1 2 Trao đổi online (trực tuyến)

Trao đổi bằng lời nói 1 2 Trao đổi bằng cách viết

Trao đổi giữa hai cá nhân 1 2 Trao đổi trong nhóm hoặc công khai

(VD buổi thuyết trình)

Trao đổi đồng thời, thông tin truyền tải liên tục (VD nói chuyện trực tiếp, điện thoại) 1 2 Trao đổi không đồng thời, thông tin được chuyển không đồng bộ (VD viết thư tay, email, comments)

32. Hãy nghĩ về người mà bạn đã nói chuyện trong lần trao đổi (tiếp nhận) thông tin truyền miệng này và đánh giá mức độ đồng ý của bạn với những điều sau đây


(khoanh tròn vào số tương ứng từ 1 đến 7) →

Người này là một chuyên gia.

Người này có nhiều kinh nghiệm.

PHẦN 3: CÂU HỎI VỀ NGƯỜI MÀ BẠN ĐÂU TRAO ĐỔI
Người này có hiểu biết sâu rộng. & 1 2 3 4 5 6 7  
Người này có bằng cấp cao. & 1 2 3 4 5 6 7  
Người này có nhiều kĩ năng trong lĩnh vực. & 1 2 3 4 5 6 7  
Người này khá khéo quan đc lập. & 1 2 3 4 5 6 7  
Người này rất trung thực, thật thà. & 1 2 3 4 5 6 7  
Người này rất dũng cảm. & 1 2 3 4 5 6 7  
Người này rất chân thành, thẳng thắn. & 1 2 3 4 5 6 7  
Người này rất trung thực, thật thà. & 1 2 3 4 5 6 7  
Người này rất dũng cảm. & 1 2 3 4 5 6 7  
Người này rất trung thực, thật thà. & 1 2 3 4 5 6 7  
Người này rất dũng cảm. & 1 2 3 4 5 6 7  
Người này rất trung thực, thật thà. & 1 2 3 4 5 6 7  
Người này rất dũng cảm. & 1 2 3 4 5 6 7  
Nhìn chung, tôi thường xuyên nói chuyện với người này về quyết định chọn trường của mình. & 1 2 3 4 5 6 7  
Người này cung cấp khá nhiều thông tin về các trường đại học mỗi khi trao đổi. & 1 2 3 4 5 6 7  
Trong 6 tháng qua, tôi biết rằng người này cung cấp thông tin của mình trong việc chọn trường đại học. & 1 2 3 4 5 6 7  
So với những người khác, người này thường xuyên được tham khảo ý kiến về giáo dục đại học. & 1 2 3 4 5 6 7  
Trong các cuộc trao đổi về giáo dục đại học với người này, tôi hầu như luôn là người nhận thông tin hơn là cung cấp thông tin. & 1 2 3 4 5 6 7  
Nhìn chung, trong tất cả các cuộc trao đổi, tôi thường xuyên nhận được nhiều thông tin. & 1 2 3 4 5 6 7  
33. Hãy tiếp tục nghĩ về người mà bạn đã nói chuyện trong lần trao đổi (tiếp nhận) thông tin truyền miệng này và đánh giá mức độ đồng ý của bạn với những điều sau đây (khoanh tròn vào số tương ứng từ 1 đến 7) ➔ Hoàn toàn không đồng ý ➔ Hoàn toàn đồng ý

Người này có quan hệ thân thiết với tôi. & 1 2 3 4 5 6 7  
Tôi có thể chia sẻ thông tin cá nhân với người này. & 1 2 3 4 5 6 7  
Chúng tôi rất sẵn sàng hỗ trợ, giúp đỡ lẫn nhau. & 1 2 3 4 5 6 7  
Tôi thường xuyên dành thời gian với người này. & 1 2 3 4 5 6 7  
Tôi và người này có nhiều điểm chung về quan điểm sống. & 1 2 3 4 5 6 7  
Tôi và người này chia sẻ sở thích cá nhân. & 1 2 3 4 5 6 7  
Tôi và người này có nhiều tương đồng về những điểm thích và không thích. & 1 2 3 4 5 6 7  

PHÂN 4: CÂU HỎI VỀ NỘI DUNG THÔNG TIN BẠN ĐÃ TIẾP NHẬN

34. Trong phần này, hãy nghĩ về nội dung thông điệp mà bạn đã nhận được trong lần trao đổi thông tin truyền miệng này và đánh giá mức độ đồng ý của bạn với những điều sau đây (khoanh tròn vào số tương ứng từ 1 đến 7) ➔ Hoàn toàn không đồng ý ➔ Hoàn toàn đồng ý

Nội dung thông điệp cung cấp nhiều thông tin. & 1 2 3 4 5 6 7  
Nội dung thông điệp rất đáng tin cậy. & 1 2 3 4 5 6 7  
Nội dung thông điệp rất rõ ràng. & 1 2 3 4 5 6 7  

229
Nội dung thông điệp mang thông tin đặc biệt, đặc trưng. 1 2 3 4 5 6 7
Nội dung thông điệp chi tiết. 1 2 3 4 5 6 7
Nội dung thông điệp thẳng thắn, dứt khoát. 1 2 3 4 5 6 7
Nội dung thông điệp mạnh mẽ. 1 2 3 4 5 6 7
Nội dung thông điệp cũng có thể thông tin trước đó. 1 2 3 4 5 6 7
Thông điệp được truyền tải một cách mạnh mẽ. 1 2 3 4 5 6 7
Thông điệp được truyền tải bằng những lập luận chắc chắn. 1 2 3 4 5 6 7
Cách truyền tải thông điệp thể hiện sự quan trọng, nghiêm túc. 1 2 3 4 5 6 7
Thông điệp được truyền tải bằng những tư ngõ mạnh. 1 2 3 4 5 6 7

35. Hãy đánh giá mức độ đồng ý của bạn với điều sau đây (khoanh tròn vào số tương ứng từ 1 đến 7)

Cực kỳ xấu, tiêu cực    Cực kỳ tốt, tích cực

Những thông tin, lời khuyên, đánh giá về trường đại học mà bạn nhận được trong lần trao đổi này là (xấu – tốt) 1 2 3 4 5 6 7

36. Hãy tiếp tục nghĩ về nội dung thông điệp mà bạn đã nhận được trong lần trao đổi thông tin truyền miệng và đánh giá mức độ đồng ý của bạn với những điều sau đây (khoanh tròn vào số tương ứng từ 1 đến 7)

(cho dù chính được đề cập đến có liên quan, phù hợp với kiến thức của tôi về các trường đại học.
(cho dù chính được đề cập đến có liên quan, phù hợp với kinh nghiệm trước đây của tôi về các trường đại học.
Tôi hoàn toàn không biết gì về chủ đề được nói đến.
Tôi hoàn toàn không biết gì về chủ đề được nói đến.

Chủ đề chính được đề cập đến là yếu tố tôi đang cân nhắc. 1 2 3 4 5 6 7
Chủ đề chính được đề cập đến là yếu tố tôi đang cân nhắc. 1 2 3 4 5 6 7

Hoàn toàn không đồng ý    Hoàn toàn đồng ý

Danh tiếng của trường đại học. 1 2 3 4
Danh tiếng của bằng cấp, ngành học lựa chọn. 1 2 3 4
Thứ hạng của trường đại học trong các bảng xếp hạng chính thức. 1 2 3 4
Hình ảnh trước công chúng của trường đại học về mọi mặt. 1 2 3 4
Khả năng tìm việc làm sau khi tốt nghiệp. 1 2 3 4
Khả năng tìm việc làm thời gian hoặc thực tập trong giai đoạn sinh viên.
Mối liên kết giữa trường đại học với các công ty tuyển dụng. 1 2 3 4
Ngành học rộng và đa dạng, nhiều lựa chọn. 1 2 3 4

PHẦN 5: CÁC YÊU TỐ ẢNH HƯỞNG ĐẾN QUYẾT ĐỊNH CHỌN TRƯỜNG

37. Hãy đánh giá mức độ quan trọng của mỗi yếu tố sau đây đến quyết định chọn trường đại học của bạn.

(khoanh tròn vào số tương ứng từ 1 đến 4)

Quan trọng    Rất quan trọng

Danh tiếng của trường đại học. 1 2 3 4
Danh tiếng của bằng cấp, ngành học lựa chọn. 1 2 3 4
Thứ hạng của trường đại học trong các bảng xếp hạng chính thức. 1 2 3 4
Hình ảnh trước công chúng của trường đại học về mọi mặt. 1 2 3 4
Khả năng tìm việc làm sau khi tốt nghiệp. 1 2 3 4
Khả năng tìm việc làm thời gian hoặc thực tập trong giai đoạn sinh viên.
Mối liên kết giữa trường đại học với các công ty tuyển dụng. 1 2 3 4
Ngành học rộng và đa dạng, nhiều lựa chọn. 1 2 3 4

230
Chương trình, nội dung môn học. | 1 | 2 | 3 | 4
---|---|---|---|---
Chất lượng giảng dạy. | 1 | 2 | 3 | 4
Độ khó của các môn học hoặc cả chương trình, khả năng tốt nghiệp. | 1 | 2 | 3 | 4
Chất lượng chuyên môn của đối ngũ giảng dạy. | 1 | 2 | 3 | 4
Loại hình trường đại học (công/tư, mới/cũ). | 1 | 2 | 3 | 4
Quá trình đăng ký và xét tuyển. | 1 | 2 | 3 | 4
Diễn biến, yếu cầu đầu vào, mức độ cạnh tranh để được tuyển. | 1 | 2 | 3 | 4
Cơ sở vật chất. | 1 | 2 | 3 | 4
Đời sống, hoạt động sinh viên. | 1 | 2 | 3 | 4
Địa điểm thuận tiện. | 1 | 2 | 3 | 4
Học phí và chi phí sinh hoạt. | 1 | 2 | 3 | 4
Khả năng có học bổng. | 1 | 2 | 3 | 4
Khả năng nhập cư (nếu bạn học ở địa phương khác hoặc nước ngoài). | 1 | 2 | 3 | 4

38. Yếu tố nào sau đây đã được đề cập đến trong các lần trao đổi (tiếp nhận) thông tin truyền miệng về việc lựa chọn trường đại học (có thể chọn nhiều yếu tố)? (có thể khoanh tròn nhiều câu trả lời phù hợp)

22. Danh tiếng của trường đại học.
23. Danh tiếng của bằng cấp, ngành học lựa chọn.
24. Thức hạng của trường đại học trong các bảng xếp hạng chính thức.
25. Hành ảnh trước công chúng của trường đại học ở mọi mặt.
27. Khả năng tìm việc bán thời gian hoặc thực tập trong giai đoạn sinh viên.
28. Mối liên kết giữa trường đại học với các công ty tuyển dụng.
29. Ngành học rộng và đa dạng, nhiều lựa chọn.
30. Chương trình, nội dung môn học.
31. Chất lượng giảng dạy.
32. Độ khó của các môn học hoặc cả chương trình, khả năng tốt nghiệp.
33. Chất lượng chuyên môn của đối ngũ giảng dạy.
34. Loại hình trường đại học (công/tư, mới/cũ).
35. Quá trình đăng ký và xét tuyển.
36. Diện chuẩn, yếu cầu đầu vào, mức độ cạnh tranh để được tuyển.
37. Cơ sở vật chất.
38. Đời sống, hoạt động sinh viên.
39. Địa điểm thuận tiện.
40. Học phí và chi phí sinh hoạt.
41. Khả năng có học bổng.
42. Khả năng nhập cư (nếu bạn học ở địa phương khác hoặc nước ngoài).

39. Viết chọn trường đại học này quan trọng thế nào đối với bạn?

(khoanh tròn vào số tương ứng từ 1 đến 7) ⇒

<table>
<thead>
<tr>
<th>Hoàn toàn đồng ý</th>
<th>⇒</th>
<th>Hoàn toàn đồng ý</th>
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<tr>
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<td>2</td>
</tr>
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<td>Tầm bảng đại học rất có giá trị với tôi.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Giáo dục đại học rất có ích đối với tôi.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Tới cảm thấy rất hứng thú và hứng thú trong quá trình lựa chọn trường đại học.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Được học đại học là điều tôi muốn.</td>
<td>1</td>
<td>2</td>
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</tbody>
</table>
## PHẦN 5: THÔNG TIN CÁ NHÂN

40. Giới tính của bạn? (kohoanh tròn lựa chọn tương  ứng)
   - 3. Nữ
   - 4. Nam

41. Tuổi của bạn? (khoanh tròn lựa chọn tương ứng)
   - 5. 16 hoặc nhỏ hơn
   - 6. 17
   - 7. 18
   - 8. 19 hoặc lớn hơn

42. Ngành học nào bạn dự định lựa chọn? (khoanh tròn lựa chọn tương ứng)
   - 10. Kiến trúc và Thiết kế
   - 11. Nghệ thuật
   - 12. Kinh doanh và Kinh tế
   - 13. Giáo dục
   - 14. Kỹ thuật
   - 15. Luật, Khoa học xã hội
   - 16. Y dược
   - 17. Khoa học Tự nhiên
   - 18. Khác

43. Bạn có anh chị đang học hoặc đã tốt nghiệp đại học, cao đẳng? (khoanh tròn lựa chọn tương ứng)
   - 3. Có
   - 4. Không

44. Bằng cấp cao nhất của cha mẹ bạn là (khoanh tròn vào số tương ứng từ 1 đến 6) →

<table>
<thead>
<tr>
<th></th>
<th>Hoàn thành tiểu học</th>
<th>Hoàn thành trung học phổ thông</th>
<th>Cao đẳng, trung học chuyên nghiệp</th>
<th>Bằng đại học</th>
<th>Bằng sau đại học</th>
<th>Không rõ</th>
</tr>
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<tbody>
<tr>
<td>Cha</td>
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<td>2</td>
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<td>4</td>
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<tr>
<td>Mẹ</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

XIN CHÂN THÀNH CÁM ON BẠN ĐÃ HOÀN THÀNH KHẢO SÁT NÀY
Appendix C1: Measurement Model of Paper 2

Chi-square = 770.639 ; df = 302 ; P = .000
; Chi-square/df = 2.552
; GFI = .894 ; TLI = .941 ; CFI = .949
; RMSEA = .055
Appendix C2: SEM Model of Paper 2
Appendix D1: Measurement Model of Paper 3

Chi-square = 791.618; df = 304; P = .000
;Chi-square/df = 2.604
;GFI = .893; TLI = .931; CFI = .941
;RMSEA = .056

Chi-square = 791.618; df = 304; P = .000
;Chi-square/df = 2.604
;GFI = .893; TLI = .931; CFI = .941
;RMSEA = .056
Appendix D2: SEM Model of Paper 3
Appendix E: Screenshot of a Question on Quora

"Is it hard to get into RMIT to study fashion design?"

You dismissed this ad.
The feedback you provide will help us show you more relevant content in the future.
Undo

1 Answer

Samantha Auld, studied Fashion Design at RMIT University
Answered Oct 21

Yes, When I applied in the early 2000s, it was hard. They had hundreds of applicants and accepted less than 100.

My advice is;

1. Prepare a comprehensive folio and include your developmental work. The lecturers who are assessing the applicants want to see your thought process and how you got to your end result. They don't just want to see the beautiful end product. It's about the journey and how you get from your mood board to a wearable garment.

2. Understand and be able to articulate why you want to study fashion, which designers influence you and what you want to do with your qualification.

Good luck!

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Related Questions

- How is the RMIT?
- Why should I study fashion design?
- What is the best way to begin learning about fashion, trends, and fashion designers?
- What's the design process of a fashion designer? Coming from a computer background, what would be the equivalent of the design phase?
- Is RMIT good for studying accounting?
- Can I study Fashion Design in English in Korea?
- What should I do to become a fashion designer?
- What country is the best for studying fashion design?
- What is the difference between a fashion designer and a textile designer?
- Is fashion good in RMIT?

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