

**SOCIAL MEDIA ENGAGEMENT BEHAVIOUR:
A USES AND GRATIFICATIONS PERSPECTIVE**

A thesis submitted in fulfilment
of the requirement for the degree of

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By

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Abstract

The proliferation of social media platforms in recent years has precipitated a paradigm shift among consumers, as they become more proactive in their direct interactions with brands. Practitioners recognise the value of these interactions, and are endeavouring to build engagement through their social media content. However, despite recent research in this field, theoretically-based academic guidance on a strategic approach to developing engagement in new-media social networks remains limited. In addition, while the Uses and Gratifications theoretical perspective has long claimed that media users are motivated by a need to engage with content, it is unclear whether this perspective can explain the engagement of customers in a social media context.

This dissertation aims to advance existing knowledge on social media content types by examining the effect of informational, entertaining, remunerative and relational content on the engagement behaviour of social media users. A social media engagement behaviour (SMEB) construct is developed to provide a richer understanding of the nature of engagement behaviour in this context. This construct includes six discrete levels of behavioural intensity that recognise the positively- and negatively-valenced nature of engagement behaviour.

This study used *Facebook Insights* and *NCapture* to extract data from Facebook to provide insight into the actual behaviours of consumers using social media, rather than relying on self-reported data to examine the proposed hypotheses. Social media data was collected from twelve Australian wine brands, yielding a total of 2,236 social media posts. Quantitative content analysis (QCA), binary logistic regression, and Process moderation analysis were used to analyse the set of data and establish the significance of the hypothesised relationships.

The results show that the four social media content types have distinct and independent effects on SMEB, demonstrating the need to consider each individually. Supported by the notion of information overload, the results demonstrate that for each type of content, the positive relationship with SMEB only exists at lower levels of each content type. This demonstrates that the amount of content is an important consideration impacting on the resultant engagement behaviour. Minimal interaction effects among content types were found, which suggests that there is little benefit in designing social media content that attempts to simultaneously appeal to users' needs for information, entertainment, remuneration and relational interaction. The results also showed significant moderating effects of media richness, community size, and congruity of the social media content, which affect the relationships with SMEB.

This study contributes to our knowledge of engagement by exploring online engagement behaviour in greater depth and integrating specific levels and valence of behaviour into a singular construct. It extends the utility of Uses and Gratifications Theory in engagement research, demonstrating how this theory can be evolved to explore emerging media such as social networking sites. The study supports the need for the strategic design of social media content in business by linking specific types of content to different aspects of SMEB. In doing so, it provides guidance to managers on delivering social media content to enhance engagement among social media users.

Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree. I give consent to this copy of my thesis when deposited in the University Library being made available for loan and photocopying, subject to the provisions of the Copyright Act 1968.

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Date: 23rd December, 2015

Publications

The following publications are based upon the research presented in this thesis, and may contain results and materials presented herein.

Dolan, R., Conduit, J., Fahy, J., and Goodman, S. (forthcoming) “Social Media Engagement Behaviour: A Uses and Gratifications Perspective” *Journal of Strategic Marketing*.

Dolan, R., Conduit, J., and Fahy, J. (forthcoming) “Social Media Engagement: A Construct of Positively and Negatively Valenced Engagement Behaviours” in R. Brodie, L.Hollebeek and J.Conduit, (Eds.) *Customer Engagement: Contemporary Issues and Challenges*. Routledge.

Dolan, R., Conduit, J., Fahy, J., and Goodman, S. (forthcoming) “Big Social Data and Social Media Analytics: Tools for exploring Social Media Engagement Behaviour” *Australian and New Zealand Marketing Academy Conference*, Sydney Australia.

Dolan, R., Conduit, J., Goodman, S., and Fahy, J (forthcoming) “Facebook for Wine Brands: An Analysis of Strategies for Facebook Posts and User Engagement Actions” *Academy of Wine Business Research Conference*, Adelaide Australia.

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Key Terms, Definitions and Abbreviations

The definitions of selected terms are listed to provide clarity and to set certain terminologies for the context in which they were utilised in this thesis;

Uses and Gratifications Theory (UGT): An approach to understanding why and how people actively seek out specific media to satisfy specific needs. UGT is an audience-centred approach to understanding mass communication. It assumes that audience members are not passive consumers of media. Rather, the audience participants have power over their media consumption and assume an active role in interpreting and integrating media into their own lives (Severin & Tankard, 1997).

Social Networking Sites (SNS): Web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system (Boyd and Ellison, 2008, p. 210).

Social Media Content: Social media content in this thesis refers to the content of posts to users, made by brands via Facebook. This content is categorised into four types: informational, entertaining, remunerative and relational.

Customer Engagement Behaviour (CEB): defined as “a customer’s behavioural manifestations that have a brand or firm focus, beyond purchase” (van Doorn et al., 2010 p.254).

Social Media Engagement Behaviour (SMEB): Social media engagement behaviours go beyond transactions, and may be specifically defined as a customer’s behavioural manifestations that have a social media focus, beyond purchase, resulting from motivational drivers.

Positively-Valenced Social Media Engagement Behaviour: is reflected in favourable or affirmative user behaviours. This thesis categorises three positively-valenced social media engagement behaviours: consuming, contributing and creating.

Negatively-Valenced Social Media Engagement Behaviour: Negatively-valenced engagement behaviour is exhibited through unfavourable behaviours directed towards the brand (Hollebeek and Chen, 2014). This thesis categorises two negatively-valenced engagement behaviours in the social media context: detaching and destructing.

Creating SMEB: Users engage with brands and other users by creating positively-valenced content on social media platforms. Creating epitomises a highly active level of SMEB. Creating users exhibit specific creating behaviours of knowledge seeking, sharing experiences, advocating, socialising, co-developing and affirming.

Contributing SMEB: Users contribute to existing content in social media platforms. Contributing users exhibit a moderate level of positively-valenced SMEB.

Consuming SMEB: Users passively consume content without any form of active reciprocation or contribution. Consuming users demonstrate a minimum level of positive, passive SMEB.

Dormant SMEB: A temporary state of inactive, passive engagement by users who may have previously interacted with the focal brand.

Detaching SMEB: Users take action to remove content of the brand appearing in their news-feed or equivalent home page. Detaching users exhibit a moderate level of negatively-valenced SMEB.

Destructing SMEB: Negative, active contributions to existing content on social media platforms are created by destructive users. Destructive users represent a highest level of negatively-active SMEB.

Facebook Insights: Facebook Insights is a tool provided to administrators of Facebook brand pages to enable high-level monitoring of the activities on the Facebook page. Facebook Insights allows administrators to download data concerning the performance of a social media post.

NCapture: NCapture is a web browser extension developed by QSR International. It allows researchers to quickly and easily capture content including web pages, online PDF's and social media for analysis within NVivo 10.

Quantitative Content Analysis (QCA): This research follows Neuendorf's (2002) approach to quantitative content analysis (QCA), suitable for this study due to its focus on summarising the quantitative analysis of messages. Content analysis is most commonly defined as a research technique for the objective, systematic and quantitative description of the manifest content of communication (Berelson, 1952).

CHAPTER 1. Introduction

1.1 Background to the Research

The focus of this thesis is to investigate and explain the role of social media content in facilitating engagement behaviours within social media platforms. In doing so, it contributes a deeper recognition of the nature and dynamics of engagement behaviour specifically in a social media context. It explores both positively-valenced social media engagement behaviour (SMEB) and distinguishes this from neutral and negatively-valenced SMEB. It examines the role of social media content in the form of informational, entertaining, remunerative and relational posts to achieve these types of engagement behaviour. The four categories of social media content which facilitate expressions of SMEB are derived from the underpinning perspective of Uses and Gratifications Theory (Katz & Foulkes, 1962). This theory suggests that individuals are motivated to engage with media by their needs for information, entertainment, economic incentive or reward and a need for social and relational interaction.

1.2 Research Problem and Objectives

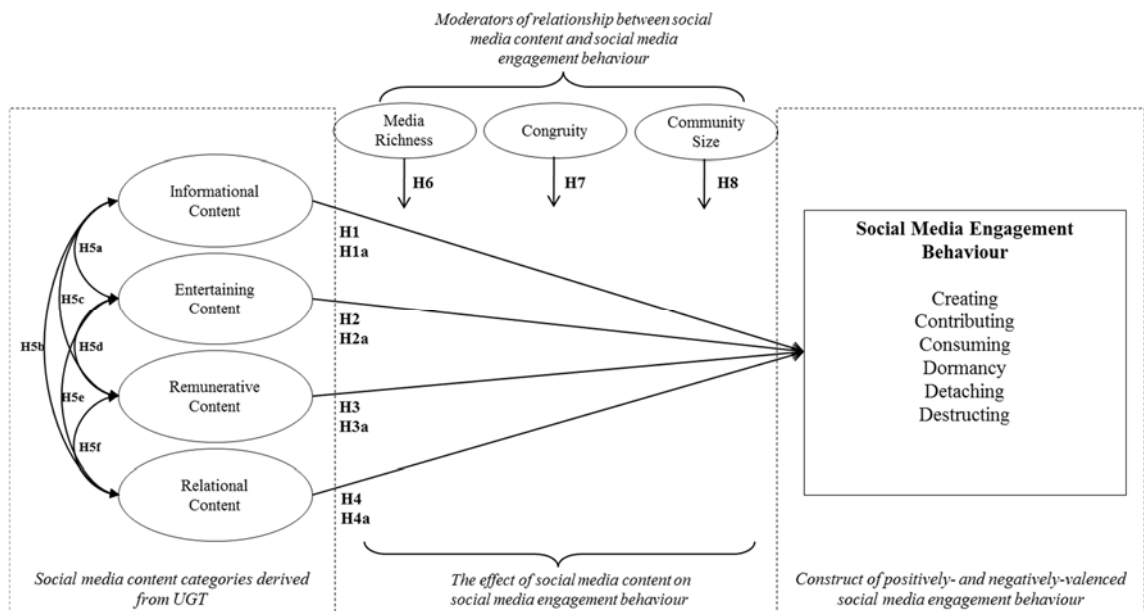
The aim of the research is to investigate how uses and gratifications theory (UGT) contributes to the knowledge and understanding of the influence of social media content on SMEB. Specifically, the research characterises a new construct of positively- and negatively-valenced SMEB. This construct is the dependent variable of the study and is measured through quantitative analysis of SMEB derived from Facebook data. The independent variables include social media content categories, underpinned by UGT, defined as informational content, entertaining content, remunerative content, and relational content.

The specific objectives of this research are:

1. To gain a deeper understanding of social media content categories through the application of the UGT perspective.
2. To offer new insights into the characteristics, levels and valence of social media engagement behaviour.
3. To determine the impact of social media content (categorised as informational, entertaining, remunerative and relational) on social media engagement behaviour.

The conceptual framework presented in Figure 1.1 highlights these research objectives and presents them together to depict their interrelationships. A detailed explanation and theoretical justification for these variables is provided in Chapter 4, Conceptual Model Development.

Figure 1.1 Conceptual Framework



Social media content includes four categories; informational, entertaining, remunerative and relational content. These social media content categories are derived from the underpinning theoretical foundations of UGT. They are the proposed drivers or antecedents of SMEB as depicted in Figure 1.1. The underpinning UGT perspective is discussed in Chapter 2, Section 2.3, leading to the identification of the four categories of social media content.

The SMEB construct is the outcome variable which identifies and explicates the different types of engagement behaviour that users exhibit in social media platforms. It demonstrates that SMEB consists of six distinct types; *creating, contributing, consuming, dormancy, detaching and destructing*. While creating, contributing and destructing represent active engagement behaviours that potentially impact on other social media users, *consuming, dormancy and detachment* are more passive and/or individualised forms of engagement. The SMEB construct also recognises that SMEB may be positively- or negatively-valenced in nature.

The relationship between social media content and SMEB is supported by the UGT perspective. UGT provides a framework through which the motivations of individuals seeking a specific type of media can be further understood. In a social media context, users are not passive in their media selection or their use of specific media. Social media is constructed to enable customer interaction and engagement. Therefore, it is imperative to expand the application of UGT to determine the engagement behaviour that results from the selection of and interaction with different types of social media content. It is proposed that social media content which satisfies the needs for information, entertainment, remuneration and relational interaction will facilitate the way in which consumers choose to engage with brands and other network users within

social media sites.

There are three proposed moderating variables in the conceptual framework: media richness, congruity of the content and community size. Each is briefly defined and further explicated within Chapter 4: Conceptual Model Development.

Media Richness relates to the richness of the social media content measured as low, medium or high, and is hypothesised to partly moderate the relationship between social media content and SMEB.

Community size refers to the size of the social media community, measured by the total number of Facebook page likes at the time of the data collection. The size of the community is hypothesised to partly moderate the relationship between social media content and SMEB.

Congruity of the social media content relates to the extent to which the content is related to the focal brand. Measured as low, medium or high congruity, this variable is hypothesised to partly moderate the relationship between social media content and SMEB.

1.3 Justification for the Research

The emergence of social media platforms and increasing customer adoption of these platforms has precipitated a paradigm shift, significantly altering the way customers communicate and interact with each other and with brands. There are more than one billion members of Facebook, and Twitter now has more than 280 million monthly active users (Stieglitz, Dang-Xuan, Bruns, & Neuberger, 2014). The interactive properties of social media have transformed consumers from passive observers of

content to active participants who create vast quantities of user generated content through their conversations, interactions and behaviours online.

Central to this paradigm shift is the concept of customer engagement, which recognises that customers can co-create value, co-create strategy and collaborate in the firm's innovation process (Bijmolt, Leeflang, Block, Eisenbeiss, Hardie, Lemmens, & Saffert, 2010). Business environments have therefore become more dynamic and interactive, with customers seeking participation and engagement with unique offerings and activities of the organisation (Vivek, Beatty, & Morgan, 2012). With the growing prevalence of social media there has been an emergent focus from both academics and practitioners on the concept of engagement in social media platforms (Brodie, Ilic, Juric, & Hollebeek, 2013). Social media platforms provide users with an interactive avenue to create value and engage with the firm (Brodie et al., 2013; Gummerus, Liljander, Weman, & Pihlström, 2012).

Social media has become a mainstream media platform that connects one-third of the world's population (Nelson-Field & Taylor, 2012). It offers advertisers access to eighty per cent of global consumer expenditures, a \$29 trillion market (Nuttney, 2010). Over 15 million brands globally are registered with the social media site, Facebook (Koetsier, 2013). Customers are inundated with a proliferation of messages and marketers will not succeed in their efforts without an understanding of how to effectively engineer their content to facilitate customer engagement (Lee, Hosanagar, & Nair, 2013). Practitioners have largely been at the forefront of efforts to advise businesses on their social media strategy. Whilst the list of guidelines and strategies for social media marketing efforts appears endless, academic research and empirical evidence in the area remains scarce.

The notion of engagement has been studied in many fields, including psychology (Hallberg & Schaufeli, 2006), education (Baron & Corbin, 2012) and management (Saks, 2006). A recent focus in marketing has centred on customer engagement with a brand (Hollebeek, 2011b; van Doorn, Lemon, Mittal, Nass, Pick, Pirner, & Verhoef, 2010). Customers engage with a firm or brand through multiple touch-points and service encounters. Examples of this engagement include interactions with staff, use of products, physical retail spaces, social media pages and other forms of communication. Previous authors recognise that there are various focal objects of customer engagement including product or service offerings (Brodie, Hollebeek, Jurić, & Ilić, 2011), activities and events (Vivek et al., 2012), and media (Calder, Malthouse, & Schaedel, 2009).

Together these interactions constitute the brand experience of the customer.

Engagement is interactive and therefore context-dependent and can only be properly understood through an examination of each of these service experiences (Brodie et al., 2011; Calder et al., 2009; Gummerus et al., 2012).

This thesis explores the behavioural manifestation of the engagement concept, consistent with previous studies of engagement and social media (e.g. Gummerus et al., 2012, van Doorn et al., 2010). Customer engagement behaviour is defined in this thesis as *“a customer’s behavioural manifestations that have a brand or firm focus, beyond purchase”* (van Doorn et al., 2010 p.254). Customer engagement behaviour involves customers’ voluntary resource contributions that have a brand or firm focus, but go beyond what is fundamental to transactions. These contributions occur in interaction between the focal engagement object and/or other actors and result from motivational drivers (Jaakkola & Alexander, 2014).

While recent research has explored both the antecedents and consequences of customer engagement (Gambetti, Graffigna, & Biraghi, 2012; van Doorn et al., 2010), studies that consider engagement with social media are only beginning to emerge. There is a need to develop a theoretical understanding of the nature of engagement behaviour in response to marketing practices within a social network structure (Sashi, 2012). This thesis explains the role of social media content in facilitating engagement behaviours within social media platforms. It contributes a deeper recognition of the nature and dynamics facilitating engagement behaviour within social media platforms. The conceptual model presented in Chapter 4 explores the processes for stimulating positively-valenced SMEB and/or dissuading neutral and negatively-valenced SMEB through the use of social media content. As such, it addresses one of the challenges in the implementation of organisational tactics and strategies centred on the increasing role of customers, and focuses on an MSI (2014) key topic of interest. Specifically, the MSI (2014) advocates research on customer behaviours in multi-media environments; the role of social media within customer experiences; the conceptualisation, definition and measurement of engagement; and how social media marketing activities create customer engagement (MSI, 2014).

This thesis provides an examination of SMEB, which focuses attention on a singular touch-point in the service experience. It therefore does not reflect customer brand engagement in its entirety, but rather a singular component of that engagement.

Consistent with calls from previous researchers (Brodie et al., 2011; Vivek et al., 2012), it is argued that this in-depth examination within a context-specific environment (e.g. social media) will provide greater insight into the behavioural manifestations of engagement.

The rise of social media sites has also provided a new trail of data detailing customer interactions and conversations for businesses and academics to explore and understand. This thesis takes advantage of this emergence through its use of behavioural data derived from the social media platform, Facebook. Access to social media data is said to have disrupted traditional approaches to customer relationship management, causing a need for organisations to consider how to build insights from the large quantities of data made available by social media (Manovich, 2011). Effectively using this data enables companies to derive valuable insights about their customers (Malthouse, Haenlein, Skiera, Wege, & Zhang, 2013). Through understanding this form of data, managers can measure and hence know radically more about their businesses and directly translate that knowledge into improved decision making and performance (McAfee, Brynjolfsson, Davenport, Patil, & Barton, 2012). However, within social media many companies are unable to identify which activities attract and engage customers (Malthouse et al., 2013). The major challenge for marketing practitioners and academics is how to extract insights from these large quantities of data, and how to incorporate them into models of customer engagement and social customer relationship management (Bijmolt et al., 2010). In this thesis, this challenge is addressed by demonstrating how this data can be effectively accessed and analysed in order to provide an enhanced understanding of engagement.

1.4 Research Context

The context of this thesis is the social media presence of the Australian wine industry. The Australian wine industry has grown at a phenomenal rate, with 2,573 wine producers listed in 2014, compared to just 344 in 1983 (Winebiz, 2014). Considering the high levels of competition within the Australian wine industry, it is not surprising

that many brands are seeking new and innovative ways to communicate with consumers. Social media sites such as Facebook have become an increasingly popular customer touch point, with the viral and social capabilities of these online networks creating a new forum for customer interaction with wine brands (Barber, Dodd, & Ghiselli, 2008; Bulearca & Bulearca, 2010; Keller, 2009). Wine is an experiential product (Bruwer & Alant, 2009), and as Australian wine brands compete to attract and retain consumers, many are embracing social media to reach their consumers and communicate their brand experience, quality and personality (Vinography, 2012).

Marketing practitioners within the wine industry have been quick to recognise the value of social media platforms, rapidly integrating such platforms into the marketing mix (Bergen, 2014; Sinclair, 2014; Stelzner, 2014). There are currently more than 2,500 Australian and New Zealand wineries with a presence on Facebook (Mastermind, 2015). However, many practitioners have identified a lack of awareness and knowledge regarding effective social media strategy, creating a significant challenge as practitioners navigate through this forum with little guidance and empirical understanding (Stelzner, 2014). This study empirically explores how practitioners can strategically design and engineer their social media content in order to facilitate engagement amongst users.

Research has suggested that 90 percent of wine drinkers use Facebook for at least 6.2 hours per week (Breslin, 2013). Some wine brands have achieved success through social media, with documented examples demonstrating that small and large wineries have achieved a positive return on investment through the implementation of successful social media strategies. For example, Pacific Rim Winery in the United States increased their website traffic by 7000% and achieved a 15% increase in revenue, with a 73%

increase in transactions (Moore, 2012). Several scholarly studies have explored social media practices within the wine industry. Of wineries studied in Australia, Canada, New Zealand, Spain, Italy, South Africa and the US, 35% have reported using social media, with the primary reasons of communicating with customers about events at the winery, and promoting wines (Alonso, Bressan, O'Shea, & Krajsic, 2013). Scholars have also suggested that social media assists with wine sales as word of mouth is particularly effective amongst wine consumers (Leigon, 2011), with the socialisation aspect of social media acting as an appropriate fit with wine, allowing consumers to exchange information and encourage others to try different wines (Wilson & Quinton, 2012). However, the wine industry context has received little attention in the customer engagement literature (Hollebeek & Brodie, 2009).

1.5 Research Method

This section provides a brief overview of the research method adopted in this thesis. A detailed description and justification of the procedures is provided in Chapter 5.

A quantitative research approach is adopted in this thesis to investigate the relationships between the theoretically developed constructs of social media content and SMEB. The data used for the study was derived from the social media pages of Australian wine brands. The data was collected by using Facebook Insights and NCapture. Social media data was collected for a 12 month period. In total, 2,236 Facebook posts were collected from the 1st of January, 2013 to the 31st of December, 2013. Social media content was analysed using the process of quantitative content analysis (QCA) defined by Neuendorf (2002). Following the process of QCA which categorised the 2,236 Facebook posts according to their level of informational, entertaining, remunerative and relational content, data analysis was conducted using SPSS v22. Binary logistic regression was

used to test the impact of social media content on SMEB. Hayes (2013) PROCESS computational tool for path-based moderation was used to assess the moderating impact of media richness, community size and congruity of the content on the relationship between social media content and SMEB.

1.6 Delimitation and Scope of the Thesis

The scope of this thesis is limited to social media content and SMEB in the Australian wine industry. The findings and implications of this research are relevant to similar industry contexts, particularly those in which the product category may also be hedonic. Further research is suggested in Chapter 7 which would explicate the relationship between social media content and SMEB in unrelated contexts. Further examination of the relationships among the key constructs is recommended in various industry settings, in addition to studies across various social media platforms.

A three dimensional perspective of customer engagement has been widely accepted in recent literature (Brodie et al., 2011; Hollebeek, 2011b) concerning the conceptualisation and definition of what constitutes engagement. This perspective includes recognition of the cognitive, emotional and behavioural dimensions of engagement. Within this thesis, the focus is on one dimension of engagement: behaviour. An inclusion of the cognitive and emotional aspects of engagement experienced by social media users would provide a more comprehensive insight into social media engagement.

A broader study, encapsulating individual user characteristics by way of a survey would allow a greater investigation of the various factors which may also influence SMEB. By extending the scope of the study, further antecedents to engagement, beyond social

media content may be identified. These antecedents are discussed in Chapter 2, and include factors such as identification (Nambisan & Baron, 2007; Tsai, Huang, & Chiu, 2012), identity (Eisenbeiss, Blechschmidt, Backhaus, & Freund, 2012; van Doorn et al., 2010), hedonism (Gambetti et al., 2012; Nambisan & Baron, 2007), interaction, rapport (Hollebeek, 2011b), satisfaction (van Doorn et al., 2010) and trust (Bowden, 2009).

This thesis does not capture the extent to which these antecedents impact on SMEB.

SMEB is predicted in this thesis as a result of social media content. SMEB is shown to vary in intensity as well as the extent to which it is positively- or negatively-valenced.

The examination provides a cross-sectional analysis of the resultant effects of social media content on SMEB at one point in time. This thesis does not address the dynamic nature of the levels of engagement behaviour in the SMEB construct. Analysis of user progression through or within the six typologies is not considered. Engagement that may occur in a cyclical form with reciprocal effects between antecedents and consequences present (Fehrer, Woratschek, & Germelmann, 2013; Hollebeek, Glynn, & Brodie, 2014) was not analysed in this thesis.

In the next section, the outline of the thesis is presented, including the key topics addressed within each chapter.

1.7 Outline of the Thesis

The structure of this thesis is comprised of seven chapters.

CHAPTER 2 provides a review of the literature regarding social media, UGT and customer engagement. The emergence of social media and specific social networking sites is discussed. UGT is reviewed as an appropriate theoretical foundation of this thesis. The theory supports the notion of users' active selection and engagement with

specific focal objects, including social media content. The theoretical foundations of customer engagement are discussed, including the importance of S-D logic and relationship marketing. Recent conceptualisations of engagement are discussed, in addition to a provision of the important distinction of engagement from its related concepts, antecedents and consequences. This leads to a discussion of the dimensions of customer engagement, with a specific focus on the behavioural dimension of customer engagement.

CHAPTER 3 describes the SMEB construct developed by following the literature on customer engagement behaviour and social media. This chapter provides an overview of the importance of considering both the intensity and valence of engagement behaviour in a social media setting. This leads to the development of six distinct SMEBs; creating, contributing, consuming, dormancy, detaching and destructing.

CHAPTER 4 presents the conceptual model of the thesis, outlining the specific hypothesised relationships between social media content and SMEB. These relationships are underpinned by UGT.

CHAPTER 5 describes the research design used to identify and examine the relationships between the key constructs. This chapter provides the philosophical stance of the researcher, leading to the adoption of a quantitative approach to research. Quantitative content analysis (QCA) is defined as an appropriate method within this thesis, including a detailed overview of the QCA process and the descriptive results resulting from the QCA. A discussion of the moderating variables is provided. The processes for hypothesis testing including binary logistic regression and Hayes (2013) moderation analysis are presented.

CHAPTER 6 addresses the main hypotheses of this thesis and presents the results.

Social media content is examined with reference to its impact on SMEB. Binary logistic regression investigates the influence of the presence and level of social media content type, informational, entertaining, remunerative and relational, on SMEB. The chapter also demonstrates the moderating effects of community size, media richness and congruity on the relationship between social media content and SMEB.

CHAPTER 7 integrates the key findings of the study with the relevant literature addressed in Chapter 2. The discussion of the key findings leads an analysis of the important contributions of the research. The managerial implications are discussed. The chapter concludes with identifications of the limitations of the thesis, directions for future research and concluding thoughts.

1.8 Chapter Summary

This chapter set out the foundations for this thesis. The background of the research was introduced, leading to the identification of the research problem and objectives. The justification of the research was provided; the research context and method were briefly discussed. The delimitation and scope of the thesis were provided. The structure of the thesis was provided. In the next chapter, the relevant literature concerning social media, UGT and customer engagement is reviewed. This leads to the development of a new construct of social media engagement behaviour which is presented in Chapter 3.

CHAPTER 2. Literature Review

2.1 Introduction

This chapter begins with a review of the literature on social media and social networking sites. This is followed by a discussion on the theoretical perspective of UGT applied to user motivations for social media engagement. Relevant literature concerning customer engagement theoretical foundations, conceptualisation, related concepts, antecedents, consequences, and dimensions is then outlined. This leads to a focused discussion on customer engagement behaviour, and its examination in a social media context.

2.2 Social Media

The advent of social media has facilitated a fusion between sociology and technology, shifting communication between individuals and firms from a monologue of one to many, into a dialogue of many to many. As a result, social media have radically altered the way individuals communicate, interact and manage relationships (Shirky, 2009). Correspondingly, the lines of division between content providers and consumers have begun to diminish (Giurgiu & Barsan, 2008).

The rise of social media channels in the past decade has enabled new forms of customer/firm interaction. The role of social media within marketing has rapidly developed in recent years, attracting interest in both academic and non-academic literature. Social media has given consumers a rise in power, flexibility and visibility regarding marketing content, changing the way individuals and organisations interact. As a result, customers have transformed from passive receivers of marketing content to active participants in the brand message (Mangold & Faulds, 2009). Interactive

customer experiences through social media act as a significant influencing factor of many consumer behaviour aspects, including information acquisition, purchase behaviour and post-purchase communication (Mangold & Faulds, 2009).

Organisations are increasingly recognising and utilising this opportunity, with more than 15 million brands registered with the social media site Facebook (Koetsier, 2013). As businesses seek to communicate with customers through the social medium more effectively, it offers a significant research area for scholars to better anticipate and understand customer engagement in online social groups and subsequent brand-related behaviours (Pagani, Hofacker, & Goldsmith, 2011; Pelling & White, 2009).

Despite significant academic and practitioner interest in the field of social media in recent years, a lack of clarity remains evident regarding the precise definition of social media, as discussed in the following section.

2.2.1 Social Media Definitions

The emergence of social media has powered many attempts to develop a definition of the social media domain within the marketing literature. The term social media is a construct derived from two underlying areas of research: communication science and sociology (Peters, Chen, Kaplan, Ognibeni, & Pauwels, 2013). From the communication science perspective, social media are a means for storing and delivering information and data. Comparatively, from the perspective of sociology, social media are viewed as social structures made up of a set of social actors linked by a complex set of dynamic ties (Peters et al., 2013). Combining both perspectives, social media can be described as “*communication systems that allow their social actors to communicate through multiple dyadic ties*” (Peters et al., 2013, p.282). Hence, in contrast to

traditional and other online media, social media are more egalitarian in nature. Unlike traditional media platforms, social media resemble dynamic, interconnected, egalitarian, and interactive organisms beyond the control of any organisation (Peters et al., 2013).

Rapid emerging technologies and communication forms alter the processes and capabilities of social media, causing difficulty in its precise definition (Tuten, 2008).

Despite the lack of clarity in defining social media, most scholars agree that social media is founded on participation and engagement (Mayfield, 2008). Participation within social media occurs through the provision, sharing and discussion of user generated content, through highly interactive mobile and web-based technology. This concept lies at the centre of most attempts to define social media, and often definitions incorporate a range of activities undertaken by the users of the social media page. To illustrate, social media can be broadly defined as any “*internet based applications that help consumers share opinions, insights, experiences and perspectives*” (Kaplan and Haenlein, 2010, p. 565). Similarly, social media can be characterised as platforms in which users have the ability to create, initiate, circulate and use online information (Blackshaw & Nazzaro, 2006). Authors have made distinctions as to what social media is not, sometimes specifying that the term should exclude data creation, data storage and the interpersonal connections established in any application (Kaplan & Haenlein, 2010).

Ryan (2014) recognised the participation and contribution of user generated content in his definition. However he expanded the concept to describe the roles and actions of users, describing social media as

“The umbrella term for web-based software and services that allow individuals to come together online and exchange, discuss, communicate and participate in a form of social interaction. That interaction can encompass text, audio, images, video and other media,

individually or in combination. It can involve the generation of new content; the recommendation of and sharing of existing content; reviewing and rating products, service and brands; discussing the hot topics of the day; pursuing hobbies, interests and passions; sharing experience and expertise” (p.151).

Social media can also be conceptualised in terms of functionality, including networking, socialisation and navigation (Thelwall & Stuart, 2009). Networking involves social media serving as a function for people-finding by supporting non-social interpersonal communication, for example through the platform ‘LinkedIn’. The socialisation function of social media supports the social interaction of members, while the navigation function supports the finding of resources such as blogs, videos and web pages (Thelwall & Stuart, 2009). Brand communities established within social media allow for socialisation and navigation by means of facilitating member to member communication in addition to exchange with the brand and company.

While there are many definitions of social media provided in recent literature, it is important to note that these definitions do not contradict one another, but rather build upon preceding definitions in order to provide a more comprehensive definition and description. For example, Ryan’s (2014) definition extends upon the description of Kaplan and Haenlein (2010) to explain exactly *how* consumers share their opinions, insights, experiences and perspectives.

Social media sites are unique from previous online communities in a range of ways. Social media sites are based largely on one’s existing ‘real-world’ social network structure, despite their ability to form new relationships or further online relationships (Liu, Rau, & Gao, 2010). Previous forms of computer-mediated brand and online communities tended to revolve around communication with strangers in the network.

Additionally, social networking sites mimic offline network structures, through connected individual nodes rather than groups. Social media also offer member profiles allowing visual person-to-person exploration; whereas previous online communities focussed on a given topic, with individuals interacting based on that topic, for example in a chat room forum or blog. A number of specific types of social media have emerged in recent years, outlined in the following section.

2.2.2 Types of Social Media

Social media take on many forms including blogs, business networks, enterprise social networks, microblogs, photo sharing, product/services reviews, social bookmarking, social gaming, social networks, video sharing and virtual worlds (Aichner & Jacob, 2015). Social media can be distinguished by six overarching categories (Kaplan & Haenlein, 2010). Social media can include *collaborative projects* such as Wikipedia. These enable joint and simultaneous creation content, in which the joint effort of many actors leads to a better outcome than any actor could achieve individually (Kaplan & Haenlein, 2010). Social media in the form of *blogs* represent the earliest form of social media, generally defined as websites that display date-stamped entries in reverse chronological order (Kaplan & Haenlein, 2010). The third form of social media is *content communities*, in which the main objective is the sharing of media content between users. Content communities enable sharing of content such as photos (e.g. Flickr), videos (e.g. YouTube) and PowerPoint presentations (e.g. Slideshare). The fourth type of social media defined by Kaplan and Haenlein (2010) is *virtual game worlds*, which replicate a three-dimensional environment, where users develop avatars and interact with each other. Similarly, *virtual social worlds* involve users interacting with avatars in a three dimensional virtual environment. However there are no rules

governing the restriction of possible interactions as observed within virtual game worlds. Finally, *social networking sites* are a form of social media that allow users to create profiles, establish friendship with other users and exchange information.

This research focuses on one type of social media; social networking sites, discussed in the following section.

2.2.3 Social Networking Sites

Social networking sites (SNSs hereafter) are commonly defined as

Web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system (Boyd and Ellison, 2008, p. 210).

Personal profiles established on SNSs include photos, video, audio files and blogs (Kaplan and Haenlein, 2010). Consumers are increasingly becoming more active participants within SNS, through interactive processes comprising multiple feedback loops and highly immediate communication (Brodie et al., 2013). The interactive properties of SNSs have transformed consumers from passive observers to active participants, with SNSs serving as an ideal forums for product and brand-related advocacy (Chu & Kim, 2011; Riegner, 2007), customer-led content generation (Vivek et al., 2012) and customer-created product innovations (Hoyer, Chandy, Dorotic, Krafft, & Singh, 2010; Sawhney, Verona, & Prandelli, 2005). Therefore, there is a significant amount of social and network value provided to both users and organisations through SNSs, as users comment, review and share information online.

SNSs have become a popular topic of academic enquiry, with scholars exploring the

concept from varying perspectives, including usage motivations of participants (Joinson, 2008; Raacke & Bonds-Raacke, 2008), social interactions, usage patterns (Golder, Wilkinson, & Huberman, 2007; Hsu & Lin, 2008; Lampe, Ellison, & Steinfield, 2006) and characteristics of users (Gjoka, Sirivianos, Markopoulou, & Yang, 2008; Hargittai, 2007). Less academic attention has been paid regarding the role of SNSs from a marketing perspective. Practitioners have largely been at the forefront of efforts to advise businesses on the design of their social media content, with an inundation of industry blogs, websites and guides on the best practice for marketing within the social network sphere emerging in recent years (Steeves, 2013). Whilst the list of guidelines and strategies for marketing efforts within SNSs appears endless, academic research and empirical evidence in the area remains scarce. Further, while millions of brands have adopted sites such as Facebook, as discussed in the next section, theoretically grounded academic enquiry guiding marketing and communications strategies in this forum remains limited. This research focuses on one specific social networking site, Facebook, as discussed in the following section.

Facebook

The world's largest SNS, Facebook (Hughes, Rowe, Batey, & Lee, 2012), was originally developed to help students at Harvard University communicate with each other (Krivak, 2008). A decade on, Facebook is the world's most successful social networking company (Hansson, Wrangmo, & Solberg Søylen, 2013). As of April 2015, Facebook had over 1.3 billion monthly active users (Social Bakers, 2015). Registered Facebook users interact with other users through the creation of a user profile, by which the exchange of messages, status updates, photos and videos occurs.

In 2006, organisations were allowed to become active members on Facebook and create

public profiles, resulting in more than 4000 organisations joining within the first two weeks (Waters, Burnett, Lamm, & Lucas, 2009). The practice of marketing communications via Facebook is now a well-functioning concept, with many companies considering Facebook as the most attractive SMS for B2C marketing purposes (Lillevalja, 2010). Over 40 million brands, globally have company pages registered with the social media site (Facebook, 2015).

Millions of companies have created Facebook fan pages, by which consumers receive information from the company. Based on the current definitions from Facebook (Facebook, 2015), the '*like page*' is the official name for all Facebook pages which are not user profile pages. 'Like pages' are for businesses, brands and organisations to share their stories and connect with people. These pages are free public spaces companies can utilise to continually update their consumers about company news, products and events (Facebook, 2015). Within this thesis, these pages are referred to as '*brand profile pages*'. Content shared on brand profile pages is referred to as *posts* and appears on the central part of the page, known as the wall or timeline. Brand profile pages can have one or multiple administrators who are responsible for the creation of content. The brand profile page can have any number of members, referred to in this study as '*users*'.

Within a brand profile page, users can engage with a company in the following four ways (Cvijikj & Michahelles, 2013); Posting content on the wall (dependent on the communication policy set by the company), commenting on an existing post shared by the administrator, indicating interest in an existing post by pressing the 'like' button, referred to as 'liking' and sharing the post on their personal profile wall. Each of these actions results in the generation of a story which appears on the wall and 'news feed' of the user's personal network of friends. In addition to these actions, companies can

utilise functions on their brand profile pages including discussion boards, events, photos, reviews, videos and notes (Smith & Treadaway, 2010). Further, companies can adopt third party applications such as Facebook badges, contests, games, gifts, quizzes and survey polls (Smith & Treadaway, 2010). Introduced in July 2011, *Facebook Page Insights* allows Facebook page administrators to view metrics associated with their posted content. Administrators have access to the Facebook Page Insights dashboard where they can examine their page's success based on user engagement. Within Facebook, user engagement with a page is measured by clicks, shares and likes of page posts (Facebook, 2015).

The increasing popularity of Facebook as a marketing and communication platform has stimulated the interest of scholars, with research investigating user personalities (Ryan & Xenos, 2011), online identity (Hum, Chamberlin, Hambright, Portwood, Schat, & Bevan, 2011), self-disclosure (Park, Jin, & Jin, 2011), uses and motivations (Cheung, Chiu, & Lee, 2011). While SNSs such as Facebook are said to enable interactive consumer experiences which contribute to the development of customer engagement with specific brands (Brodie et al., 2013), the extent to how much and how often this process occurs remains largely unknown. Further, it is unclear whether efforts to stimulate interaction and engagement amongst existing and potential customers on brand pages has a measurable, beneficial influence on the brands they promote (Jahn & Kunz, 2012; Nuttney, 2010).

Despite millions of brands adopting SNSs as a marketing tool, it appears that stimulating customer interaction within these forums is a significant challenge for marketers. Recent studies have indicated that less than five percent of customers engage (defined as commenting, sharing, liking, answering a question, checking-in,

or RSVP'ing to an event) within social media, regardless of the product category (Nelson-Field & Taylor, 2012). As of March, 2015, within Australia, the average Facebook post engagement rate was estimated to be just 0.41 percent (Social Bakers, 2015). Post engagement rate in this context is defined as the average number of interactions per post on a given day, divided by the total number of fans for the page (Social Bakers, 2015). Within the alcohol industry, large brands such as Corona, with over 6 million fans are reaching maximum engagement rates of only 2.05% (Social Bakers, 2015). Such statistics indicate a significant challenge for marketers attempting to increase levels of engagement with their social media pages.

As customers are inundated with a proliferation of messages, it is evident marketers will not succeed in their social media strategy efforts without an understanding of how to effectively engineer their content to facilitate engagement (Lee et al., 2013). The academic community recognises the need and research is advocated on customer behaviours in multi-media environments; the role of social media within customer experiences; the conceptualisation, definition and measurement of engagement; and most pertinently for this research, how social media marketing activities create customer engagement (MSI, 2014). This thesis addresses this need and UGT is discussed in the next section of the literature review as a theoretical foundation through which to consider consumer active choice and use of specific media, such as social media content.

2.3 Uses and Gratifications Theory

UGT is an approach to understanding why and how individuals actively seek out and use specific media to satisfy specific needs (Katz & Foulkes, 1962). UGT emerged in the 1940's when psychologist Herzog (1944) used the term gratifications to describe

specific types or dimensions of satisfaction reported by audience members for daytime radio programs. Subsequently, researchers became interested in why audiences engaged in various forms of media behaviour, such as listening to the radio and reading the newspaper (Wimmer & Dominick, 1994). UGT addresses how individuals deliberately choose media that will satisfy their needs, allowing one to realise gratifications such as knowledge enhancement, entertainment and relaxation, social interaction, reward or remuneration, and personal identity (Calder et al., 2009; Ko, Cho, & Roberts, 2005). UGT was one of the first approaches to consider the active role of the audience in media choice, suggesting that individuals actively search for, identify with, and employ media to fulfil specific gratification needs (Ku, Chu, & Tseng, 2013). UGT therefore posits that individuals have free will in determining their interaction and engagement with media. This perspective constitutes a shift from the traditional mechanistic approach, which suggests that individual media consumers are passive.

Communication theorists and advertisers applied the UGT perspective in the context of various mass media including television and electronic bulletins (Leung & Wei, 2000; O'Keefe & Sulanowski, 1995). The concepts and perspectives of uses and gratifications research are particularly useful in explaining continuing use of a particular medium, such as continued reading, listening or viewing (McGuire, 1974). Swanson (1987) advocated the need to understand the role of message content within uses and gratifications research. This indicated that audience members seek and find different gratifications within media content, affecting consumption of the content. Audience members seek main gratifications from their media consumption, including informational benefits, entertainment, economic or remunerative rewards and social interaction. Entertainment and information gratifications, derived through the content of

television programs contribute to substantial increases in television viewing levels (Rubin, 1983). Within electronic bulletin boards, Rafaeli (1984) found that factual or informative content is skipped least often, with increasing diversity of content significantly and positively related to user contribution levels.

The well-established theoretical perspective of UGT can shed interesting insights on new, interactive mediums including online media. This medium requires a higher level of interactivity from its users, when compared to more traditional forms of media (Ko et al., 2005; Ruggiero, 2000). As the underlying assumption of UGT is that users are actively involved in media usage and highly motivated by their needs in their selection of the communication media, the theory has become increasingly relevant in studies of media channels that allow for consumer choice. Many theorists posit that UGT is a research tradition eminently suited for internet and social media study (Kaye & Johnson, 2003; Ruggiero, 2000), as discussed in the following section.

2.3.1 Internet Uses and Gratifications

Extending from studies of UGT in mass and traditional media, the UGT perspective has been successfully applied to a range of new media studies. Given the inherent interactivity and user-directed nature of internet media, this user-level approach of UGT is well suited for examining consumer internet use (Stafford, Stafford, & Schkade, 2004). In the online context, consumers have significant control over the information they search for and receive, unlike their experience in more traditional mass-marketing communication. Consumers are generally responsible for initiating the flow of communication through their decisions regarding what websites to search for or what communities to join (Stafford & Stafford, 2001). Based on this reasoning, authors posit that the internet is 'intentionally consumed' (Rayburn, 1996) and hence UGT provides

the necessary theoretical framework for understanding the specific reasons that motivate consumers to approach, and engage with online content.

Researchers have examined the psychological and behavioural aspects of internet users in order to identify the appropriate underlying dimensions of internet use motivations (LaRose, Mastro, & Eastin, 2001; Lin, 1999). Items such as social escapism, transactional security and privacy, information seeking, interactive control, socialisation, entertainment and economic motivation have been suggested as key motivations for internet use (Korgaonkar & Wolin, 1999). Further, motivations such as interpersonal utility, pastime, information seeking, convenience and entertainment have been suggested (Papacharissi & Rubin, 2000). The effect of these motivations have been applied to consequences such as interaction on websites, attitude toward websites, attitude towards brands, purchase intention and satisfaction (Ko et al., 2005; Luo, 2002), with consumer motivations significantly altering psychological and behavioural actions of internet users. In addition to internet use, the advent of social media triggered further enquiry of the UGT perspective in order to understand user motives and behaviours within this forum, discussed in the following section.

2.3.2 Social Media Gratifications

Based on UGT, previous studies have used the motivations for using social media to predict users' specific behaviours concerning social media sites (Baek, Holton, Harp, & Yaschur, 2011; Quan-Haase & Young, 2010). Constructs based on the theoretical underpinnings of UGT, such as the need for social interaction, need for entertainment, information seeking and sharing needs, and desire for reward or remuneration have been explored in recent literature investigating consumer choices of online and social media. Table 2.1 provides a summary of this literature.

Table 2.1 Recent Studies with a UGT Perspective Applied to Online Media Use

Motivations	Conceptual Relationships and Outcomes
Entertainment	<p>Individuals share links on Facebook because it is easy and entertaining (Baek et al., 2011).</p> <p>Entertainment needs are a significant predictor of the use of comments among Facebook users (Smock, Ellison, Lampe, & Wohn, 2011).</p> <p>Users with entertainment needs participate in Facebook groups for leisure and amusement (Park, Kee, & Valenzuela, 2009).</p> <p>Persuasive content including emotional and philanthropic content increases engagement on Facebook in the form of likes and shares (Lee et al., 2013).</p> <p>Entertaining content increases customer engagement on Facebook through increasing levels of liking, commenting and sharing, in addition to having a positive effect on interaction duration (Cvijikj & Michahelles, 2011, 2013).</p> <p>Entertainment needs are not significantly linked to attitudes towards social media content because using social media is no longer entertaining to users as it is a common practice in everyday life (Chung & Austria, 2010).</p> <p>Entertainment needs are linked to consuming, contributing to and creating brand-related content in social media (Muntinga, Moorman, & Smit, 2011).</p> <p>Individuals use social media as a source of entertainment through playing games, listening to music and watching videos, in addition to looking for humour and comic relief and to listen to jokes (Whiting & Williams, 2013)</p>
Information Seeking and Sharing	<p>The motivation to share information significantly predicts an individual's frequency of sharing links on Facebook (Baek et al., 2011).</p> <p>Expressive information sharing is a significant predictor of the use of Facebook groups and the use of status updates on Facebook (Smock et al., 2011).</p> <p>Individuals use Facebook groups to satisfy information seeking needs through the acquisition of knowledge regarding products, events and services (Park et al., 2009).</p> <p>Informational content on Facebook such as mentions of prices, availability and product features reduces engagement in the form of likes and comments (Lee et al., 2013).</p> <p>Informational needs are linked to individuals consuming brand-related content in social media (Muntinga et al., 2011)</p> <p>Posts offering brand-related information increase the level of engagement within Facebook through liking and commenting, but do not cause an effect on</p>

Table 2.1 Recent Studies with a UGT Perspective Applied to Online Media Use (Cont.)

	<p>the number of shares, in addition to causing the greatest increase in interaction duration (Cvijikj & Michahelles, 2011, 2013).</p> <p>Social media information gratification has a positive relationship with attitudes towards social media content (Chung & Austria, 2010)</p> <p>Individuals use social media to seek out information about sales, deals, products, events, birthdays, parties and information about businesses (Whiting & Williams, 2013).</p>
Social & Relational Interaction	<p>Interaction gratifications through social media have a positive relationship with attitude towards social media content (Chung & Austria, 2010)</p> <p>Social interaction needs are linked to consumers creating and contributing to social media content (Muntinga et al., 2011)</p> <p>Individuals use social media for social interaction (Whiting & Williams, 2013)</p> <p>Social connection gratifications lead to an increased frequency of use of Facebook (Joinson, 2008)</p> <p>Individuals post links on Facebook as a tool for interacting and socialising with others (Baek et al., 2011)</p> <p>Social interaction needs are a significant predictor of the use of comments, individuals writing on a friends walls, private message use, the use of 'Facebook chat', and the use of Facebook groups (Smock et al., 2011)</p> <p>Individuals participate in Facebook groups to satisfy socialising needs through meeting and talking with others, getting peer support and a sense of community (Park et al., 2009)</p>
Monetary incentives, remuneration or reward	<p>Remuneration needs are linked to individuals consuming brand-related content in social media (Muntinga et al., 2011).</p> <p>Remunerative content has a positive effect on the number of comments within Facebook; however no effect exists over the number of shares in addition to a negative effect over the number of likes. Further, this content type has no effect over the interaction duration of consumers (Cvijikj & Michahelles, 2013)</p>

In social media, a brand's overt goal is to attract an audience by providing value, or gratification, through its content (Malthouse et al., 2013). Content must therefore be designed in a way which creates value for individual consumers to build a stronger level of engagement and facilitate value outcomes (Malthouse et al., 2013). Based on the UGT perspective, this thesis posits that social media content can be categorised into four main groups, based on its level of *information* (Cvijikj & Michahelles, 2013; De Vries, Gensler, & Leeflang, 2012; Ducoffe, 1996), *entertainment* (De Vries et al., 2012; Ducoffe, 1996; Taylor, Lewin, & Strutton, 2011), *remunerative* (Cvijikj & Michahelles, 2013; Lee et al., 2013) and *relational* (Muntinga et al., 2011) content. Each of these categories is examined in detail in the following sections.

Information

The information construct identified by UGT can be defined as the extent to which the web provides users with resourceful and helpful information (Chen, Clifford, & Wells, 2002; Ducoffe, 1995). Attaining various forms of information has been suggested as the most important reason for consumers to use the internet (Maddox, 1998), and levels of information and attitude to the website have been found to be positively related (Chen et al., 2002). Further, the relationship between the ability of an advertisement to provide information to viewers and advertising acceptance has been well documented (Bauer & Greyser, 1968). Advertising value and attitude to advertising have also been found as positive consequences of informative advertising (Ducoffe, 1995, 1996).

Whilst the importance of delivering information through advertisements has been recognised for more traditional media (Rubin, 2002), the role of informational advertising and content in the online social domain has also received attention.

Searching for and receiving information about a brand is one of the main gratifications

of consumer participation in online brand communities (Muntinga et al., 2011; Raacke & Bonds-Raacke, 2008; Ulusu, 2010). The desire to seek information directly from brands is a motivating factor for consumers to continue to use social media sites (Dholakia, Bagozzi, & Pearo, 2004; Lin & Lu, 2011). Content gratifications such as information seeking, knowledge and learning can predict consumers internet use patterns (Stafford et al., 2004), attitudes towards websites and brands, purchase intentions, and interaction behaviours (Ko et al., 2005).

Studies relating to consumer interaction with brands as a result of motives such as information seeking are transferable to the field of customer engagement. Within this perspective, scholars have demonstrated that consumers are motivated by informational needs to engage with a brand on social media. This engagement is most likely to manifest through consumer actions such as clicking on links, staying on websites longer, reading details and threads and using multimedia features (Ko et al., 2005). This form of interaction is referred to as human-message interaction, and denotes passive engagement with the brand, rather than active engagement in the form of commenting and contributing to online brand communities (Ko et al., 2005).

Entertainment

The entertainment construct refers to the extent to which web media content is fun and entertaining to media users (Eighmey & McCord, 1998). UGT research has demonstrated that the value of entertaining media is embedded in its ability to fulfil users' needs for escapism, hedonistic pleasure, aesthetic enjoyment and emotional release (McQuail, 1983). Previous research has suggested that providing a higher entertainment value to users is likely to lead to an advantage for media users, motivating them to use the media more often (Chung & Austria, 2010). Early research which

considered the role of entertaining content on the web discovered that web users who perceive banner advertisements on the web as entertaining tended to have greater brand loyalty to the advertised products and a higher likelihood to purchase (Stern & Zaichowsky, 1991). The concept of entertaining advertising has been discussed extensively in the literature, with empirical evidence demonstrating that entertaining advertisements lead to positive attitudes toward the advertisements (Taylor et al., 2011), positive attitudes toward the brand and a desire to return to the websites (Raney, Arpan, Pashupati, & Brill, 2003).

Through the application of UGT (Katz & Foulkes, 1962) in the context of brand communities and social media, authors have shown that consuming entertaining content is an important factor for participation in brand communities (Dholakia et al., 2004; Raacke & Bonds-Raacke, 2008). The entertainment value of a social networking site can be an important reason for consumers to adopt it (Cheung et al., 2011; Dholakia et al., 2004; Lin & Lu, 2011; Park et al., 2009). Extant studies within the social media context highlighted the importance of entertaining or persuasive content as one of the antecedents to customer engagement behaviour. Entertaining ads are said to lead users to consume, create or contribute to brand-related content online (Muntinga et al., 2011).

Remuneration

In addition to considering whether brand content offers information and entertainment, the level of remuneration offered to the consumers has been studied as a driver of consumer decisions to contribute to online communities (Muntinga et al., 2011).

Consumers may engage in social media use as they expect to gain some kind of reward, such as an economic incentive, job-related benefit or personal wants (Muntinga et al., 2011).

Social Exchange Theory (SET) (Emerson, 1976) posits that virtual interactions need to be rewarding for both the product (brand, company) and the participant (Anderson, Challagalla, & McFarland, 1999). SET has been a valuable approach to analyse user behaviour within the online community context (Hemetsberger, 2002; Smith & Kollock, 1999). The theory demonstrates however that monetary benefits or incentives are not required for community members to make contributions. Füller (2006) points out that whilst managers often believe the offering of monetary incentives such as bonus points, drawing prizes or sharing product success is beneficial to stimulating user engagement, it is often mistaken. Rather, factors such as the ability to learn something new, the possibility to get exclusive content and the ability to gain acknowledgement and support from the community have a far greater impact on community members' motivation to contribute to virtual communities (Füller, 2006).

Social interaction

Consumer needs including the need for integration and social interaction and desire for social benefits (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004) have been defined as key motivations for users to access the internet. Related specifically to social media use, sub-motivations include gaining a sense of belonging, connecting with friends, family and society, seeking support and substituting for real-life partnership (Muntinga et al., 2011). Social identification is an important factor in user's contributions to social media sites (Boyd & Ellison, 2008). Social interaction involves consumers gaining insight into the circumstances of others, social empathy, identifying with others, gaining a sense of belonging, finding a basis for conversation, helping carry out social roles and enabling individuals to connect with family, friends and society (McQuail, 1983).

Social interaction needs have also been linked to consumer motivations to provide user

generated content online, with research showing that users find the internet a comfortable place to reveal their feelings, share views and experiences, and to let their family and friends know about their latest information (Leung, 2009). Internet users expressed the view that through the online content generation process, they would have the opportunity to be recognised, publicise their expertise, learn more of the world, socialise with friends and be entertained (Leung, 2009). Park et al. (2009) found that socialising is a significant reason for users to participate in Facebook groups. Socialising involves motivations such as getting peer support from others, meeting interesting people, belonging to a community, talking about something with others and staying in touch with friends (Park et al., 2009).

Brodie et al. (2013) define ‘socialising’ as one of the five sub-processes of customer engagement which may occur within a virtual brand community. Socialising, in this context, refers to two-way, non-functional interactions through which consumers develop attitudes, norms and/or community language. Chen (2011) studied the relationship between the social needs of Twitter users and the degree to which they are engaged in Twitter use. The study demonstrated that usage increased the more the person gratified a need for an informal sense of camaraderie (or connection) with other users. Similarly, Ko et al. (2005) demonstrated that consumers with high social interaction motivations are more likely to engage in human-to-human interaction. Human-to-human interaction refers to behaviours such as providing comments, feedback, and personal information to an advertiser and participating in on-line discussion or forums. These studies suggest that the social gratification is a significant predictor in the use of SNSs. In the following section, customer engagement is introduced, including an examination of recent literature regarding its theoretical

foundations, conceptualisation, dimensionality and related concepts.

2.4 Customer Engagement

The concept of engagement has been investigated across various disciplines, including psychology, organisational behaviour, sociology and political science. Further, engagement has been applied in a range of contexts, including *community engagement* (Algesheimer, Dholakia, & Herrmann, 2005; Keener, 1999), *student engagement* (Kahu, 2013; Skinner & Belmont, 1993), *employee engagement* (Kahn, 1990; Saks, 2006), *civic engagement* (Jennings & Stoker, 2004; Mondak, Hibbing, Canache, Seligson, & Anderson, 2010), *social engagement* (Achterberg, Pot, Kerkstra, Ooms, Muller, & Ribbe, 2003; Binning, Unzueta, Huo, & Molina, 2009; Huo, Binning, & Molina, 2010) and *stakeholder engagement* (Andriof & Waddock, 2002; Greenwood, 2007). Across these disciplines and contexts, the engagement concept has some conceptual consistencies, including recognition of emotional, cognitive and behavioural activation states (Kahn, 1990; Schaufeli, Salanova, González-Romá, & Bakker, 2002).

Customer engagement has emerged as an important construct in marketing research, literature and practice (Brodie et al., 2011). In recent literature exploring customer engagement, authors have focussed their attention on defining the concept, in addition to conceptualising the stages, levels, or processes embodied within the customer engagement concept. This section of the literature review explores customer engagement in detail, exploring recent literature which establishes the theoretical foundations of the concept, and outlines the definitions and dimensionality of customer engagement. A number of related yet distinct concepts are addressed, in addition to consideration of the antecedents and consequences of customer engagement.

2.4.1 Customer Engagement Theoretical Foundations

Customer engagement stems from the theoretical foundations of relationship marketing and the service-dominant (S-D) logic perspective (Ashley, Noble, Donthu, & Lemon, 2011). While the classical view of marketing is characterised by its consideration of customers as passive recipients of value created by companies, the focus of marketing has shifted from a product-centric to a customer-centric view of marketing (Day & Montgomery, 1999; Deshpandé, Farley, & Webster, 1993) in line with the relationship marketing approach. Relationship marketing is characterised as marketing activities which establish, develop and maintain successful relational interaction (Morgan & Hunt, 1994). Within this broadened relationship marketing notion, the firm focuses on existing and prospective customers, in addition to consumer communities and co-creative networks (Vivek et al., 2012).

Compared to the traditional goods-dominant (G-D) perspective where consumers are provided with the value created by firms and act as receivers (Lusch, 2007), the S-D logic perspective advocates an interactive view of the customer-brand relationship, whereby value co-creation through customer collaboration occurs. The S-D logic perspective addresses the service as the main purpose within business exchange, and emphasises the co-creation of value resulting from interactions among firms, customers and other stakeholders (Karpen, Bove, & Lukas, 2011). Interactive consumer experiences co-created with other actors can be interpreted as the act of ‘engaging’ (Lusch, Vargo, & Tanniru, 2010). Co-creation therefore occurs when the customer participates through behaviours that uniquely customise the customer-to-brand experience, beyond the selection of predetermined options as in co-production (van Doorn et al., 2010).

2.4.2 Engagement Conceptualisation

The conceptualisation and definition of engagement varies across multiple disciplines and contexts. For example, organisational behaviour literature suggests that engagement is physically, emotionally or cognitively expressed through task behaviours (Bowden, 2009). By comparison, in the discipline of social psychology, engagement is described as an initiative and adequate response to social stimuli (Jennings & Stoker, 2004).

Student engagement includes academic investment, motivation and commitment to an institution, in addition to perceived psychological connection, comfort and sense of belonging (Bryson & Hand, 2007; Hu & Wolniak, 2010).

Within marketing literature, engagement has been characterised by a range of forms including customer engagement (Patterson, Yu, & De Ruyter, 2006), customer engagement behaviours (van Doorn et al., 2010), customer brand engagement (Hollebeek, 2011b), consumer engagement (Vivek et al., 2012) and simply engagement (Higgins, 2006). Customer engagement can be defined as a psychological process by which customers move towards being loyal toward a brand (Bowden, 2009), or an ongoing emotional, cognitive and behavioural activation state (Brodie et al., 2011). Customer engagement has also received significant attention by authors regarding its specific behavioural dimension, who define engagement as behavioural manifestations toward an object (e.g. a brand) other than purchase, which result from motivational drivers (van Doorn et al., 2010; Verleye, Gemmel, & Rangarajan, 2013). Other engagement scholars go beyond behaviour to incorporate motivational drivers and/or psychological aspects as part of the engagement construct. To illustrate, Hollebeek (2011b) states that customer brand engagement is ‘the level of an individual customer’s motivational, brand-related, context-dependent state of mind characterised by specific

levels of cognitive, emotional and behavioural activity in direct brand interactions’ (p.790). This three dimensional perspective of customer engagement, incorporating cognitive, behavioural and emotional aspects is widely accepted in the customer engagement literature (Brodie et al., 2011). Despite the widely accepted three dimensional conceptualisation of engagement, there is little specific detail known regarding the specific sub-dimensions, operationalisation and measures of the cognitive, behavioural and emotional aspects. Further, there remains a lack of consistency and clarity regarding what the specific dimensions are, as demonstrated in Table 2.2. Table 2.2 provides a summary of the definitions proposed by recent scholars including engagement, consumer engagement, customer engagement, customer brand engagement, customer engagement behaviour, advertising engagement, media engagement, brand community engagement and online engagement.

Table 2.3 Customer Engagement Definitions

Author	Concept	Definition	Engagement Dimensionality
McEwen (2004)	Engagement	A measure of the strength of a company's customer relationships based on the extent to which customers have formed both emotional and rational bonds with a brand	-
Peppers and Rogers (2005)	Engagement	Engagement is a series of customised informational and financial transactions that occur over time and increase both the consumer value to the company and the value of the company to the consumer	Informational and financial transactions
Foley (2006)	Engagement	Engagement is a multidimensional concept, even a multidimensional process, with the end result defined as consumer connection in terms of cognitive, behavioural, emotional, and aspirational facet	Multidimensional: Cognitive, behavioural, emotional and aspirational
Higgins (2006)	Engagement	Being engaged is to be involved, occupied and interested in something	Multidimensional: Cognitive, hedonic, social
Scholer and Higgins (2009)	Engagement	Engagement is defined as a state of being involved, occupied, fully absorbed, or engrossed in something	-
Gambetti and Graffigna (2010)	Engagement	Rather than a specific definition, the following marketing-based sub-forms are identified: consumer-, customer-, brand- advertising- and media engagement	Focal engagement sub-forms may comprise the following dimensions: soft (relational), pragmatic (managerial)

Table 2.2 Customer Engagement Definitions (Cont.)

Author	Concept	Definition	Engagement Dimensionality
Abdul-Ghani, Hyde, and Marshall (2011)	Engagement	Requires consumer connection (e.g. with specific media)	Multidimensional: Utilitarian, hedonic, social
Appelbaum (2001)	Consumer engagement	Consumer engagement consists of both rational loyalty (includes overall satisfaction, intent to repurchase, and intent to recommend) and emotional attachment (including confidence in a brand, belief in its integrity, pride in the brand, and passion for it)	Multidimensional: rational loyalty, emotional attachment
Ghuneim (2006)	Consumer engagement	Consumer engagement is a consumer-based measurement that relates to interaction with an aspect of a brand or media property	-
Harris (2006)	Consumer engagement	Consumer engagement is a multidimensional concept: a brand's ability to connect meaningfully with the consumer	-
Campanelli (2007)	Consumer engagement	Consumer engagement is the emotional connection and empowerment of consumers	Emotional
Heath (2007)	Consumer engagement	Consumer engagement is a subconscious emotional construct. Level of engagement is the amount of subconscious "feeling" going on when an advertisement is being processed	One-dimensional: emotional
Shevlin (2007)	Consumer engagement	Consumer engagement is repeated and satisfying interactions that strengthen the emotional connection a consumer has with a brand (or product or company)	One-dimensional: emotional
Vivek et al. (2012)	Consumer Engagement	The intensity of a consumer's participation and connection with an organisation's offerings and/or its organised activities	Multidimensional:

Table 2.2 Customer Engagement Definitions (Cont.)

Author	Concept	Definition	Engagement Dimensionality
			Awareness, enthusiasm, interaction, activity, extraordinary experience
Patterson et al. (2006)	Customer engagement	The level of a customer's physical, cognitive and emotional presence in their relationship with a service organisation	Multidimensional: Vigor, dedication, absorption, interaction
Bowden (2009)	Customer engagement	A psychological process comprising cognitive and emotional aspects.	Multidimensional: Cognitive and emotional
MSI (2010)	Customer engagement	Customers' behavioural manifestation toward a brand or firm beyond purchase, which results from motivational drivers including: word-of-mouth activity, recommendations, customer-to-customer interactions, blogging, writing reviews, and other similar activities.	One-dimensional: behavioural
Smith and Wallace (2010)	Customer engagement	Customer engagement (CE) refers to the types of connections consumers make with other consumers, companies, and specific brands; CE is viewed as being conducive to enhancement of brand loyalty	-
So, King, and Sparks (2014)	Customer engagement	A customers' personal connection to a brand as manifested in cognitive, affective, and behavioural actions outside of the purchase situation	Multidimensional: identification, enthusiasm, attention, absorption, interaction

Table 2.2 Customer Engagement Definitions (Cont.)

Author	Concept	Definition	Engagement Dimensionality
Hollebeek (2011b)	Customer brand engagement	The level of an individual consumer's motivational, brand-related and context-dependent state of mind characterised by specific levels of cognitive, emotional and behavioural activity in brand interactions.	Multidimensional: Cognitive, emotional, behavioural
Bijmolt et al. (2010)	Customer engagement behaviour	The behavioural manifestation from a customer toward a brand or a firm which goes beyond purchase behaviour	One-dimensional: behavioural
van Doorn et al. (2010)	Customer engagement behaviours	The customer's behavioural manifestation toward the brand or firm, beyond purchase, resulting from motivational drivers	Multidimensional: Valence, form, scope, nature, customer goals.
Algesheimer et al. (2005)	Brand community engagement	Positive influences of identifying with the brand community through the consumers' intrinsic motivation to interact/cooperate with the community members	Multidimensional: Utilitarian, hedonic, social
Davis Mersey, Malthouse, and Calder (2010)	Media Engagement	A motivational experience; being connected to a specific media	Multidimensional: Transportation, irritation, promotion, rejection
Phillips and McQuarrie (2010)	Advertising Engagement	Modes of engagement are routes to persuasion	Multidimensional: Consumers engage in ads to: act, identify, feel, immerse.

Table 2.2 Customer Engagement Definitions (Cont.)

Author	Concept	Definition	Engagement Dimensionality
Owyang (2007)	Online engagement	Online engagement indicates the level of authentic involvement, intensity, contribution and ownership, summarised by ‘apparent interest’	Multidimensional: involvement, intensity, contribution and ownership
Peterson (2007)	Consumer online engagement	Consumer online engagement is an estimate of the degree and depth of visitor interaction on the site, measured against a clearly defined set of goals. Each organisation’s version of engagement will be unique. It will be derived from a number of root metrics, probably under a dozen. Common root metrics include frequency, recency, length of visit, purchases, and lifetime value	One-dimensional: behavioural.
Mollen and Wilson (2010)	Brand engagement (online)	The cognitive and affective commitment to an active relationship with the brand as personified by the website or other computer-mediated entities designed to communicate brand value	Multidimensional: Cognitive and affective

2.4.3 Customer Engagement Related Concepts, Antecedents and Consequences

The imprecision regarding a universal definition of customer engagement has led to varied interpretations of what customer engagement is, and is not. Specifically, scholars have focussed attention on providing a clear distinction between the relatively new domain of customer engagement, and closely related but conceptually differing concepts such as brand experience, loyalty, satisfaction, involvement, participation, commitment, interactivity and flow. This section of the literature review addresses these related but distinct concepts.

The conceptual distinction between *involvement* and engagement is discussed frequently in customer engagement literature (Bowden, 2009; Brodie et al., 2011; Brodie et al., 2013; Mollen & Wilson, 2010). Involvement reflects focused attention or engrossment with an engagement object (Mollen & Wilson, 2010). Defined as a “*state of mental readiness that typically influences the allocation of cognitive resources to a consumption object, decision or action*” (Thomson, MacInnis & Park, 2005, p. 41), involvement considers the cognitive processing, relevance and interest that a consumer experiences with regards to engagement objects. Involvement can also be defined as the perceived relevance of the object based on inherent needs, values and interests (Zaichkowsky, 1985). Comparatively, engagement goes beyond involvement to encompass an active dimension, depicted through interaction between engagement objects and subjects (Mollen & Wilson, 2010). Involvement has been suggested as an antecedent to behavioural customer engagement (Vivek et al., 2012) and psychological customer engagement (Cheung et al., 2011).

Customer engagement can be viewed as a psychological state which drives customer loyalty (Bowden, 2009). Loyalty can manifest behaviourally, through repeated

purchases prompted by attitudinal loyalty, a strong internal disposition (Jacoby & Kyner, 1973). Loyalty does not reflect part of the engagement concept itself. Rather it is seen as a potential customer engagement consequence (Bowden, 2009; Patterson et al., 2006). Similarly, satisfaction is conceptually distinct from customer engagement. Satisfaction is considered as an evaluative outcome of customer engagement for new customers (Brodie et al., 2011). However, some discrepancy occurs regarding its conceptual relationship with engagement. Authors have also proposed that satisfaction could be an antecedent to customer engagement behaviour for existing and experienced customers (van Doorn et al., 2010). In this case, it is expected that satisfied, existing customers of a brand are more likely to engage with the focal brand. From Brodie et al.'s (2011) perspective, a customer's satisfaction with the brand occurs following the engagement experience.

Participation refers to the degree to which customers produce and deliver service (Bolton & Saxena-Iyer, 2009). While related constructs such as involvement capture the psychological elements of customer engagement, participation reflects the behavioural facet of engagement. Multidimensional views of customer engagement (Brodie et al., 2011) advocate inclusion of the cognitive, emotional and behavioural dimensions in order to capture the full notion of customer engagement. Participation fails to encapsulate this notion, only reflecting the behavioural dimension. Additionally, Vivek (2009) suggests that participation refers to customers' connections with the firm in exchange situations. However customer engagement is a broader concept which goes beyond such exchange-centric perspectives.

Commitment is closely related to the emotional/affective dimension of customer engagement, encompassing a psychological attachment (Bowden, 2009). Commitment

reflects an emotional attachment in which a customer is committed when “*his or her values, self-image, and attitudes are strongly linked to a specific choice alternative*” (Bowden 2009, pg. 70). This state causes the customers to view a specific object as the only acceptable choice. Compared to involvement, customer commitment goes beyond interest and relevance. However it does not incorporate behavioural and cognitive dimensions as required by customer engagement. Commitment has been suggested as a consequence of customer engagement (Brodie et al., 2013; Chan & Li, 2010).

The concept of *interactivity* is closely related to the behavioural dimension of customer engagement. While there is little consensus about the definition of interactivity in the literature, it has been proposed that interactivity is an experiential phenomenon, in which customers perceive communication as “*two-way, controllable and responsive to their actions*” (Mollen and Wilson, 2010. p.5). This concept appears to capture the behavioural dimension of customer engagement. However it excludes the application of psychological and motivational elements as captured within the emotional and cognitive aspects of customer engagement. Through its depiction of the behavioural element of customer engagement, interactivity has been discussed as one dimension of engagement (So et al., 2014), an antecedent to engagement (Hollebeek, 2011b) and a consequence of customer engagement.

Flow can be defined as a state of optimal experience that is characterised by focused attention, a clear mind, mind and body unison, effortless concentration, complete control, loss of self-consciousness, distortion of time and intrinsic enjoyment (Csikszentmihalyi, 1990). Flow is a distinct construct to engagement characterised as a psychological state (Mollen & Wilson, 2010). Flow may act as an antecedent to customer engagement in certain contexts, including the online environment (Brodie et

al., 2011).

Closely related concepts to engagement including involvement, loyalty, participation, commitment, interactivity, and flow as discussed have often been positioned as antecedents and/or consequences to customer engagement depending on the context. The following section of the literature review discusses customer engagement antecedents and consequences in order to bring further clarity regarding customer engagement.

Discussion surrounding the closely related concepts to customer engagement has given rise to academic debate regarding the potential antecedents and consequences of engagement. Factors such as identification (Nambisan & Baron, 2007; Tsai et al., 2012), identity (Eisenbeiss et al., 2012; van Doorn et al., 2010) and hedonism (Gambetti et al., 2012; Nambisan & Baron, 2007) have been described as antecedents to customer engagement. Consequences of customer engagement include loyalty (Bowden, 2009; Brodie et al., 2011; Hollebeek, 2011a), customer value (Vivek et al., 2012), word-of-mouth (WOM) (Vivek et al., 2012) and product innovation (Hoyer et al., 2010; Sawhney et al., 2005). Whilst these concepts are distinct in their positioning as either antecedents or consequences of engagement, a lack of conceptual clarity emerges regarding constructs such as satisfaction, trust, rapport, commitment and interaction (Brodie et al., 2011; Gambetti et al., 2012; Hollebeek, 2011b; Tsai et al., 2012; van Doorn et al., 2010; Vivek et al., 2012). Table 2.3 provides a further summary of customer engagement and its conceptual relationships. The constructs are presented in three groups: antecedents of customer engagement, consequences of customer engagement, and constructs that have been categorised as both antecedents and consequences depending on the context.

Table 2.4 Customer Engagement Conceptual Relationships

Construct	Definition	Conceptual Relationship to CE	Relevant Engagement Literature
<i>Antecedents</i>			
Involvement	An individual's level of interest and personal relevance in relation to a focus object/decision in terms of his or her basic values, goals and self-concept (Lassar, Mittal, & Sharma, 1995)	Antecedent	Hollebeek (2011a), Brodie et al. (2011), Vivek et al. (2012), Nambisan and Baron (2007)
Participation	The degree to which customers produce and deliver service (Bolton & Saxena-Iyer, 2009)	Antecedent	Brodie et al. (2011) Vivek et al. (2012)
Flow	A state of optimal experience characterised by focused attention, clear mind, mind and body unison, effortless concentration, complete control, loss of self-consciousness, distortion of time, and intrinsic enjoyment (Csikszentmihalyi, 1990)	Antecedent	Hollebeek (2011a)
Identification	Identification refers to a person's self-conception, according to the defining features of a self-inclusive social category (e.g., brand community) that renders the self stereotypically "interchangeable" with other group members and distinct from outsiders (Bergami & Bagozzi, 2000; Bhattacharya & Sen, 2003)	Antecedent	Nambisan and Baron (2007) Tsai et al. (2012)
Identity	a psychological state in which people acquire a social identity (as part of their self-concept) through a group when they perceive group membership (Reed, 2002; Terry, Hogg, & White, 1999)	Antecedent	Eisenbeiss et al. (2012), van Doorn et al. (2010)

Table 2.3 Customer Engagement Conceptual Relationships (Cont.)

Construct	Definition	Conceptual Relationship to CE	Relevant Engagement Literature
<i>Consequences</i>			
Loyalty	Repeated purchases (behavioural loyalty) prompted by a strong internal disposition (attitudinal loyalty) (Day, 1976) over a period of time (Guest, 1944).	Consequence	Bowden (2009)
Customer value	A customer's overall assessment of the utility of a product/service based on perceptions of what is received and what is given (Zeithaml, 1988)	Consequence	Hollebeek (2011)
<i>Antecedents and Consequences</i>			
Interaction	A variable characterised by some form of customer-firm interaction (Bolton & Saxena-Iyer, 2009)	Antecedent Consequence	Hollebeek (2011a) De Vries et al. (2012) Tsai et al. (2012)
Rapport	Perceived level of harmonious, empathetic or sympathetic connection to another, which is viewed in some way as congruent to the self (Brooks, 1989); A sense of genuine interpersonal sensitivity and concern (Ashforth & Humphrey, 1993)	Antecedent (existing customers) Consequence (new customers)	Hollebeek (2011a) Brodie et al. (2011)
Customer Satisfaction	A customer's overall evaluation of the performance of an offering to date (Gustafsson, Johnson, & Roos, 2005; Johnson & Fornell, 1991).	Antecedent (existing customers) Consequence (new customers)	van Doorn et al. (2010) Tsai et al. (2012)

Table 2.3 Customer Engagement Conceptual Relationships (Cont.)

Construct	Definition	Conceptual Relationship to CE	Relevant Engagement Literature
Trust	Consumer-perceived security/reliability in brand interactions and the belief that the brand acts in consumers' best interests (Delgado-Ballester, Munuera-Aleman, & Yague-Guillen, 2003; Rotter, 1967)	Antecedent of CE behaviour Antecedent (existing customers) Consequence (new customers)	Bowden (2009) van Doorn et al. (2010) Hollebeek (2011a) Tsai et al. (2012) Gambetti et al. (2012)
Commitment	Valuing an ongoing relationship with a specific other party so as to warrant maximum efforts at maintaining it, i.e. a desire to maintain the relationship (Morgan & Hunt, 1994)	Consequence Antecedent (existing customers) Antecedent (behaviour)	Bowden (2009) van Doorn et al. (2010) Hollebeek (2011a) Gambetti et al. (2012)

2.4.4 Dimensions of Customer Engagement

As discussed throughout Sections 2.4.2, ‘Engagement Conceptualisation’ and 2.4.3 ‘Engagement Related Concepts, Antecedents and Consequences’, a lack of clarity remains regarding the definition and dimensionality of customer engagement. However, the concept has been generally conceptualised into three overarching dimensions; cognitive, emotional and behavioural engagement (Brodie et al., 2011; Cheung et al., 2011; Hollebeek, 2011b; Mollen & Wilson, 2010; Patterson et al., 2006; Taheri, Jafari, & O’Gorman, 2014; Vivek et al., 2012). The multi-dimensional view of customer engagement defines engagement as a ‘psychological state’ through its incorporation of cognitive and emotional aspects (Brodie et al., 2011; Hollebeek, 2011b; Patterson et al., 2006). Comparatively, one-dimensional engagement perspectives have a dominant focus on the behavioural manifestations of engagement (Brodie et al., 2011)

The cognitive dimension of customer engagement refers to individual’s levels of concentration and/or engrossment in the brand. Emotional activity can be represented by a customer’s level of brand-related inspiration and pride. Thirdly, behavioural engagement activity can be expressed through a customer’s level of energy exerted in interacting with a focal brand (Hollebeek, 2011a, 2011b).

This thesis explores the behavioural manifestation of the concept, consistent with previous studies of engagement and social media (e.g. Gummerus et al., 2012, van Doorn et al., 2010). Section 2.4.5 introduces customer engagement behaviour (CEB) and its positioning within this thesis.

2.4.5 Customer Engagement Behaviour

CEB is defined as “*a customer’s behavioural manifestations that have a brand or firm*

focus, beyond purchase” (van Doorn et al., 2010 p.254). CEB involves customers’ voluntary resource contributions that have a brand or firm focus, but go beyond what is fundamental to transactions. These contributions occur in interaction between the focal engagement object and/or other actors and result from motivational drivers (Jaakkola & Alexander, 2014). In line with the rise of online social networks as discussed earlier in Section 2.2, non-transactional customer behaviour is an increasingly important consideration, as customers and firms rapidly and easily interact online (Verhoef, Reinartz, & Krafft, 2010). The achievement of customer engagement is said to incur beneficial consequences for brands, through interactions between customers and employees, in which customers can give suggestions for service improvement, resulting in cost advantages for firms (Hoyer et al., 2010; Verleye et al., 2013). Further, CEB among customers through the creation of word of mouth, referrals and online reviews can affect other customer attitudes and behaviours towards brands (Gupta & Harris, 2010). CEB directed toward the firm and its employees may involve elements of cooperation, feedback and compliance.

The proliferation of social media platforms and corresponding consumer adoption in recent years has precipitated a paradigm shift, significantly altering the way customers behave and engage with brands. While traditional marketing communications approaches were characterised by one way, controlled communication from the marketer to consumer, the social media paradigm shift has allowed for interactive and dynamic communications between customers and brands. The social media environment offers users a touch-point through which they can actively and behaviourally engage with brands through reading, commenting, reviewing and sharing information online (Calder et al., 2009). In the next chapter, the concept of CEB specifically within the

social media forum is introduced and defined.

2.5 Chapter Summary

This chapter reviewed the relevant literature regarding social media, UGT and customer engagement. The chapter began by discussing the emergence of social media, its definitions and types, specifically focussing on social networking sites. It is evident from the foregoing literature presented in this chapter that a significant challenge for marketing academics and practitioners has emerged, with recent academic enquiry showing a significant lack of knowledge regarding the strategic development of successful customer engagement within social media. Additionally, while recent research has explored the conceptualisation, related concepts, and antecedents and consequences of customer engagement, studies that consider customer engagement with social media are only beginning to emerge. In particular, there is a need to develop a theoretical understanding of the nature of engagement behaviour in response to marketing practices within a social network structure (Sashi, 2012).

This chapter examined the relevant literature regarding social media, UGT and customer engagement. Four overarching social media gratifications were identified based on recent UGT literature; information seeking, entertainment seeking, desire for economic reward or remuneration, and desire for social and relational interaction. Through the application of the UGT perspective, a greater understanding is developed regarding specific user motivations for customer engagement through social media.

CHAPTER 3. Social Media Engagement Behaviour

3.1 Introduction

Customer engagement is interactive and context-dependent in nature (Brodie et al., 2011; Calder et al., 2009; Gummerus et al., 2012). To comprehensively understand customer engagement, examination of specific focal objects of engagement is required. Focal objects of customer engagement include product or service offerings (Brodie et al., 2011), media (Calder et al., 2009), and activities and events (Vivek et al., 2012). While customers engage with a firm or brand through the multiple touch-points and service encounters, constituting the entire brand experience, there is little research that examines engagement with a specific focal object.

In this chapter, the focus is on one touch-point; social media. Extending from the literature reviewed in the previous chapter, the examination of engagement behaviour focuses on a singular focal object of engagement (social media), and therefore does not reflect customer brand engagement in its entirety. The examination within this context-specific environment provides greater insight into the behavioural manifestations of engagement within social media platforms in order to further develop an understanding of the nature of engagement at different intensities and with different valence (Brodie et al., 2011; Vivek et al., 2012).

Specifically, this chapter outlines the development of a new construct termed 'social media engagement behaviour' (SMEB). The construct explicates six specific types of SMEB. These types are characterised by varying levels of intensity in addition to their positively and negatively-valenced nature.

3.2 Social Media Engagement Behaviour

3.2.1 Definition of Social Media Engagement Behaviour

This thesis adapts the definition of customer engagement behaviour from van Doorn et al., (2010, p. 254) to reflect social media engagement:

Social media engagement behaviours go beyond transactions, and may be specifically defined as a customer's behavioural manifestations that have a social media focus [adapted], beyond purchase, resulting from motivational drivers.

In order to further understand SMEB, this chapter draws from previous literature in order to investigate the intensity and valence of engagement behaviours that may exist in the social media context. SMEB intensity and SMEB valence are discussed in the following sections, leading to a discussion of the SMEB construct developed for this study.

3.2.2 Social Media Engagement Behaviour Intensity

Customers engage with focal brands and brand related content within social media platforms (Chu, 2011; Chung & Austria, 2010; Hollebeek et al., 2014). Traditional categorisations of 'users' of social media: distinguish between users who create content such as 'posters', compared to those who are members of a community but do not post, referred to as 'lurkers' (Nonnecke & Preece, 1999; Preece, Nonnecke, & Andrews, 2004). This basic categorisation of online users is limited in its general nature and fails to take into account the diverse number of possible roles available to users in dynamic platforms. Previous research categorised social media users who 'like' brands on Facebook into groups based on their brand loyalty, brand love, use of self-expressive brands, and word of mouth (Wallace, Buil, De Chernatony, & Hogan, 2014). In an attempt to define customer engagement intensity within social media, scholars have also

characterised engagement behaviours on a continuum of low to high activity (Muntinga et al., 2011).

Muntinga et al. (2011) propose three social usage types: *consuming* (low level of brand related activity), *contributing* (medium level) and *creating* (highest level). Muntinga et al.'s (2011) development of the "COBRA's" (consumers online brand related activities) as described here has not been empirically tested. Based on its description, consuming brand related content may reflect a level of dormancy whereby consumers do not actively contribute to the brand relationship. Malthouse et al. (2013) distinguish between two levels of engagement, lower and higher. Lower engagement describes situations in which customers exhibit passive engagement, consuming content or using very basic forms of feedback, such as 'liking' a page on Facebook. Comparatively, higher engagement occurs in cases when customers more actively process the role of the brand in their lives, participating in forms of co-creation through writing reviews, comments or creating content (Malthouse et al., 2013). Other online engagement scholars (Cvijikj & Michahelles, 2013; De Vries et al., 2012; Lee et al., 2013) have proposed more numeric measures of online engagement behaviours, such as the number of likes, comments, shares and interaction duration as indicators of how much 'engagement' was demonstrated by consumers.

3.2.3 Social Media Engagement Behaviour Valence

Online engagement behaviours such as blogging, writing online reviews and word-of-mouth activity have the potential to be positive or negative for the firm, based on the valence of the content (van Doorn et al., 2010). Positive customer engagement includes those actions that in both the short and long run have positive consequences (financial and nonfinancial) for the firm. Actions such as recommending the brand to friends and

family may be predominantly positive, however also have the potential to be negative (van Doorn et al., 2010). The valence of customer engagement behaviour is one of five dimensions of engagement behaviour as proposed by van Doorn et al. (2010). The other dimensions are scope, form/modality, nature of impact and customer goals (van Doorn et al., 2010). It has been proposed that customer-based, firm-based, and context-based factors act to facilitate the five proposed dimensions of customer engagement behaviour.

Positively-valenced engagement behaviour is reflected in favourable or affirmative behaviours, whereas negatively-valenced engagement behaviour is exhibited through unfavourable behaviours (Hollebeek & Chen, 2014). Positively-valenced behaviours often reflect heightened levels of customer engagement and include activities such as ‘sharing’ a brand post to a friend with a recommendation to experience the offer (van Doorn et al., 2010).

Extant literature pays little attention to negatively-valenced behaviours that involve such activities as customers frequenting anti-brand communities, or visiting social media platforms to vent negative feelings and views about brands.

3.2.4 Social Media Engagement Behaviour Construct

The SMEB construct outlined in this section proposes six distinct types of behaviour that epitomise a hierarchy of SMEB and reflect both positively- and negatively-valenced nature of the behaviour. The construct incorporates lower intensity and more passive engagement behaviours, such as dormancy and consumption. Additionally, it recognises more active engagement behaviours with a moderate intensity: detachment and contribution. Finally, the construct demonstrates the occurrence of highly active engagement behaviour such as creation and destruction. Whilst recognising the different

forms of SMEB, the construct also reflects the valence of behaviours. Each of these types of SMEB will be discussed in Section 3.2.5.

Studies addressing the processes and levels of social behaviour in the online context provide foundational insights. However, theoretical coherence of the concept and corresponding measurement techniques remain sparse. The construct developed depicting SMEB offers value to engagement researchers through the context-specific detailed investigation of engagement behaviour. Further, the description of various engagement behaviours offers managerial clarity regarding exactly how users engage, both positively and negatively, within social media platforms. The construct includes a neutral inactive level termed dormancy, three positively-valenced behaviours: consuming, contributing and creating, and two negatively-valenced behaviours: detachment and destruction. Each of these typologies of SMEB is discussed in the following section. Table 3.1 outlines each of the types of SMEB, with their respective definitions and examples. Additionally, the six SMEB's are presented visually in Figure 3.1.

Figure 3.1 Social Media Engagement Behaviour Construct

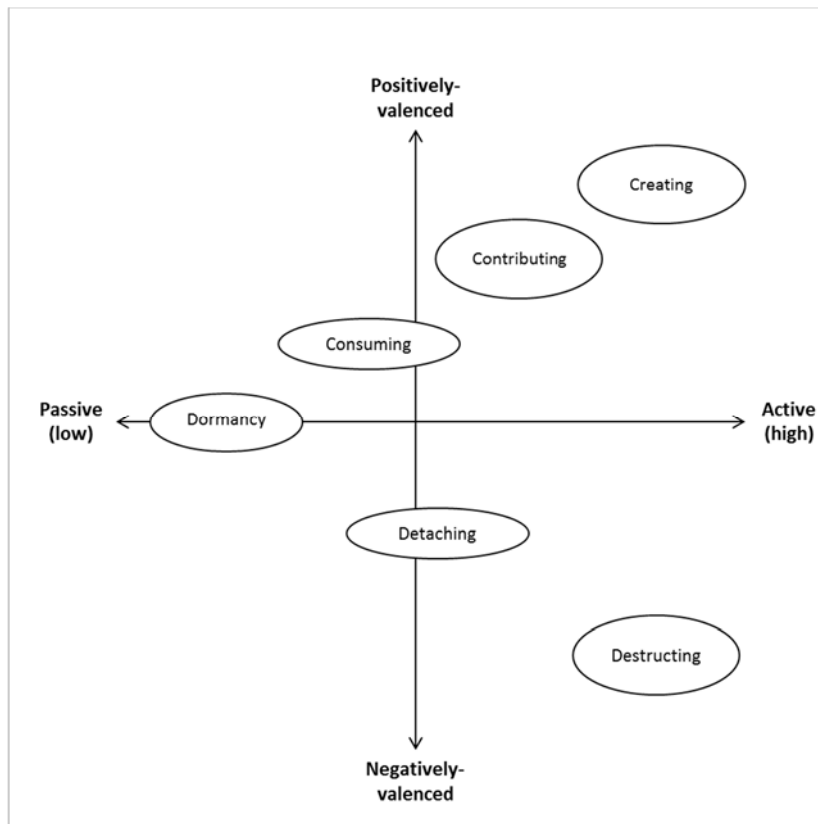


Table 3.1 Positively- and Negatively-Valenced Social Media Engagement Behaviours

Behaviour	Definition	Examples
Creating	Users engage with brands and other users by creating positively-valenced content on social media platforms. Creating epitomises a highly active level of SMEB. Creating users exhibit specific creating behaviours of knowledge seeking, sharing experiences, advocating, socialising, co-developing and affirming.	<p><i>Knowledge Seeking:</i> Content is created by users with the objective of learning, through the acquisition of competencies that consumers apply to purchase consumption decisions.</p> <p><i>Sharing Experiences:</i> Users provide content that is designed to disseminate personal relevant information, knowledge and experiences.</p> <p><i>Advocating:</i> Users recommend specific brands, products/services and organisations, or ways of using products and brands.</p> <p><i>Socialising:</i> Users' content reflects two-way, non-functional interactions</p> <p><i>Co-developing:</i> Content which assists in the development of new products and services</p> <p><i>Affirming:</i> The creation of content with the aim of disseminating support, encouragement and acknowledgement of the focal firm, brand or organisation's success</p>
Contributing	Users contribute to existing content in social media platforms. Contributing users exhibit a moderate level of positively-valenced SMEB.	<p>Facebook: 'like' content and 'share' content to personal profile or friends profile</p> <p>Twitter: 'favourite' brand related tweets, 're-tweet' brand-related content to personal profile.</p> <p>Instagram: 'Like' brand related images, 're-gram' brand-related images to personal profile</p> <p>YouTube: 'like' content, share video to personal social networks.</p>
Consuming	Users passively consume content without any form of active reciprocation or contribution. Consuming users demonstrate a minimum level of positive, passive SMEB.	<p>Viewing brand-related video</p> <p>Listening to brand-related audio</p> <p>Viewing pictures and photos posted by the brand</p> <p>Reading brand posts</p> <p>Reading post comment threads and conversations</p> <p>Reading product/brand reviews within the social media page</p>
Dormancy	A temporary state of inactive, passive engagement by users who may have previously interacted with the focal brand.	Brand-related content is delivered to the user via the social media news feed or home page but the user takes no action.

Table 3.1 Positively- and Negatively-Valenced Social Media Engagement Behaviours (Cont.)

Behaviour	Definition	Examples
Detaching	Users take action to remove content of the brand appearing in their news-feed or equivalent home page. Detaching users exhibit a moderate level of negatively-valenced SMEB	<ul style="list-style-type: none"> ‘Unliking’ or ‘unsubscribing’ to a social media brand page ‘Unfollowing’ a brand on social media Terminating a subscription for further updates and content from the brand Selecting to hide future posts
Destructing	Negative, active contributions to existing content on social media platforms are created by destructive users. Destructive users represent a highest level of negatively-active SMEB.	<ul style="list-style-type: none"> Conversing negatively on brand-related content Making negative contributions to brand forums Publicly rating products and brands negatively Commenting negatively on posts, blogs, videos and pictures posted by the brand Writing a public complaint on the brand page Writing negative product reviews and testimonials on social media content Reporting brand or brand-related social media content for misconduct of use on social media

3.2.5 Social Media Engagement Behaviour Typologies

Creating

Users who create original content within social media platforms exhibit the highest level of positively-valenced SMEB. Users make unique, positive, active contributions to social media content by disseminating their knowledge, resources and experiences (Brodie et al., 2013). This behaviour goes beyond relaying (e.g. sharing, liking) content created by the brand and reflects a user's contribution to the brand's social media site. Although not all user comments and content creation is favourable towards a brand, the categorisation recognises the creation of negative content as *destructing* engagement behaviours and these will be discussed in detail later in this section. Therefore, within the typology of SMEB, it is posited that positively-valenced, active and highly engaged users fall under the *creating* type of engagement behaviour. They exhibit interactive creation behaviours specific to social media platforms including knowledge seeking, sharing experiences, advocating, socialising and co-developing the brand experience or offering (Brodie et al., 2013).

Six *creating* engagement behaviours, specific to social media platforms are derived from Brodie et al., (2013). These different categories reflect the objective and intent of the content that is created and posted to the social media site by users. These categories may occur independently or in conjunction (e.g. sharing experiences and advocating). The categories include knowledge seeking, sharing experiences, advocating, socialising, affirming, and co-developing. Each of the creation behaviours are discussed in the following sections.

Knowledge seeking: Users create content within social platforms with the objective of seeking knowledge from other users that can be applied to purchase and consumption

decision-making (Brodie et al., 2013). The concept of knowledge acquisition through media content has strong links to the uses and gratifications theoretical perspective (Calder et al., 2009). Content created may include specific questions about the product or service, directed towards other users of the brands who may share their experience and knowledge. Social media platforms enable and increase the collaboration and learning from customers in various ways, such as providing and receiving feedback regarding new products and services (Kärkkäinen, Jussila, & Leino, 2012). Customer-related learning can benefit both the supplier and receivers of information, (i.e. the brand and the customer), as both parties learn by receiving and adopting novel information and knowledge (Kärkkäinen et al., 2012). This exchange has been referred to as ‘interactive learning’, described as the informal exchange and sharing of knowledge resources with suppliers and/or customers that is conducive to the firm (Meeus, Oerlemans, & Hage, 2001). Social media platforms have been credited with facilitating processes of interactive learning, including facilitating the mobilisation of tacit knowledge (Ribiere & Tuggle, 2010), enhancing information and knowledge sharing (Levy, 2009), and facilitating knowledge acquisition (Schneckenberg, 2009).

Sharing Experiences: Users disseminate personally relevant information, knowledge and experiences (Brodie et al., 2013; Jaakkola & Alexander, 2014). Users share their personal experiences and personally relevant information in this way through storytelling. Traditionally it has been difficult for managers to acquire this information of customer conversations, opinions and desires (Gorry & Westbrook, 2011). Few managers could hear customers speak in their own words about their experiences (Gorry & Westbrook, 2011). However, within social media platforms, the barrier is reduced as customers freely comment and create stories regarding their brand experiences. In a

social media platform, user sharing of their personal experiences and knowledge allows them to pass along their information about services or products purchased (Black & Kelley, 2009). Through such forms of content creation, users co-create experiences within social media platforms. This concept goes beyond the practice of forwarding brand posts, as users are actively creating the content to share with the social media community.

Advocating: Advocating is an expression of engagement, which occurs when users recommend their preference for specific brands, products/services and organisations or ways of using products and brands (Sashi, 2012). This form of content creation is aimed at influencing other user's perceptions, preferences or knowledge regarding the brand (Jaakkola & Alexander, 2014). Advocating may occur through positive electronic word-of-mouth (e-WOM) (van Doorn et al., 2010), the significance of which is well recognised in the marketing and advertising literature (Engel, Kegerreis, & Blackwell, 1969; Gilly, Graham, Wolfenbarger, & Yale, 1998). Social media platforms represent an ideal tool for e-WOM, as consumers freely create and disseminate brand-related information in their established social networks composed of friends, classmates and other acquaintances (Vollmer & Precourt, 2008). Further, advocating focal brands and brand-related experiences through e-WOM behaviours on social media will likely impact purchase behaviour and increase customer value (van Doorn et al., 2010).

Socialising: Socialising behaviour denotes the creation of content through two way, non-functional interactions (Brodie et al., 2013). The social value derived from membership in social media platforms has been argued to drive the adoption and usage levels of the platforms (Hennig-Thurau, Malhotra, Frieger, Gensler, Lobschat, Rangaswamy, & Skiera, 2010). Social media platforms, incorporating brand pages,

provide greater opportunities for interactions where consumers can derive social value from computer-mediated interactions with one another (De Vries & Carlson, 2014).

Within social media platforms members perceive other members as similar to themselves and have the opportunity to interact, meet and communicate with them (Jahn & Kunz, 2012). It has been suggested that a higher perception of social-interaction value of social media brand pages may lead to the customer using the page more frequently, and subsequently becoming more engaged with the brand (De Vries & Carlson, 2014). Social-interactive engagement occurs in online communities, whereby users experience intrinsic enjoyment and value the input from the larger community of users (Calder et al., 2009). Social engagement has been identified as a fundamental dimension of engagement in online (Calder et al., 2009) and off-line environments (Altschwager, Conduit, & Goodman, 2013).

Users who exhibit a high level of socialising behaviour interact on a brand's social media page and may develop a sense of belonging and feeling of knowing each other (Park et al., 2009). This form of content is created with the sole purpose of interacting and communicating with the brand and other members in a social manner. This is distinct to the behaviour of sharing experiences, in which users share personal relevant information, knowledge and experiences within the social media platform (Brodie et al., 2013).

Co-developing: Users contribute to the brand by assisting in the development of new products, services, brands or brand meanings (Brodie et al., 2013). Users engaged in co-developing behaviours assist in the collaborative innovation of new products and services, allowing firms to draw upon customer knowledge, experience and capabilities (Greer & Lei, 2012). When customers are involved in design and innovation processes,

there is a positive impact on new product performance (Menguc, Auh, & Yannopoulos, 2014). Within the social media context, collaborative innovation occurs when users contribute their knowledge, resources and skills to facilitate the focal firm's developing of its offering, through sharing ideas for improved products and services (Jaakkola & Alexander, 2014). Users also answer questions or quizzes related to the brand within social media platforms, which provides the organisation with customer insight for future development of its offerings. The use of questions and quizzes as a form of gamification in order to engage users in solving problems has been found to increase user contributions and engagement (Huotari & Hamari, 2012)

Affirming: Affirming denotes the specific creation of content by users with the aim of disseminating their support, encouragement and acknowledgement of the brand's success. Drawing from the self-concept theory (Mehta, 1999; Sirgy, 1982), affirming behaviour refers to the words and deeds of others that act to reinforce an individual's perceptions of competencies, traits and values (Schmidt & Scholl, 2004). Types of affirming behaviour include positive feedback directed toward the brand, recognition of skills and worth and recognising significant achievements (Schmidt & Scholl, 2004). In social media platforms, affirming behaviour occurs in a customer-to-brand manner whereby users and customers recognise and communicate the brand's skills, worth and significant achievements. Affirming behaviour differs from advocating or word-of-mouth behaviour in that the content is directed toward the brand. Comparatively, advocating behaviour occurs when users engage in user-to-user interactions with the aim of recommending brands, products and services (Jaakkola & Alexander, 2014). Affirming allows users who are highly engaged a way of demonstrating their appreciation and support for the focal brand.

Chapter 3: Social Media Engagement Behaviour

It is posited that the ‘creating’ form of SMEB consists of the six creation behaviours as described above. The occurrence of creating engagement behaviours can be triggered when a consumer recognises a need to solve a problem or satisfy a need, performs a search, identifies relevant social media platforms, and posts a comment. The nature of the posted comment and resultant conversations characterise the creation of knowledge seeking, sharing experiences, advocating, socialising, co-developing, and affirming behaviours. The construct of SMEB recognises that whilst customers can be actively and positively engaged with the brand through the six creating behaviours, additional behaviours may occur within a social media environment. These are less active in nature; however still represent a positively-valenced expression of engagement through contributing to and consuming brand related content.

Contributing

The second overarching SMEB proposed, ‘*contributing*’ sees users forward or contribute to existing content. However, they do not create any additional or new content in the form of writing a comment or post. Contributing users represent a moderate level of positively-valenced SMEB. Through functions such as ‘sharing’ content on Facebook, and ‘re-tweeting’ messages on Twitter, users contribute by forwarding brand content. Users are therefore distributors of pre-existing content, passing along information to members of their own social networks. Additionally, users contribute to content by indicating their preferences for specific social media content through selecting the ‘Like’ function on Facebook and Instagram, tagging friends and other users in comments, and functions such as the ‘favourite’ option on Twitter. Through these actions, users contribute to the popularity of social media content and become message senders for the focal brand, passing on content to actors within their

own networks. When users undertake these actions, they not only increase the original reach and exposure of the social media content, they also become advocates of the focal brand. This increases the likelihood of friends and other social media users engaging with the brand (Chu, 2011).

Consuming

Consuming is defined as the passive consumption of brand related content through reading reviews, discussion and comments, viewing photos, watching videos and clicking on content and links. Consuming reflects the minimum level of positively-valenced SMEB. Consumption behaviour is passive, whereby consumers exhibit a level of engagement however do not actively contribute to or create content. Through the consumption of content within social media platforms, individuals may extract individual value. Users' behaviour is individualistic and independent of other users, and thus will not impact on other users of the social media platform. Reading discussions (e.g. to find information) is a form of passive engagement, whereas posting comments is active engagement (Gummerus et al., 2012; Shang, Chen, & Liao, 2006). Only a small number of customers actively interact with content and other members, with most customers using brand communities to consume content as a source of information, reading messages rather than contributing through likes, shares and comments (Gummerus et al., 2012). Consuming users may consciously choose not to contribute to social media content for several reasons including a desire for privacy, time pressures, and an overload of messages (Nonnecke & Preece, 1999). Hence, within this thesis there is a distinction in non-contributing behaviour, between consuming behaviours and dormancy.

Dormancy

A dormant user is one who has made zero active or passive contributions to the community. Users do not behaviourally engage with the brand passively or actively, through consuming, contributing to or creating content. Rather, dormant users exhibit a temporary state of inactive engagement (Brodie et al., 2013). This state does not necessarily reflect inactive cognitive or emotional engagement, but there is no visible interaction between the user and the brand from the perspective of an independent observer (e.g. another user). Dormant users are considered as neutral in their engagement behaviour valence, and do not exhibit negatively-valenced engagement behaviours such as detachment or destruction. Studies of Facebook user behaviour have indicated a significant rate of dormancy, with less than five percent of Facebook users engaging with the brand they are a fan of, regardless of product category (Nelson-Field & Taylor, 2012). Such a high rate of inactive users presents a challenge for marketers, particularly those wishing to increase expressions of SMEB. To date, little research has been undertaken in the social media arena to determine effective communication efforts and strategies that may act to facilitate superior levels of engagement amongst existing users who remain dormant.

Detaching

Detaching represents a negatively-valenced SMEB, which involves users actively and yet privately removing themselves from social media brand pages through selecting to hide brand related content, or ‘unlike’ and ‘unsubscribe’ from the page. Detachment represents a moderate level of negatively-valenced SMEB. Detaching users have made a decision to terminate their interaction with the brand, meaning there is a temporary or permanent conclusion to the consumers’ behavioural engagement with the brand community. As users privately and quietly remove themselves from the platform, it is

unlikely to impact on other users of the page.

Customer detachment from a brand relationship is observed in interpersonal relationship scholarly research through the concept of relationship ending (Duck & Perlman, 1985). Similarly, relationship termination, withdrawal, dissolution, discontinuation, uncoupling and break-up reflect similar processes of detachment (Stewart, 1998). Referring to detachment as a process of disengagement, Bowden, Gabbott, and Naumann (2014) define disengagement as a process, stimulated by a trauma or disturbance leading to relationship termination, dependent on prior levels of engagement:

“A process by which a customer-brand relationship experiences a trauma or disturbance which may lead to relationship termination; which involves a range of trigger based events; which varies in intensity and trajectory; which occurs within a specific set of category conditions and which is dependent on prior level of customer engagement”. (p.6)

This view of customer disengagement suggests a permanent state of detachment.

However, disengagement or detachment with a focal brand or brand community may be more temporary in nature. Consumers may choose to re-join the community, following the trauma or disturbance.

Destructing

Destructive social media users make negatively-valenced active contributions to social media brand pages that would be visible to other users. Negatively-valenced, destructive content is created by users within social media platforms with the aim to disseminate negative word-of-mouth, or e-WOM, and vent negative brand related feelings, causing a destruction of brand value (Bowden et al., 2014; Hollebeek & Chen, 2014; Plé & Cáceres, 2010). While co-creation refers to the process in which providers and customers collaboratively create value, co-destruction refers to the collaborative

destruction, or diminishment of value by providers and customers (Plé & Cáceres, 2010). Destructive behaviour can be driven by users' perception of the brand's reputation, product involvement, self-confidence, perceived worthiness of complaining and the proximity of others, and attitudes to the business in general (Lau & Ng, 2001).

3.3 Chapter Summary

This chapter introduced and developed a new construct termed 'social media engagement behaviour', referred to as SMEB. This construct includes six specific typologies of SMEB, and considers their valence (positive, negative, and neutral) as well as the relevant intensity of each type of SMEB. The behaviours are modelled in Figure 3.1 and defined in Table 3.1.

The proposed construct of SMEB contributes to the literature through the development of a deeper understanding of the nature of engagement behaviour. It encompasses a new typology of SMEB: specifically describing creating, contributing, consuming, dormant, detaching and destructing behaviours. Whilst previous engagement scholars have explored the customer engagement cycle, a construct for understanding both positive and negative SMEB has not yet been developed. The typology captures both positively-valenced engagement behaviours and negatively-valenced engagement behaviours and considers the intensity of this engagement, reflected at both ends of the spectrum. Further, the development of the SMEB construct provides clarity to managers who wish to understand not only why, but also how customers engage with a focal brand.

Building on the previous discussion, an integrative model of social media content and SMEB is proposed in Chapter 4. The model explores the processes for stimulating positively-valenced social media engagement behaviour and/or dissuading neutral and

Chapter 3: Social Media Engagement Behaviour

negatively-valenced social media engagement behaviour through the use of social media content. The model hypothesises that social media content can be categorised into four main groups, based on its level of *information* (Cvijikj & Michahelles, 2013; De Vries et al., 2012), *entertainment* (De Vries et al., 2012; Taylor et al., 2011), *remunerative* (Cvijikj & Michahelles, 2013; Lee et al., 2013) and *relational* (Muntinga et al., 2011) content. Delivery of these varying forms of content will gratify customer motives for social media use, therefore resulting in expressions of social media engagement behaviours, as discussed further in the following chapter.

CHAPTER 4. Conceptual Model Development

4.1 Introduction

Theoretically grounded academic guidance concerning marketing practice and customer engagement in new-media social networks is limited. The conceptual model and hypotheses developed in this chapter explicate the role of social media content in facilitating engagement behaviour within a social media context. Based on UGT, the conceptual model shows how social media content can stimulate positively- and negatively-valenced engagement behaviour in this forum.

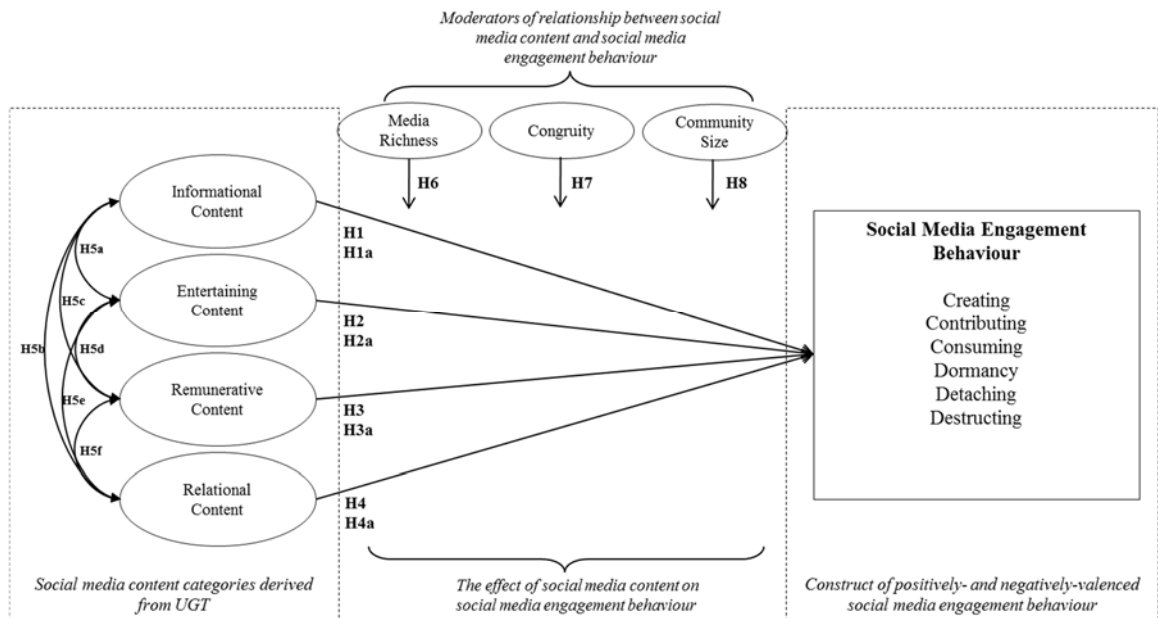
This chapter begins by introducing the conceptual model of social media content and SMEB. The four social media content categories; informational, entertaining, remunerative and relational are discussed. The relationship between social media content and SMEB is introduced, which leads to a discussion of the main hypotheses of the study. Interaction effects are addressed, followed by a discussion of media richness theory and congruity. The moderating roles of media richness, congruity and community size are then justified and hypothesised. The hypotheses of the study are summarised at the end of the chapter in Table 4.1.

4.2 The Conceptual Model

Figure 4.1 illustrates the conceptual model, which positions the four categories of social media content derived from UGT as antecedents to SMEB. Social media content includes informational content, entertaining content, remunerative content and relational content. The impact of each of these content types on each of the types of SMEB (destructing, detaching, dormancy, consuming, contributing and creating) are tested by this model. The concepts of media richness, congruity and community size as

moderators are defined and explored.

Figure 4.1 Conceptual Model of Social Media Content and Engagement Behaviour



In order to understand consumer motives for participation in social media, the classical components of UGT have been employed. This provides an avenue through which to understand consumer gratifications sought through engagement with social media content. The conceptual model depicts the relationships between the four categories of social media content determined from UGT; informational, entertaining, remunerative and relational content and the resultant SMEB.

As discussed in Chapter 2, Section 2.3, UGT is an approach to understanding why and how individuals actively seek out and use specific media to satisfy specific needs (Katz & Foulkes, 1962). UGT provides a framework through which the motivations of individuals seeking a specific type of media can be further understood. In a social media context, users are not passive in their media selection or their use of specific media. Social media is constructed to enable customer interaction and engagement. It is proposed that social media content which satisfies the need for information,

entertainment, remuneration and social interaction will facilitate the way in which consumers choose to engage with brands and other network users within social media sites. The relationships between social media content categories and SMEB are hypothesised in the following section.

4.3 Hypotheses

4.3.1 Informational Content

The relationship between the ability of an advertisement to provide informational content to viewers and advertising acceptance has been well documented (Bauer & Greyser, 1968). Whilst the importance of delivering information through advertisements has been recognised for more traditional media (Rubin, 2002), the role of informational advertising and content in the online, social domain has only recently received attention. Attaining various forms of information has been suggested as the most important reason for consumers to use the internet (Maddox, 1998). Levels of informativeness and attitude towards websites have been found to be positively related (Chen et al., 2002).

De Vries et al. (2012), Cvijikj and Michahelles (2013) and Lee et al. (2013) have empirically demonstrated the relationship between informative content and engagement behaviour. Informative content negatively impacts levels of user engagement in the form of likes and comments, when compared to emotional content (Lee et al., 2013). Similarly, Cvijikj and Michahelles (2013) found that posts which contain information about the brand cause a lower level of engagement compared to entertaining content. This could be explained by the fact that highly informational content may be considered specific to the page in which it is posted, and hence lose its significance when shared by the fans on their own walls, to friends outside of the brand community who might not be interested in that particular information. Further, informational content is not generally

designed to appeal to consumer engagement actions such as commenting and conversing with other users in the same way as entertaining or relational content. Informational content, such as a product release date, is less likely to stimulate conversation amongst fans, compared to content which is entertaining, contains humour, or poses an interesting question to the audience. Drawing from empirical studies exploring the link between informational content and consumer response, it is hypothesised that informational social media content will facilitate positively-valenced SMEB (H1).

The positive consequences of informational content could be challenged, as informational content has been previously found to decrease likes and shares (Lee et al., 2013). Further, customers' who seek informational value from social media content are more likely to consume content rather than interact through comments and discussion (Ko et al., 2005). As such, informational content is further surmised to have a significant relationship with *passive*, positively-valenced SMEB:

H1: The presence of informational content facilitates passive, positively-valenced social media engagement behaviour

Further, it is hypothesised that an optimal level of informational content exists, beyond which increasing levels of informational content will have a detrimental effect on positively-valenced SMEB. This expected relationship is derived from research regarding information overload in advertising messages (Eppler & Mengis, 2004). As receivers of the content have a limited cognitive processing capacity, when information overload occurs it is likely that a reduction in decision quality and attention will occur (Speier, Valacich, & Vessey, 1999). Within computer mediated communication,

information overload refers to the delivery of too many communications, causing an increase in density that gives individuals exposure to more communication elements that they can easily respond to (Hiltz & Turoff, 1985). In both traditional and electronic media, information overload causes individuals to fail to respond, inaccurately and incorrectly respond, systematically ignore or filter out the message, or quit (Hiltz & Turoff, 1985; Sheridan & Ferrell, 1974). Individuals commonly filter and ignore information as the primary effective way of coping with high levels of information overload (Eppler & Mengis, 2004). It is thus hypothesised that high levels of informational content will weaken the relationship with positively-valenced SMEB as predicted by H1.

H1a: High levels of informational content weaken the relationship with positively-valenced social media engagement behaviours.

4.3.2 Entertaining Content

The concept of entertaining advertising has been discussed extensively in literature, with empirical evidence demonstrating that entertaining advertisements lead to positive attitudes toward the advertisements (Taylor et al., 2011), attitude toward the brand, and desire to return to the websites (Raney, Janicke, & Tamborini, 2013). Entertaining advertisements are said to motivate users to consume, contribute to and create brand related content online (Muntinga et al., 2011).

Social media content is considered entertaining when it includes small talk, banter, or attempts to appeal to a person's emotions. This has been empirically found to increase engagement behaviour in the form of likes and comments (Lee et al., 2013). Further, entertaining social media content may not focus on the brand or product, but may be

written in the form of a teaser, slogan or word play, which increases the number of likes, comments and shares made on Facebook posts (Cvijikj & Michahelles, 2013). However, entertaining social media content has also been found to have the opposite effect, failing to facilitate active SMEBs as it may not be related to the brand and does not offer the consumer any relevant informational value (De Vries et al., 2012).

In this study, entertaining content is proposed to be a driver of positively-valenced SMEB. It is argued that if a brand post is entertaining, brand fans' motivations to engage with the content are met. Hence, brand fans may exhibit a more positive response toward entertaining brand posts compared to non-entertaining brand posts. Based on this foundation, it can be hypothesised that entertaining brand posts will facilitate active, positively-valenced SMEB:

***H2:** The presence of entertaining content facilitates active, positively-valenced social media engagement behaviour.*

It is further hypothesised that with greater levels of entertaining content, the relationship with positively-valenced engagement behaviour will be weakened. An optimal level of entertaining content is expected to exist, beyond which information overload will occur and the user will be presented with too many cues to correctly process (Hiltz & Turoff, 1985). Hence;

***H2a:** High levels of entertaining content weaken the relationship with positively-valenced social media engagement behaviours.*

4.3.3 Remunerative Content

The level of remuneration offered to the consumers has been studied as an antecedent of

consumer decisions to contribute to online communities (Muntinga et al., 2011). Brands often use monetary incentives including loyalty points, lucky draws, and price promotions to encourage engagement in online brand communities (Aksoy, van Riel, Kandampully, Wirtz, den Ambtman, Bloemer, Horváth, Ramaseshan, van de Klundert, & Gurhan Canli, 2013). Customers may engage in social media as they expect to gain some kind of reward, such as an economic incentive, job-related benefit or personal wants (Muntinga et al., 2011). Rewarding or remunerating content may include monetary incentives, giveaways, prize drawings or monetary compensations (Füller, Bartl, Ernst, & Mühlbacher, 2006).

Monetary benefits or incentives are not required for community members to make contributions, and thus it is not hypothesised that a positive relationship exists between remunerative offers and SMEB. Limited support has been found for the use of monetary incentives in stimulating engagement (Dumas, Begle, French, & Pearl, 2010). While monetary incentives have been shown to increase short-term engagement of online community members, a stronger effect has been observed for passive compared to active members (Aksoy et al., 2013). Monetary rewards decrease active online community members intentions to participate, suggesting a reduction of active SMEB as a result of this content type (Aksoy et al., 2013). While some authors (van Doorn et al., 2010) suggest that firms can successfully affect customer engagement behaviour by providing rewards and other incentives to customers, this relationship has not been empirically tested. Füller et al. (2006) discussed that whilst managers often believe the offering of monetary incentives such as bonus points, drawing prizes, or sharing product success results in positive consequences for engagement, they are often mistaken. Rather, factors such as the ability to learn something new, the possibility to get

exclusive content and the ability to gain acknowledgement and support from the community have a far greater impact on community members' motivation to contribute to virtual communities (Füller et al., 2006).

Social media content that offers remuneration to fans includes contests and sweepstakes organised within the Facebook brand community (Cvijikj & Michahelles, 2013). This content is negatively related to the number of likes on a post, but has been found to be a significant, positive factor in predicting the number of comments. Remunerative content had no effect on the number of shares (Cvijikj & Michahelles, 2013). Hence, it is expected that a low level of engagement would occur as a result of a post containing a reward or offer, for example 'consuming' rather than contributing or creating behaviour (Muntinga et al., 2011). Content which includes economic or remunerative details such as price mention or deal/promotion has a negative impact on the number of comments (Lee et al., 2013). Further, this form of content also has a negative impact on the number of likes obtained on the post. Hence, it may be argued that content which provides remunerative or economic benefit to the user leads to less active expressions of SMEB;

***H3:** The presence of remunerative content facilitates passive, positively-valenced social media engagement behaviour.*

In line with H1a and H2a as previously discussed, with increased levels of content it can be hypothesised that users will experience information overload;

***H3a:** High levels of remunerative content weaken the relationship with positively-valenced social media engagement behaviours.*

4.3.4 Relational Content

Customers are motivated by social needs when creating user generated content online, as they find it a comfortable space in which to reveal feelings and share views and opinions (Leung, 2009). Within Facebook, users are strongly motivated by socialising needs when participating in specific interest groups (Park et al, 2009). The socialisation benefits gained include gaining support from other members, meeting new and interesting people, and a developing sense of belonging to the community (Park et al., 2009). In virtual communities, socialising demonstrates a level of customer engagement, depicted by two-way, non-functional interactions through which customers develop attitudes, norms and community language (Brodie et al., 2013). Customers who are engaged in social media platforms benefit by gaining an informal sense of camaraderie with other users (Chen, 2011). Customers highly motivated by socialisation motivations frequently participate in human-to-human interactions as defined by Ko et al. (2005), rather than human-message (content) interactions.

It is hypothesised that relational social media content which stimulates interaction amongst customers will be successful in facilitating positively-valenced SMEB;

***H4:** The presence of relational content facilitates active, positively-valenced social media engagement behaviour.*

It is also hypothesised that expressions of SMEB may be dependent on the level of relational content embedded within a post, again supported by the notion of information overload;

***H4a:** High levels of relational content weaken the relationship with positively-valenced social media engagement behaviours.*

4.3.5 Simultaneous Presence of Social Media Content Categories

Within social media, there is potential for content to possess multiple cues and simultaneously contain entertaining, informative, remunerative and relational content.

The four social media content categories outlined in H1 to H4 are therefore not mutually exclusive.

In traditional media research authors have found that high levels of informational value, combined with high levels of entertainment value can increase the likelihood that consumers will stop viewing a TV commercial (Elpers, Wedel, & Pieters, 2003).

Research supporting this concept suggests that consumers access different processing styles when exposed to utilitarian and hedonic content, and that these processing styles may be incompatible when required at a specific point in time (Bless, 2000; Fiedler, 2001; Forgas, 2001). Highly entertaining advertisements are said to require consumers to focus on their general knowledge structures and free associations, compared to informational content which requires consumers to focus on the details and data within the message (Elpers et al., 2003). These processing styles are not mutually exclusive (Fiedler, 2001). However they do pose conflicting demands on consumers. Based on this rationale, it has been suggested that when faced with conflicting processing demands simultaneously (for example, exposure to highly informational and highly relational content), consumers are more likely to avoid exposure to the content and therefore disengage.

Previous studies of online brand content and resultant user engagement have also explored the interaction between content types. Lee et al. (2013) identify a positive interaction effect between emotional and informational content. This finding conflicts with Elpers et al. (2003) who found that when these forms of content were combined,

consumers avoided the content. Adopting the stream of thought proposed by Elpers et al. (2003) and the conflict of information processing styles (Bless, 2000; Fiedler, 2001; Forgas, 2001) it can be predicted that as utilitarian and hedonic content place conflicting demands on consumers, they are less likely to facilitate positive active engagement behaviours. Hence, it would be expected that utilitarian social media content (informative and remunerative) presented simultaneously with hedonic social media content (entertaining and relational) will cause a conflict of processing styles, resulting in a lack of attention or content avoidance by the user. However, content types that have required a similar processing style will have a positive effect on engagement, facilitating positively-valenced SMEB. Thus:

H5a: The simultaneous presence of informational and entertaining content facilitates negatively-valenced SMEBs.

H5b: The simultaneous presence of informational and relational content facilitates negatively-valenced SMEBs.

H5c. The simultaneous presence of informational and remunerative content facilitates positively-valenced SMEBs.

H5d. The simultaneous presence of entertaining and remunerative content facilitates negatively-valenced SMEBs.

H5e: The simultaneous presence of entertaining and relational content facilitates positively-valenced SMEBs.

H5f: The simultaneous presence of remunerative and relational content facilitates negatively-valenced SMEBs.

4.3.6 Moderating Variables

There are three variables depicted in Figure 4.1 which are expected to moderate the relationship between social media content and SMEB. The hypothesised relationships

between social media content and SMEB are either directly or inversely related to the three moderating variables; media richness, community size and congruity.

Media Richness

Media Richness Theory (Daft & Lengel, 1986) is based on the assumption that the goal of any communication is the resolution of ambiguity and the reduction of uncertainty. It states that media differ in the degree of richness they possess, measured by the amount of information they allow to be transmitted in a given time interval. Media Richness Theory is a widely known theory of media use, and posits that communication efficiency will be improved by matching media to users' information needs (Daft & Lengel, 1986). Media richness is a function of characteristics: the ability to handle multiple information cues simultaneously, the ability to facilitate rapid feedback, the ability to establish a personal focus, and the ability to utilise natural language. Whilst a majority of studies compare richness between forms of media, e.g. telephone vs. direct mail marketing, the new communication landscape provides marketers an opportunity to provide both 'rich' and 'lean' advertising and marketing content, within a single media type such as a website.

Recently, media richness has been applied in the field of online and digital marketing (Shaw, Chen, Harris, & Huang, 2009). Online rich media include a range of interactive methods that display motion and exploit sensory traits such as video, audio and animation (Rosenkrans, 2009). The term 'rich media' provides an umbrella expression to describe online content that has multimedia elements such as sounds, video, or content that moves when a user clicks on the page that features the content (Shaw et al., 2009). Previous research has found that communication media such as face-to-face meetings have more richness than communication media and written documents as the

latter lack nonverbal feedback cues such as facial expression, direction of gaze, posture and dress (King & Xia, 1997). However, in a virtual, social environment, individuals can perform communication in a style that is similar to face-to-face communication. This results in an increased richness of content within social media platforms (Cheung et al., 2011).

Stemming from the foundations of Media Richness Theory, the term ‘vividness’ has been applied to studies of brand communication in the online sphere. Vividness reflects the richness of a brand post’s formal features or the degree to which a brand post stimulates the different senses (De Vries et al., 2012). Vividness can be achieved by the inclusion of dynamic animations, colours and pictures (Cho, 1999; Fortin & Dholakia, 2005). The degree of vividness can differ in the way that it stimulates multiple senses. For example a video is more vivid than a picture because a video stimulates sight and hearing as opposed to just sight (De Vries et al., 2012). Highly vivid banner advertisements are more effective in generating intentions to click (Cho, 1999) and click through rates (Lohtia, Donthu, & Hershberger, 2003). Within social media, vividness is most commonly operationalised on a low to high scale (Cvijikj & Michahelles, 2013; De Vries et al., 2012). Social media content which contains only text is categorised as low vividness. Content that is categorised as ‘moderately vivid’ includes text and a picture or photo. Finally, highly vivid social media content is presented in the form of a video. Higher levels of vividness have been significantly and positively related to the number of ‘likes’ on the content (Cvijikj & Michahelles, 2013; De Vries et al., 2012).

It is proposed that the richness of social media content (low, medium and high) moderates the relationships between social media content and SMEB as outlined in Hypothesis 6. As scholars have demonstrated significant and positive relationships

between highly rich content and engagement behaviours such as liking (Cvijikj & Michahelles, 2013; De Vries et al., 2012) and clicking (Cho, 1999; Lohtia et al., 2003) it is hypothesised that the moderation will be positive:

H6: The strength of the relationship between social media content and social media engagement behaviour is directly related to media richness.

Congruity

The extent to which social media content is congruent or incongruent to the brand may enhance or mitigate different forms of SMEB. It is proposed that entertaining, informational, remunerative and relational posts vary in their degree of congruity with the brand.

Congruity concerns the extent that structural correspondence is achieved between the entire configuration of attribute relations associated with an object, such as a product, and the configuration specified by the scheme (Meyers-Levy & Tybout, 1989). Authors have proposed that the concept of congruity is closely related to the theoretical underpinnings of Hastie's (1980) Associative Storage and Retrieval Model. This model proposes that information which is *incongruent* with one's expectation would be recalled better than information which is *congruent* with one's expectation. Hastie (1980) proposed that when consumers receive incongruent information, they spend more time processing and comprehending the information. The time taken for the encoding of incongruent information causes the formation of a larger number of associative paths, between incongruent messages and the present knowledge stored in the consumer's memory. Following Hastie's (1980) propositions, the theory was tested and supported in a marketing context (Heckler & Childers, 1992; Houston, Childers, &

Heckler, 1987; Lee & Mason, 1999).

Scholars have looked at the effects of congruity and incongruity of advertising in a range of contexts. It has been proposed that incongruent information leads to greater brand recall (Hastie, 1980), enhanced arousal (Gardner, Mitchell, & Russo, 1985), curiosity and interest (Muehling & Laczniak, 1988), and increased message involvement (Lee, 2000). Further, when a mismatch occurs between one's expectations and the product information presented, consumers are said to engage in more elaborate analytical processing and evaluation (Goodstein, 1993; Sujan, 1985). Similarly, information that is moderately incongruent has been found to increase consumer attention (Halkias & Kokkinaki, 2013). Hence, it is hypothesised;

H7: *The strength of the relationship between social media content and social media engagement behaviour is inversely related to congruity.*

Community Size

Research in sociology has shown that increased community size has a negative effect over the interactions between individuals (Simmel, 1950). Participation in smaller communities has been found to result in stronger interpersonal relationships and a greater tendency for social engagement (Dholakia et al., 2004). Members of a smaller community are likely to be more connected to the brand community, resulting in a higher level of brand engagement. In larger communities, scholars have suggested that there is likely to be a loss of essential intimacy required for a successful level of interaction and participation (McWilliam, 2012).

In smaller online communities, users may join more often for friendship and socialisation motives, therefore having a higher propensity to engage within the

community (Algesheimer et al., 2005). It has also been suggested that in smaller communities, there is a sense of ‘knowing one another’ which leads to stronger and multifaceted interpersonal relationships between consumers, and a greater interest in engaging in social activities (Algesheimer et al., 2005; Dholakia et al., 2004).

Moreover, members of smaller online communities have been found to develop higher community loyalty and engage in word of mouth for the community and for the brand (Scarpi, 2010). Community trust and community and perceived social value are higher for users of smaller community sizes, compared to larger community sizes (Hsiao & Chiou, 2012).

The size of the community is expected to moderate the relationship between social media content and SMEB. This moderation is expected to be negative, as it is expected that the strength of the relationship between social media content and SMEB will weaken as the community size is increased:

H8: *The strength of the relationship between social media content and social media engagement behaviour is inversely related to community size.*

4.4 Chapter Summary

Building upon the theoretical background of the study, and literature review presented in Chapter 2 and Chapter 3, this chapter proposed the conceptual model of social media content and SMEB. The model posits that social media content categories, derived from UGT can be positioned as antecedents of SMEB. The conceptual model presented in this chapter also considers the moderating role of media richness, content congruity, and community size. The hypotheses of the study as developed within this chapter are summarised in Table 4.1. The research design and methodology for testing these

hypotheses is presented in Chapter 5.

Table 4.1 Hypotheses

H#	Hypothesis
H1	The presence of informational content facilitates passive, positively-valenced social media engagement behaviour.
H1a	High levels of informational content weaken the relationship with positively-valenced social media engagement behaviours.
H2	The presence of entertaining content facilitates active, positively-valenced social media engagement behaviour.
H2a	High levels of entertaining content weaken the relationship with positively-valenced social media engagement behaviours.
H3	The presence of remunerative content facilitates passive, positively-valenced social media engagement behaviour.
H3a	High levels of remunerative content weaken the relationship with positively-valenced social media engagement behaviours.
H4	The presence of relational content facilitates active, positively-valenced social media engagement behaviour.
H4a	High levels of relational content weaken the relationship with positively-valenced social media engagement behaviours.
H5a	The simultaneous presence of informational and entertaining content facilitates negatively-valenced social media engagement behaviours.
H5b	The simultaneous presence of informational and relational content facilitates negatively-valenced social media engagement behaviours.
H5c	The simultaneous presence of informational and remunerative content facilitates positively-valenced social media engagement behaviours.
H5d	The simultaneous presence of entertaining and remunerative content facilitates negatively-valenced social media engagement behaviours.
H5e	The simultaneous presence of entertaining and relational content facilitates positively-valenced social media engagement behaviours.
H5f	The simultaneous presence of remunerative and relational content facilitates negatively-valenced social media engagement behaviours.
H6	The strength of the relationship between social media content and social media engagement behaviour is directly related to media richness.
H7	The strength of the relationship between social media content and social media engagement behaviour is inversely related to congruity.
H8	The strength of the relationship between social media content and social media engagement behaviour is inversely related to community size.

CHAPTER 5. Research Design

5.1 Introduction

Following the discussion of the hypothesis development and conceptual model in the previous chapter, chapter five outlines the research design adopted for testing the conceptual model and hypotheses. The chapter outlines the research objectives and questions of the study, the philosophical stance and research method decisions. The process of content analysis including identification of the appropriate theory and rationale for the study, conceptualisation decisions, operationalisation of measures, coding, sampling, training, and reliability testing and reporting decisions are presented. The chapter then presents the methods adopted for hypothesis testing: binary logistic regression and process analysis, followed by the chapter summary.

5.2 The Research Objective and Questions

The specific objectives of this research were:

1. To gain a deeper understanding of social media content categories through the application of the UGT perspective.
2. To offer new insights into the characteristics, levels and valence of social media engagement behaviour.
3. To determine the impact of social media content (categorised as informational, entertaining, remunerative and relational) on social media engagement behaviour.

In order to achieve these aims, two phases of research design are required. Phase 1 involves QCA to determine the presence of information, entertaining, remunerative and relational content within social media posts. In addition, QCA is used to code and

classify elements of the dependent variable, SMEB.

Upon completion of QCA and corresponding coding of the independent and dependent variables of the study, hypothesis testing was conducted. Phase two, hypothesis testing, was completed using binary logistic regression to test the direct relationships between social media content presence, levels, and SMEB. Hayes (2013) PROCESS Modelling was used to test the moderating effects of media richness, congruity and community size. This approach to quantitative analysis allowed testing of Hypotheses 1 to 7 as developed in Chapter 4.

5.3 Philosophical Stance

The philosophical stance adopted is an important influencing factor when designing a research methodology (Weaver & Olson, 2006). A positivist approach to research is based on knowledge gained from positive verification of observable experience through scientific methods (Cole, 2006). The positivist philosophical stance supports the notions of prediction and control, in that there are general patterns of cause-and-effect that can be used as a basis for predicting and controlling natural phenomena, with the goal of research being to discover these patterns. The stance also supports empirical verification through observations and measurement as accurate sources of data. Finally, following a positivist stance, research is understood to be ‘value-free’ providing a strict methodological protocol is followed, allowing objectivity to be achieved and subjective bias to be removed. In this study, strict methodological protocols including the processes of QCA, binary logistic regression and process analysis were implemented.

Within this study, the author views reality; social media content and SMEB, as independent of the researcher. This reality is based on quantitative data, derived from

social media content and customer behaviours collated over a twelve month period.

Based on this positivist ontology, the research objectively explains this reality (social media content and its relationship with SMEB). Under the positivist model, this objective knowledge can be provided through science and data, and the purpose of the researcher is to independently expose the objective truths (Weaver & Olson, 2006).

A key tenet underlying the positivist view is that only science may produce objective knowledge. Therefore, the purpose of the research is to capture and accurately reflect objective truth and reality, independent of the researcher. The role of the researcher is therefore as an outsider or objective observer, who gathers data and reports objectively on the data. As the positivist position is situated within the epistemological tradition of objectivism, where objects in the world have meaning that exists independently from any subjective consciousness of them (King & Horrocks, 2010), the research design aims to provide objective knowledge, unbiased by the researcher and research process. This stance is adopted due to its appropriateness and applicability to this research study, with the quantitative methodology discussed in the following sections based on the positivist paradigm.

5.4 The Research Methods

The following sections outline the nature of the research problem and context, and the corresponding research approach to empirical investigation.

5.4.1 Context of the Study

This study is conducted with data derived from the Australian wine industry. Wine is an experiential product (Bruwer & Alant, 2009), and as Australian wine brands compete to attract and retain consumers, many are embracing social media to reach their consumers

and communicate their brand experience, quality and personality (Vinography, 2012). Further, research has suggested that 90 percent of wine drinkers use Facebook for at least 6.2 hours per week (Breslin, 2013). Some wine brands are achieving success through social media, with documented examples demonstrating that small and large wineries have achieved a positive return on investment through the implementation of successful social media strategies. Several scholarly studies have explored social media practices within the wine industry. Of wineries studied in Australia, Canada, New Zealand, Spain, Italy, South Africa and the US, 35% have reported using social media, with the primary reasons of communicating with customers about events at the winery, and promoting wines (Alonso et al., 2013). Scholars have also suggested that social media assists with wine sales as word of mouth is particularly effective among wine consumers (Leigon, 2011), with the socialisation aspect of social media acting as an appropriate fit with wine, allowing consumers to exchange information and encourage others to try different wines (Wilson & Quinton, 2012).

Marketing practitioners have been quick to recognise the value of social media platforms, rapidly integrating such platforms into the marketing mix (Sinclair, 2014; Stelzner, 2014). There are currently more than 2,500 Australian and New Zealand wineries with a presence on Facebook (Mastermind, 2015). However, many practitioners have identified a lack of awareness and knowledge regarding effective social media strategy, creating a significant challenge as practitioners navigate through this forum with little guidance and empirical understanding (Stelzner, 2014).

Regardless, over 80 percent of brands are said to use the social media platform Facebook, instigating a significant crowding effect as the competition for customer attention within social media platforms intensifies (Koetsier, 2013). Customers are

inundated with the proliferation of social media content, causing a challenge for wine brands as they attempt to succeed in this environment. Without empirical understanding of how to effectively engineer content, managers will fail in their endeavours to attract and engage social media users (Lee et al., 2013).

Whilst studies have demonstrated that social media has been accepted and is widely used as a communication tool in the wine industry, research concerning customer engagement with wine brand communication via social media remains scarce. In order to explore SMEB within social media, this study extracts and analyses engagement behaviour through the use of Facebook Insights data and NCapture, discussed in the following section.

5.4.2 The Research Design

The research design consists of two phases. The first phase comprises a quantitative content analysis of social media content and SMEB. The data for this phase is collected from Facebook Insights and NCapture (see Section 5.4.3). The quantitative content analysis was conducted following Neuendorf's (2002) process. This involved determination of the appropriate theory and rationale to guide the categories, conceptualisation decisions, operationalisation of measures, development of human and computer coding schemes, sampling, training and initial reliability, coding, tabulation and reporting. Each of these stages is discussed throughout Section 5.5.3 of this chapter.

The second phase of the research design involved hypothesis testing using binary logistic regression, and moderation testing using (Hayes, 2013) conditional process analysis. This will be discussed later in Section 5.7.

5.4.3 Data Collection Sources

Data required to complete the two phases of the research were collected from two sources: Facebook Insights and NCapture.

Facebook Insights

Facebook Insights is a tool provided to administrators of Facebook brand pages to enable high-level monitoring of the activities on the Facebook page. Facebook Insights allows administrators to download data concerning the performance of a post, such as the number of people the post reached, the number of people who clicked the post, and the number of people who liked, commented on or shared the post. If the post is a video, Insights data also shows the total number of video views, and length of video views. Insights data provides page administrators with an 'Engagement Rate'. Facebook defines the 'Engagement Rate' as a post level metric, calculated as the percentage of people who saw a post (post reach) and liked, shared, clicked or commented on it (Facebook, 2015).

Despite these capabilities, there are some limitations to the use of Facebook Insights data. Firstly, the tool is provided exclusively to administrators of the Facebook page, meaning analysis of multiple brands data, or competitor data is allowed only with permissions and access granted by the page owner. Secondly, whilst Facebook Insights data collects the 'number of comments' as a metric of engagement, the content of these comments is not captured. A post may have received a significant number of comments but Insights data will not display the content or author details of the comment. Finally, the features of Facebook Insights are controlled by Facebook. This may cause a limitation in that a change in policy could mean that a metric considered valuable to a study may become no longer available, or a change in measurement structure may thus

affect the analysis. For example, in March 2014 Facebook removed the ‘People Talking About This’ (PTAT) metric from Page Insights. The PTAT metric split into separate elements including page likes and engagement rate (Facebook, 2014). Many of these shortcomings of the Facebook Insights tool can be overcome through the simultaneous use of the program ‘NCapture’.

NCapture

NCapture is a web browser extension, developed by QSR International. It allows researchers to quickly and easily capture content including web pages, online PDF’s and social media for analysis within NVivo 10. NCapture allows the downloading of Facebook wall posts and comments from any URL, meaning that the access and permissions required when relying on Facebook Insights data are no longer necessary. NCapture collects similar data to Facebook Insights, including the content, type and timing of brand page posts, number of likes and number of comments. NCapture has an advantage over Facebook Insights in its ability to collect the content and authorship of fan comments, relevant to each moderator post. Depending on the individual fan’s privacy settings, NCapture also attempts to collect demographic data such as gender, age and location for the users who engage with a post. Data missing from the NCapture extension includes the number of shares made on a post, post reach, the number of clicks, video views and amount of negative feedback received by the post, all functions which are available through Facebook Insights.

5.4.4 Data Collection

By combining the available data sources of Facebook Insights and NCapture, a comprehensive collection of behavioural data related to social media content and SMEB was created. Table 5.1 provides an overview of the available metrics from Facebook

Insights and NCapture data.

Table 5.1 Facebook Insights and NCapture Data Metrics

Metric	Data source	Description
Post Type	Both	Status, link, photo, video
Comments	Both	Total number of comments made in response to the page post
Likes	Both	Total number of likes received by the page post
Shares	Insights	Total number of shares received by the page post
Created Time	Both	Date, day and time that the post was created
Clicks to play	Insights	Relevant to video post type only. Total number of times the video was clicked to play
Link click	Insights	Total number of clicks on a link within the page post
Other click	Insights	Number of clicks on the page post (excluding link clicks, clicks to play video and photo view clicks)
Photo view	Insights	Total number of times the page post photo was viewed
Post reach	Insights	Post reach is the number of people who have seen the post. The post counts as reaching someone when it's shown in the "News Feed". Figures are for the first 28 days after a post was created and include people viewing the post on desktops and mobiles.
Negative Feedback	Insights	Total number of negative feedback clicks, separated into four metrics; 'hide post', 'hide all posts', 'report as spam' and 'unlike page'
Individual or brand tagged	NCapture	The name, brand or other page tagged within the post
Picture	NCapture	A link to the picture/photo file provided with the brand's post
Video	NCapture	A link (URL) to the video provided with the brand's post
Commenter username	NCapture	Username of comment author
Comment text	NCapture	Content of the comment made by author
Comment likes	NCapture	Number of likes received on the comment
Comment time	NCapture	Time the comment was made
Commenter gender and age*	NCapture	Gender and age of the comment author if listed in personal profile
Commenter location*	NCapture	Location of comment author when comment was posted
Commenter relationship status*	NCapture	Relationship status of comment author if listed in personal profile
Commenter hometown*	NCapture	Hometown of comment author if listed in personal profile
Commenter religion*	NCapture	Religion of comment author if listed in personal profile

*dependent on user privacy settings.

As access to Facebook page insights is restricted to page administrators, an introductory email was sent to wine brands outlining the study and requesting access to the required

data (see Appendix A). Facebook data for 12 Australian wine brands that responded and agreed to participate in the study was collected over a twelve month period, beginning on the 1st of January 2013 and concluding on the 31st of December 2013. The brand profiles and number of posts collected is presented in Table 5.2. The names of the brands included in the study are not provided due to confidentiality agreements.

The total number of posts in the data set was 2,236. The total number of fans across the 12 brand pages was 54,069. The number of fans was recorded as the current, exiting number of fans at the time the dataset was downloaded from the Facebook Insights platform.

Table 5.2 Brand Profiles

Brand	Region	No. Page fans at time of data collection	No. posts (Jan 01 2013 – Dec 31 2013)
A	Barossa Valley, SA.	916	25
B	Barossa Valley, SA.	1,348	355
C	Yarra Valley, VIC	1,330	145
D	Margaret River, WA	4,500	295
E	McLaren Vale, SA	7,496	383
F	McLaren Vale, SA	13,958	226
G	McLaren Vale, SA	12,551	179
H	McLaren Vale, SA	1,434	47
I	McLaren Vale, SA	3,749	177
J	Eden Valley, SA	3,684	191
K	Barossa Valley, SA	1,495	106
L	Margaret River, WA	1,608	107
TOTAL		54,069	2,236

Facebook Page Insights also allowed access to specific post metrics for each of the 2,236 posts made in 2013 as displayed in Table 5.3.

Table 5.3 Facebook Insights Post Metrics

Insights Post Metric	Description
Type	Status, link, photo, video

Comments	Total number of comments made in response to the page post
Likes	Total number of likes received by the page post
Shares	Total number of shares received by the page post
Clicks to play	Relevant to video post type only. Total number of times the video was clicked to play
Link click	Total number of clicks on a link within the page post
Other click	Number of clicks on the page post (excluding link clicks, clicks to play video and photo view clicks)
Photo view	Total number of times the page post photo was viewed
Post reach	Post reach is the number of people who have seen the post. The post counts as reaching someone when it's shown in the "News Feed". Figures are for the first 28 days after a post was created and include people viewing the post on desktop and mobile.
Negative Feedback	Total number of negative feedback clicks, separated into four metrics; 'hide post', 'hide all posts', 'report as spam' and 'unlike page'
Created Time	Date, day and time that the post was created

Analysis of the content and nature of each comment allowed for a more rigorous understanding of SMEB. As Facebook Insights data does not include access to fan comments, NCapture was employed. A total of 5,699 comments were made in response to the 2,236 posts as shown in Table 5.4.

Table 5.4 Number of Comments by Brand

Brand	Region	No. Page fans at time of data collection	Total number of comments
A	Barossa Valley, SA.	916	40
B	Barossa Valley, SA.	1,348	283
C	Yarra Valley, VIC	1,330	331
D	Margaret River, WA	4,500	349
E	McLaren Vale, SA	7,496	701
F	McLaren Vale, SA	13,958	2216
G	McLaren Vale, SA	12,551	382
H	McLaren Vale, SA	1,434	165
I	McLaren Vale, SA	3,749	173
J	Eden Valley, SA	3,684	652
K	Barossa Valley, SA	1,495	171
L	Margaret River, WA	1,608	206
Total		54,069	5,569

In order to analyse the content of the 2,236 posts collected, and the comments made with respect to those posts, a quantitative content analysis (QCA) was conducted, as described in the following section.

5.5 Content Analysis

This section defines and describes the quantitative content analysis process adopted within this study.

5.5.1 Defining Content Analysis

Content analysis is most commonly defined as a research technique for the objective, systematic and quantitative description of the manifest content of communication (Berelson, 1952). The objective, systematic and quantitative nature of content analysis remains central to other definitions of the concept, including Carney (1972) who describe content analysis as a research technique for making inferences by objectively and systematically identifying specified characteristics of messages, and Stone, Dunphy, Smith, and Ogilvie (1968) who describe content analysis as a research technique for making inferences by systematically and objectively identifying specified characteristics within texts.

This research follows Neuendorf's (2002) approach to quantitative content analysis (QCA), suitable for this study due to its focus on summarising the quantitative analysis of messages. Under this approach, QCA relies on aspects of scientific method, including attention to objectivity-intersubjectivity, a priori design, reliability, validity, generalisability, replicability and hypothesis testing. Noteworthy about Neuendorf's definition of content analysis is the argument that media content analysis is quantitative research, rather than qualitative. QCA is widely accepted as the systematic and replicable examination of symbols of communication, which have been assigned numeric value according to valid measurement rules, and the analysis of those relationships involving those values using statistical methods, in order to describe the communication (Riffe, Lacy, & Fico, 2014).

QCA was deemed suitable in this study as it allows for a non-intrusive research method incorporating examination of a wide range of data over an extensive time period.

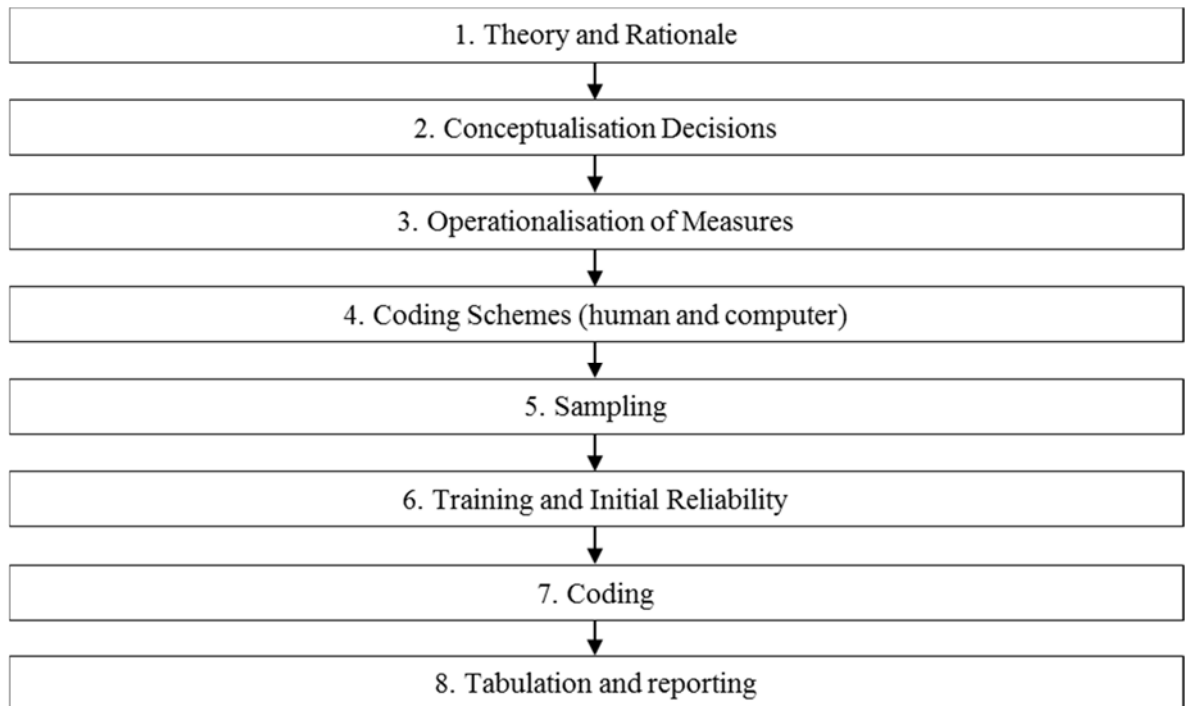
Another benefit of QCA is that it can be conducted frequently (Neuendorf, 2002).

5.5.2 Purpose of Content Analysis

There are five main purposes of conducting a QCA of Facebook brand posts and SMEB relevant to this study. Firstly, QCA allows the researcher to describe substantive characteristics of message content. The second purpose of QCA is to describe formal characteristics of message content. Thirdly, QCA allows researchers to make inferences about the producers of content, in this study, the wine brands. Fourth, QCA allows researchers to make inferences about the audiences of content, or the social media users demonstrating SMEB. Finally, through QCA, researchers can predict the effects of content on audiences (Berelson, 1952).

5.5.3 Content Analysis Process

The first necessary step in the research design is to analyse social media content according to the four categories as predetermined through the application of UGT. This involves a process of QCA, adopting both human and computer coding techniques. Designing and conducting a content analysis involves an 8-step process as suggested by Neuendorf (2002); determination of the appropriate theory and rationale for the research, conceptualisation decisions and operationalisation of measures, coding decisions, sampling, training and initial reliability, coding, and tabulation and reporting as displayed.

Figure 5.1 Quantitative Content Analysis Process*Step 1. Theory and Rationale*

The preliminary step in designing a QCA involves determining what content is to be examined, and why. This involves consideration of the theories and perspectives that indicate that the particular message content is important to study. This step also involves determining the hypotheses of the study. The content analysis builds upon the theory and rationale of the study as developed throughout Chapter 2 regarding UGT.

Step 2. Conceptualisation decisions

The second step of designing QCA involves determining what variables will be used in the study and how they are defined conceptually. There are 12 conceptual variables in the study. The four independent variables of the study are derived from the underpinning UGT; informational, entertaining, remunerative and relational content (refer to Chapter 2, Section 2.3.2 for conceptualisation). The SMEB construct as developed and conceptualised within Chapter 3 provides the dependent variable of the

study, comprised of six typologies of behaviour: creating, contributing, consuming, dormancy, detaching and destructing. The three moderating variables: media richness, congruity and community size are conceptualised and discussed in Chapter 4, Section 4.3.6.

Step 3. Operationalisation of measures

Following the conceptualisation decisions made regarding each variable of the study as presented in the preceding section, the next stage of conducting a content analysis involves determining the operationalisation of measures. In order for the research to be successful, codes and corresponding measures must exhibit three traits. Firstly, they must be exhaustive. Every aspect of the sample (social media content and SMEB) that is of relevance to the research must have an identifying code. The second rule of coding is that each code must be exclusive. Therefore, codes cannot overlap in definition. Finally, the coding categories must be enlightening. It is crucial that codes deconstruct the focal content in a way that would be analytically relevant and interesting. In order to ensure this, codes should be based on previously established norms in the literature (Riffe et al., 2014) in addition to being relevant to the research questions.

The measures selected for each variable matched the conceptualisations as specified in Step 2. The researcher then selected what unit of data collection was to be used. Further, the researcher tested if the variables were measured well (categories that are exhaustive and mutually exclusive). This study adopted custom dictionaries for text analysis in order to measure the presence of social media content.

Dictionaries for text analysis

A dictionary is a set of words, phrases, parts of speech, or other word based indicators

that is used as the basis for a search of texts (Neuendorf, 2002).

For the purpose of this study, development of a ‘custom dictionary’ was deemed appropriate. The dictionaries constructed by the researcher are referred to as custom dictionaries and within this study included variables selected from theory, past research and researcher immersion in the message pool. By using a large number of narrowly defined definitions (e.g. ‘discount’ and its synonyms such as reduction, price cut, mark down, sale) the researcher had the option of creating a variety of flexible index combinations of the dictionaries (Neuendorf, 2002). Dictionaries are often emergent from the data, as is the case in this study. This approach to dictionary construction is to base the lists on actual word frequencies from the message sample (Neuendorf, 2002). This was achieved through a basic quantitative output from the message sample, a word count, which reported the frequency of each word occurring in a text of a set of texts.

The qualitative data analysis computer software program, ‘NVivo 10’ was used to design and develop the custom dictionaries applied for this study. A word frequency report of the text-based data within the sample was created using the Word Frequency Query function of NVivo10. The test demonstrated the top 200 words used across the dataset of social media posts (n = 2,236). The frequency report is presented in Appendix B and was used to develop and refine the coding schemes and operationalisation of social media content. The coding schemes for all variables in the study are provided in the following sections and corresponding tables.

Social media content operationalisation

In order to understand SMEB with social media content, the classical components of UGT have been employed. This provides the possibility to understand the responses to

different dimensions of gratification, which lead towards customer engagement. The proposed theoretical model suggest that if the content posted by a page moderator on a Facebook brand pages satisfies particular user needs and is designed well, this would lead to a higher level of positively-valenced SMEB.

As discussed in Chapter 4, Section 4.3, it is hypothesised that marketing communication content can be categorised into four main groups. These groups are informational content, entertaining content, remunerative content and relational content. Each of the four categories of social media content as shown in Table 5.5 and their relative coding schemes are described in the following sections.

Table 5.5 Social Media Content Categories

Social Media Content Categories	
Informational	Entertaining
Remunerative	Relational

Informational content: This form of content relates to content aimed at specifically delivering category, brand and product related information to community members. Informational content may contain details on price, availability, location and product names (Lee et al., 2013). Further, information content may contain explanatory images referring to the brand's location, facilities and products. Information may also relate to brand contact details such as the provision of contact phone numbers, email addresses, links to a website and opening hours where applicable. In order to capture these elements, the coding scheme displayed in Table 5.6 has been developed based on previous research testing informational content presence (Cvijikj & Michahelles, 2013; De Vries et al., 2012; Lee et al., 2013).

The informational content category contains 24 codes, shown in Table 5.6.

Additionally, this table shows the custom dictionary applied to mechanically generate indications of the occurrence of this content. For items such as product variety and product region, Australian wine industry statistics were consulted. According to Wine Australia (2015), there are 39 wine varieties grown in Australia. These 39 varieties are therefore included as the custom dictionary items for product variety. Further, there are 88 wine growing regions within Australia, included as the custom dictionary for product region (Wine Australia, 2015).

Table 5.6 Informational Content Codes

Informational Content Codes		Dictionary for Text Analysis
1	Brand name	[insert brand name]
2	General Information	Newspaper and magazine press coverage, new website announcements, media mentions, hiring and job availability advertisements
3	Product image	Image contains a picture of the product: wine bottle, wine label, glass of wine
4	Vineyard image	Image contains a picture of the vineyard
5	Winery image	Image contains a picture of the winery: winery facilities, production
6	Price	[\$], [price], [dollar]
7	Website	Post contains a link or reference to the company website [http] [www] [.com]
8	Venue image	Image contains a picture of a review or award: medal, wine review screenshot or newspaper/magazine clipping, trophy
9	Product review image	Image contains a picture of a review or award: medal, wine review screenshot or newspaper/magazine clipping, trophy
10	Product award image	Image of a trophy, medal or certificate awarded to the brand.
11	Tasting and sampling	[tasting], [taste], [tried], [samples], [try], [trying]
12	Product variety	[Chardonnay], [Pinot Grigio], [Riesling], [Sauvignon Blanc], [Viogner], [Chenin Blanc], [Gewürztraminer], [Semillon], [Verdelho], [Cabernet Sauvignon], [Pinot Noir], [Tempranillo], [Carmenere], [Durif], [Grenache], [Sangiovese], [Zinfandel], [Mouvedre], [Mataro], [Syrah], [Savignin], [Traminer] [colombard] [Muscat Gordo Blanco] [Muscat a Petits Grains Blanc] [Malbec]. [Nebbiolo] [Ruby Cabernet] [Petit Verdot] [Dolcetto] [Durif] [Barbera] [Cabernet Franc] [Muscat a Petits Grains Rouge] [Merlot] [Pinot Gris] [Roussane] [Sultana] [Trebbiano] [Arneis] [Crouchen] [Marsanne] [Tarrango] [Touriga]
13	Product region/origin	[Barossa Valley], [Eden Valley], [High Eden], [Currency Creek], [Kangaroo Island], [Langhorne Creek], [McLaren Vale], [Southern Fleurieu], [Coonawarra], [Mount Benson], [Padthaway], [Wrattonbully], [Robe], [Bordertown], [Riverland], [Adelaide Hills], [Lenswood],

		[Piccadilly Valley], [Adelaide Plains], [Clare Valley], [North West], [Tamar Valley], [Pipers River], [East Coast], [Coal River], [Derwent Valley], [Southern Bendigo], [Goulburn Valley], [Nagambie Lakes], [Heathcote], [Strathbogie Ranges], [Upper Goulburn], [Gippsland], [Alpine Valleys], [Beechworth], [Glenrowan], [Rutherglen], [Murray Darling], [Swan Hill], [Geelong], [Macedon Ranges], [Mornington Peninsula], [Sunbury], [Yarra Valley], [Grampians], [Henty], [Pyrenees] [Peel], [Perth Hills], [Swan Valley], [Blackwood Valley], [Geographe], [Great Southern], [Albany], [Denmark], [Frankland River], [Mount Barker], [Porongurup], [Manjimup], [Margaret River], [Pemberton] [Murray Darling], [Perricoota], [Riverina], [Swan Hill], [Central Ranges], [Cowra], [Mudgee], [Orange], [Hunter Valley], [Broke Fordwich], [Northern Rivers], [Hastings River], [Northern Slopes], [South Coast], [Shoalhaven Coast], [Southern Highlands], [South Australia], [Victoria], [New South Wales], [Western Australia], [Tasmania], [Australian Capital Territory], [SA], [WA], [NSW], [VIC], [TAS], [ACT]
14	Product	[range] [wine] [product]
15	Product making and processing	[winemaking], [ferment], [crop], [pick], [harvest], [crush], [bottle], [bottling], [press], [rack], [barrel], [blend], [vintage], [veraison], [bud burst], [fertilise], [spray], [plant], [prune], [decant]
16	vineyard	[vineyard], [vines], [winery]
17	Opening hours	[open], [closed], [hours], [opening], [times], [shut], [am], [pm]
18	Year made	[19XX], [20XX]
19	Contact details	[phone], [email], [contact], [address], [location], [website], [get in touch], [reach], [connect]
20	Brand Fact/News	[did you know], [fact], [news], [update], [blog]
21	Service	[service], [facility], [facilities], [venue], [event], [function], [occasion], [wedding], [party], [celebration], [set up], [setting up]
22	Wine show, awards and reviews	[wine show], [win], [won], [award], [awarded], [received], [achieved], [successful], [medal], [trophy], [result], [points], [score], [review], [silver], [gold], [bronze], [presented], [presenting], [star], [judge], [named], [listed], [finalist], achievement], [success], [rating], [wine of the year],
23	Event	[event], [tickets], [festival], [fork in the road], [sea and vines]
24	Product description	[red], [white], [fruit], [tannin], [oak], [fresh], [clean], [crisp], [elegant], [soft], [smooth], [bold], [chocolate], [rich], [full bodied], [yum], [tasty], [delicious], [spice], [zest], [acid], [aroma], [dense], [palate], [flavour], [fragrance], [balanced], [caramel], [complementing], [citrus], [chalky], [characters], [notes], [raisin], [mocha], [tannic], [toffee], [tannin], [vibrant], [colour], [sweet], [sugar]

Entertaining content: Social media content can be entertaining when it includes small talk, banter, or attempts to appeal to a person's emotions. Further, entertaining content may not focus on the brand or product, but may be written in the form of a teaser, slogan or word play, which has been found to increase the number of likes, comments and shares made on Facebook posts (Cvijikj & Michahelles, 2013).

In order to capture these elements, the coding scheme displayed in Table 5.7 has been

developed. Codes of humour and slang are derived from Lee et al. (2013) and Cvijikj and Michahelles (2013). Entertaining content may include humour, images of animals and memes. The entertaining content category contains 13 codes, shown in Table 5.7.

The table shows the custom dictionary applied to generate indications of the occurrence of this content.

Table 5.7 Entertaining Content Codes

Entertaining Content Codes		Dictionary for Text Analysis
1	Food/Recipe	[recipe], [food], [cooking], [baking], [breakfast], [lunch], [dinner], [oven], [stove], [boil], [grill], [cooked], [eat], [chef], [chicken], [duck], [peach], [chocolate], [dessert], [morning tea], [porchetta], [pork belly], [chorizo], [scallops].
2	Emoticon	[☺] [;-)]
3	Weather	[weather], [forecast], [sun], [shine], [rain], [cold], [wind], [chilly], [frosty], [sunshine], [humid], [mild], [freezing], [icy], [foggy], [hot], [heat], [cloudy], [stormy], [winter], [summer], [spring], [autumn], [hail], [snow], [storm], [fire], [rainbow], [sleet], [cloudy], [thunder], [lightening], [fog], [sunrise], [sunset], [degrees], [temperature].
4	Humour	[Fun], [funny], [banter], [joke], [gag], [happy], [joking], [kidding], [April fools], [hilarious], [cool], [whimsical], [exciting], [haha], [hehe], [entertain], [laugh], [giggle], [humour], [priceless], [amusing], [laughable], [laughing]
5	Interesting/Fun fact/Historic image	Image contains an interesting artefact, relates to the history of the brand or provides a fun fact
6	Scenic Image	Image is a scenic photo of the vineyard
7	Occasion image	Image includes customers or staff at event, special occasion or party hosted by the brand
8	Food and produce image	Image includes pictures of food, produce and recipes used by the brand
9	Celebrity	Image includes a celebrity or popular figure
10	Meme Image	Image or picture, typically humorous in nature, often in cartoon or pictorial form
11	Animal Image	Image contains a picture of an animal or pet
12	Animal	[Cat], [dog], [kitten], [puppy], [pet], [animal [bird], [kitty] [budgie]
13	Slang	[Lol], [omg], [jk], [wtf], [l8r], [plz], [ttyl], [cheers], [guys], [wow], [arvo], [aussie], [gr8], [mate], [m8]

Remunerative content: Rewarding or remunerative content may include monetary incentives, special offers, giveaways, prize drawings, monetary compensations (Füller, 2006), contests and sweepstakes (Cvijikj & Michahelles, 2013).

The remunerative content overarching code contains 5 indicator codes, shown in Table

5.8. Additionally, this table shows the custom dictionary applied in order to generate indications of the occurrence of remunerative content.

Table 5.8 Remunerative Content Codes

Remunerative Content Codes		Dictionary for Text Analysis
1	Deal/Offer	[Special], [discount], [exclusive], [deal], [sale], [promotion], [clearance], [bargain], [on sale], [marked down], [low price], [free], [gift]
2	Purchase instructions	[Buy], [order], [purchase], [order form], [shop], [store]
3	Competition image	Image contains details and instructions about a competition/contest and/or prize
4	Sale/Promotion image	Image contains details about a sale, discount, promotion or special price.
5	Competition	[Win], [reward], [free], [prize],

Relational Content: According to McQuail (1983), gratifications of integration and social interaction involve members gaining insight into the circumstances of others, social empathy, identifying with others, gaining a sense of belonging, finding a basis for conversation and social interaction, helping carry out social roles, and enabling a user to connect with family, friends and society.

Relational content includes the use of emotion. In order to develop a custom dictionary of emotion, the vocabulary of emotions developed by Drummond (2004) was incorporated into the coding scheme. This dictionary is comprised of ten emotions; happy, caring, depression, inadequateness, fear, confusion, hurt, anger, loneliness and remorse. It is posited that social media content containing emotion will reflect a level of relational integration as suggested by McQuail (1983), providing an insight into circumstances of others and opportunities for community members to express their social empathy and find a basis for conversation and interaction. In addition to emotion, relational content is demonstrated when posts pose a question to the audience in order to stimulate conversation. Similarly, a quiz or game embedded within the content is

expected to stimulate interaction amongst members. Mentions of holidays and events are also relational in nature. Relational content also includes posts which ask for action by the fans. These posts use terms such as ‘comment if__’, ‘share if__’ and ‘like if__’ and are designed in order to facilitate conversation and sharing amongst fans. Images within content which include people are also coded within this category.

The relational content category contains 15 codes, shown in Table 5.9. Further, the custom dictionary applied to the social media content is provided.

Table 5.9 Relational Content Codes

Relational Content Codes		Dictionary for Text Analysis
1	Question	[?], [question] [ask you] [what do you think] [can you suggest] [suggestions] [ideas] [help]
2	Congratulations and thanking fans	[congrats], [congratulations], [well done], [thanks], [thank you].
3	Quiz/Game	[Quiz], [game], [test], [guess], [challenge]
4	Holiday/Event/Day	[Birthday, [Christmas], [Easter], [Boxing Day], [New Year], [Australia Day], [Good Friday], [Anzac Day], [Queen’s Birthday], [Labour Day], [holiday], [public holiday], [Melbourne Cup], [April fool], [Father’s Day], [Mother’s Day], [Monday], [Tuesday], [Wednesday], [Thursday], [Friday], [Saturday], [Sunday], [festive season]
5	Affection – x and o	[xo], [xx], [x]
6	Ask for action	[comment if], [like if], [share if]
7	Child/baby image	Image contains a picture of a child or baby
8	Inspirational/motivational quote	Image contains an inspirational or motivational quote, wordplay or text
9	Customer image	Image contains a single customer or group of customers
10	Employee image	Image contains a single employee or group of employees
11	Community involvement image	Image contains a reference to community involvement through local events, charities and causes
12	Friends and fans	[friends], [fans], [customers], [supporters]
13	Employee name	Post includes a name of employee, customer or pet [Tim], [Nigel], [Rebecca], [Christie], [Emily], [Tony], [Rachel], [Marc], [Pamela], [George], [Glen], [Claire], [Adam], [Travis], [Steve], [James], [Liam], [Eric], [Johann], [Charles], [Wendy], [Michael], [Jeremy],

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		[Corrina], [Brioni], [Kieran], [Don], [D'arry], [Chester], [Jack], [Jay], [Smithy], [Robert], [Dan], [Paul], [Sam], [Hayley], [Mel], [Ryan], [Andreas], [Prue], [Justine].
14	Emotion 1 - Happy	Delighted, ebullient, ecstatic, elated, energetic, enthusiastic, euphoric, excited, exhilarated, overjoyed, thrilled, tickled pink, turned on, vibrant, zippy, aglow, buoyant, cheerful, elevated, gleeful, happy, in high spirits, jovial, light-hearted, lively, merry, riding high, sparkling, up.
14	Emotion 2- Caring	Adoring, ardent, cherishing, compassionate, crazy about, devoted, doting, fervent, idolizing, infatuated, passionate, wild about, worshipful, zealous, admiring, affectionate, attached, fond, fond of, huggy, kind, kind-hearted, loving, partial, soft on, sympathetic, tender, trusting, warm-hearted, appreciative, attentive, considerate, friendly, interested in, kind, like, respectful, thoughtful, tolerant, warm toward, yielding.
14	Emotion 3- Depression	Alienated, barren, beaten, bleak, bleeding, dejected, depressed, desolate, despondent, dismal, empty, gloomy, grieved, grim, hopeless, in despair, woeful, worried, awful, blue, crestfallen, demoralized, devalued, discouraged, dispirited, distressed, downcast, downhearted, fed up, lost, melancholy, miserable, regretful, rotten, sorrowful, tearful, upset, weepy, blah, disappointed, down, funk, glum, low, moody, morose, sombre, subdued, uncomfortable, unhappy
14	Emotion 4 - Inadequateness	Blemished, blotched, broken, crippled, damaged, false, feeble, finished, flawed, helpless, impotent, inferior, invalid, powerless, useless, washed up, whipped, worthless, zero, defeated, deficient, dopey, feeble, helpless, impaired, imperfect, incapable, incompetent, incomplete, ineffective, inept, insignificant, meagre, puny, tenuous, tiny, uncertain, unconvincing, unsure, weak, wishful, lacking, lame, overwhelmed, small, substandard, unimportant
14	Emotion 5 – Fear	Alarmed, appalled, desperate, distressed, frightened, horrified, intimidated, panicky, paralysed, petrified, shocked, terrified, terror-stricken, wrecked, afraid, apprehensive, awkward, defensive, fearful, fidgety, fretful, jumpy, nervous, scared, shy, skittish, spineless, taut, threatened, troubled, wired, anxious, careful, cautious, disquieted, goose-bumpy, shy, tense, timid, uneasy, unsure, watchful, worried.
14	Emotion 6 – Confusion	Baffled, befuddled, chaotic, confounded, confused, dizzy, flustered, rattled, reeling, shocked, shook up, speechless, startled, stumped, stunned, taken-aback, thrown, thunderstruck, adrift, ambivalent, bewildered, puzzled, blurred, disconcerted, disordered, disorganised, disquieted, disturbed, foggy, frustrated, misled, mistaken, misunderstood, mixed up, perplexed, troubled, distracted, uncertain, uncomfortable, undecided, unsettled, unsure
14	Emotion 7 – Hurt	Abused, aching, anguished, crushed, degraded, destroyed, devastated, discarded, disgraced, forsaken, humiliated, mocked, punished, rejected, ridiculed, ruined, scorned, stabbed, tortured, annoyed, belittled, cheapened, criticised, damaged, depreciated, devalued, discredited, distressed, impaired, injured, maligned, marred, miffed, mistreated, resentful, troubled, used, wounded, let down, minimised, neglected, put away, put down, rueful, tender, unhappy
14	Emotion 8 – Anger	Affronted, belligerent, bitter, burned up, enraged, fuming, furious, heated, incensed, infuriated, intense, outraged, provoked, seething, storming, truculent, vengeful, vindictive, wild, aggravated, annoyed, antagonistic, crabby, cranky, exasperated, fuming, grouchy, hostile, ill-tempered, indignant, irate, irritated, offended, ratty, resentful, sore, spiteful, testy, ticked off, bugged, chagrined, dismayed, galled, grim, impatient, irked, petulant, resentful, sullen, uptight.

14	Emotion 9 – Loneliness	Abandoned, black, cut off, deserted, destroyed, empty, forsaken, isolated, marooned, neglected, ostracised, outcast, rejected, shunned, alienated, alone, apart, cheerless, companionless, dejected, despondent, estranged, excluded, left out, leftover, lonely, oppressed, uncherished, blue, detached, discouraged, distant, insulated, melancholy, remote, separate, withdrawn
14	Emotion 10 - Remorse	Abashed, debased, degraded, delinquent, depraved, disgraced, evil, exposed, humiliated, judged, mortified, shamed, sinful, wicked, wrong, ashamed, contrite, culpable, demeaned, downhearted, flustered, guilty, penitent, regretful, remorseful, repentant, shamefaced, sorrowful, sorry, blushing, chagrined, chastened, crestfallen, embarrassed, hesitant, humble, meek, regretful, reluctant, sheepish.
15	Family	[brother], [sister], [daughter], [cousin], [grandfather], [grandpa], [pop], [pa], [nan], [grandmother], [grandma], [mum], [mother], [generation], [father], [dad], [papa], [family].

Social media engagement behaviour operationalisation

The dependent variable of the study, SMEB merges both positively- and negatively-valenced expressions of engagement, in addition to considering the intensity of engagement. The review of the literature on customer engagement behaviour, internet user typologies and social media user categorisations (See Chapter 2) provides a useful foundation for organising the framework and its corresponding operationalisation of measures. The construct of SMEB consists of three positively-valenced, one neutral and two negatively-valenced behaviours as demonstrated in Table 5.10.

Table 5.10 Social Media Engagement Behaviour Operationalisation

SMEB	Valence	Definition	Dictionary / Measure
Creating	+ve	Users engage with brands and other users by creating positively-valenced content on social media platforms.	Number of comments made on the post
Contributing	+ve	Users contribute to existing content in social media platforms. Contributing users exhibit a moderate level of positively-valenced SMEB.	Number of Post ‘Likes’ Number of post ‘Shares’
Consuming	+ve	Users passively consume content without any form of active reciprocation or contribution. Consuming users demonstrate a minimum level of positive, passive SMEB.	Total number of clicks Clicks to play video Link clicks Other clicks Photo views
Dormancy	Neutral	A temporary state of inactive, passive	Dormancy = (Post Reach –

		engagement by users who may have previously interacted with the focal brand.	Engaged users) <u>Post reach</u> : Post reach is the number of people who have seen the post. The post counts as reaching someone when it's shown in News Feed. Figures are for the first 28 days after a post was created and include people viewing the post on desktop and mobile. <u>Engaged users</u> : total number of customers who commented, liked, shared, clicked, detached (hide post, hide all post, unlike page) and destructed (report as spam).
Detaching	-ve	Users take action to remove content of the brand appearing in their news-feed or equivalent home page. Detaching users exhibit a moderate level of negatively-valenced SMEB.	Negative Feedback: Actions users can take to tell Facebook that they do not want to see certain content. Measures: Hide post, hide all posts, unlike page
Destructing	-ve	Negative, active contributions to existing content on social media platforms are created by destructive users. Destructive users represent a highest level of negatively-active SMEB.	<u>Negative Feedback</u> : Actions users can take to tell Facebook that they do not want to see certain content (report as spam).

Media richness operationalisation

Within social media content, specifically delivered by brands on Facebook, media richness is categorised into three levels as shown in Table 5.11. This operationalisation is derived from De Vries et al. (2012) and Cvijikj and Michahelles (2013): 1) Low media richness for status updates as they are in the form of written text; 2) medium richness for photos and images as they include pictorial content; 3) high vividness for videos as they offer sound and pictorial content.

Table 5.11 Media Richness Operationalisation

Media Richness Level	Operationalisation
Low	Status updates (text only)
Medium	Photos and images (imagery, no audio)
High	Videos (text, imagery and audio)

Congruity operationalisation

Social media content varies in its degree of congruity with the focal brand (Shamdasani, Stanaland, & Tan, 2001). Three levels of congruity are used in this study to determine the relevancy of the content, referring to the degree to which a piece of information contributed to the identification of the primary message communicated by the brand. The levels used in this study are presented in Table 5.12.

Table 5.12 Congruity Operationalisation

Congruity	Operationalisation
Low	Post is not related to the category, the brand or a product.
Medium	Post relates in a general sense to the category (wine)
High	Post relates to the specific brand or product of the brand

Community size operationalisation

Community size was categorised as small (less than 1,500 fans), medium (1500-10,000 fans) and large (over 10,000 fans). The categorisation of community size was derived from the Mastermind (2015) report containing average community size statistics of Australian and New Zealand brand Facebook pages.

Table 5.13 Community Size Operationalisation

Congruity	Operationalisation
Small	Less than 1,500 fans
Medium	1,500 to 10,000 fans
Large	Over 10,000 fans

Step 4a. Human Coding Schemes

Human coding was required in the study in order to code non-textual data in which the custom dictionaries could not be applied. This non-textual content includes photos and videos relevant to social media content. NVivo 10 was used to complete coding of content according to the codes in Table 5.14.

Table 5.14 Image Coding Scheme

Image Codes	Image content present
Informational Content	
Product	Image contains a picture of the product: wine bottle, wine label, glass of wine
Vineyard	Image contains a picture of the vineyard
Winery	Image contains a picture of the winery: winery facilities, production
Venue	Image contains a picture regarding the venue and facilities available
Review/Award	Image contains a picture of a review or award: medal, wine review screenshot or newspaper/magazine clipping, trophy
Entertaining Content	
Interesting/fun fact/historic image	Image contains an interesting artefact, relates to the history of the brand or provides a fun fact
Scenic	Image is a scenic photo
Occasion image	Image includes customers or staff at an event, special occasion or party hosted by the brand
Food and produce image	Image includes pictures of food, produce and recipes used by the brand
Meme	Image or picture, typically humorous in nature, often in cartoon or pictorial form
Animal	Image contains a picture of an animal or pet
Remunerative Content	
Competition image	Image contains details and instructions about a competition/contest and/or prize
Sale/Promotion image	Image contains details about a sale, discount, promotion or special price.
Relational Content	
Child/baby image	Image contains a picture of a child or baby
Inspirational/motivational quote	Image contains an inspirational or motivational quote, wordplay or text
Customer image	Image contains a single customer or group of customers
Employee image	Image contains a single employee or group of employees
Community involvement image	Image contains a reference to community involvement through local events, charities and causes

Step 4b. Computer Coding Schemes

In recent years, the advance in computer technology has allowed developments in quantitative content analysis techniques, eliminating coding errors and enabling the analysis of large volumes of written communication. Through the creation of computer content coding schemes, coding rules may be formalised, permitting perfect coding reliability to be obtained (Weber, 1990).

Computer software assisted in the QCA process of this research in two ways. Firstly, it assisted in the sorting, analysing and reporting of research data including the coding and notations made by the researchers and the construction of tables, charts and graphs.

Secondly, computer software was used for the automatic scanning of texts and identification of words and phrases. Notwithstanding the thematic analysis of community member comments and images embedded within the social media content, automation of the entire process of coding and analysis was achieved.

In consideration of the nature of the sample, the research questions of the study and the conditions as described by Holsti (1969), a predominantly computerised approach to content analysis was required for this study. The electronic archive of the data necessary for this study provides advanced searching capabilities, minimising the time required for routine counting, increasing levels of reliability and creating greater degrees of reproducibility which should result in a reduction of researcher bias (Neuendorf, 2002).

The custom dictionaries developed for computer coding have been presented in the preceding sections. The process of computer coding post content can be conducted using the SEARCH IF function in Microsoft Excel. This allows each row of text (social media content) to be analysed for key words or phrases as specified within the custom dictionary. The output then gives results on the occurrence (1) or non-occurrence (0) of that term within the row (post), resulting in binary coding of all independent variable codes. For example, the Excel formula was developed using the custom dictionary developed for the code 'product variety' within informational posts:

```
=IF(ISNUMBER(SEARCH("Chardonnay",$D4)),1,IF(ISNUMBER(SEARCH("PinotGrigio",$D4)),1,IF(ISNUMBER(SEARCH("Riesling",$D4)),1,IF(ISNUMBER(SEARCH("SauvignonBlanc",$D4)),1,IF(ISNUMBER(SEARCH("Viogner",$D4)),1,IF(ISNUMBER(SEARCH("CheninBlanc",$D4)),1,IF(ISNUMBER(SEARCH("Gewurtztraminer",$D4)),1,IF(ISNUMBER(SEARCH("Semillon",$D4)),1,IF(ISNUMBER(SEARCH("Verdehlo",$D4)),1,IF(ISNUMBER(SEARCH("CabernetSauvignon",$D4)),1,0)))))
```

```
"1",IF(ISNUMBER(SEARCH("PinotNoir",$D4)),"1",IF(ISNUMBER(SEARCH("Tempranillo",$D4)),"1",IF(ISNUMBER(SEARCH("Carmanere",$D4)),"1",IF(ISNUMBER(SEARCH("Durif",$D4)),"1",IF(ISNUMBER(SEARCH("Grenache",$D4)),"1",IF(ISNUMBER(SEARCH("Shiraz",$D4)),"1",IF(ISNUMBER(SEARCH("Sangiovese",$D4)),"1",IF(ISNUMBER(SEARCH("Zinfandel",$D4)),"1",IF(ISNUMBER(SEARCH("Mouvedre",$D4)),"1","0")))))))))))))).
```

To illustrate further, the following formula was developed using the custom dictionary developed for the code 'holiday/event' within relational posts:

```
=IF(ISNUMBER(SEARCH("birthday",$D4)),"1",IF(ISNUMBER(SEARCH("christmas",$D4)),"1",IF(ISNUMBER(SEARCH("easter",$D4)),"1",IF(ISNUMBER(SEARCH("boxingday",$D4)),"1",IF(ISNUMBER(SEARCH("newyear",$D4)),"1",IF(ISNUMBER(SEARCH("australiaday",$D4)),"1",IF(ISNUMBER(SEARCH("goodfriday",$D4)),"1",IF(ISNUMBER(SEARCH("anzacday",$D4)),"1",IF(ISNUMBER(SEARCH("queen'sbirthday",$D4)),"1",IF(ISNUMBER(SEARCH("labourday",$D4)),"1",IF(ISNUMBER(SEARCH("holiday",$D4)),"1",IF(ISNUMBER(SEARCH("publicholiday",$D4)),"1",IF(ISNUMBER(SEARCH("melbournecup",$D4)),"1",IF(ISNUMBER(SEARCH("aprilfool",$D4)),"1",IF(ISNUMBER(SEARCH("father'sday",$D4)),"1",IF(ISNUMBER(SEARCH("mother'sday",$D4)),"1",IF(ISNUMBER(SEARCH("monday",$D4)),"1",IF(ISNUMBER(SEARCH("tuesday",$D4)),"1",IF(ISNUMBER(SEARCH("wednesday",$D4)),"1",IF(ISNUMBER(SEARCH("thursday",$D4)),"1",IF(ISNUMBER(SEARCH("friday",$D4)),"1",IF(ISNUMBER(SEARCH("saturday",$D4)),"1",IF(ISNUMBER(SEARCH("sunday",$D4)),"1","0")))))))))))))))))))))).
```

In total, 55 formulas were written in order to apply the custom dictionaries to each variable. The formulas are available in Appendix C.

Step 5. Sampling

Step five of the content analysis process involves determining the selection of content to analyse. For this analysis, social media content and corresponding SMEB data was extracted from 12 Australian wine brands. A total of 2,236 Facebook posts were analysed. Convenience sampling was used in this study as a result of the unavoidable difficulty in obtaining social media message content and SMEB from a random sample of sources. The convenience sample was limited to social media and SMEB data from wine brands which the researcher was granted access to. In order to collect the data, the researcher sent a preliminary email to Australian wine brands with active Facebook accounts. Twelve brands responded and confirmed their participation in the study. Though there are limits to the reliability of convenience sampling (Fricker & Schonlau, 2002), a long term goal of this research is to build a framework and method within

which additional social media content and behavioural data can be continually added. The large size of the data set obtained from the convenience sample, in addition to the cross-section of brands including large corporations, family-owned, regional, and boutique brands was expected to dissipate such limitations.

To limit the scope of the project, only Australian wine brands were chosen for analysis. However, there are numerous wine brands located internationally with a heavy social media presence. This study was limited to Australian wine brands with social media pages registered within Australia. The social media content selected for the sample (number of posts=2,236) was created after January 1st, 2013 and prior to December 31st, 2013. This 12 month window of social media content allowed for further narrowing of the project scope, whilst maintaining the ability to observe and account for possible seasonal effects across a one year time frame.

Step 6. Training and Initial Reliability

Training and initial reliability is required for human coding of social media content. A rigorous, scientific approach to media content analysis in order to gain maximum reliability requires the use of two or more coders. Two or more coders can be used to analyse the entire content, or a sample of the content, termed the 'sub-sample' in order to ensure that obtained ratings and scores are not the idiosyncratic results of one coder's subjective judgement (Tinsley & Weiss, 1975).

A training session was held in which the two coders, the researcher and a research assistant worked together on a sub-set of the data. This allowed for discussion regarding agreement and disagreement on the coding of variables. Following this, the two coders conducted an independent coding test on a sample of 100 posts. A number of statistical

formulas have been developed in recent literature for measuring inter-coder reliability. Cohen's Kappa coefficient (κ) is a statistical measure of the inter-rater (coder) reliability which many researchers regard as more useful than percentage agreement reliability tests (Neuendorf, 2002). NVivo10 calculates the Kappa coefficient individually for each combination of node and source.

In NVivo, The Kappa coefficient is calculated as follows (Carletta, 1996; QSR International, 2015):

Calculate the expected frequency by which the agreement between users could have occurred by chance (ΣEF), by summing:

1. The number of units of the source's content coded at the node by user A, multiplied by the number of units coded at the node by user B, divided by the total number of units in the source (EF1)
2. The number of units of the source's content not coded at the node by user A, multiplied by the number of units not coded at the node by user B, divided by the total number of units in the source (EF2)
3. Expected frequency (EF) of the agreement occurring by chance = EF1 + EF2

Calculate the Kappa coefficient (K) as equal to:

1. Total units of agreement between the two users (TA) minus the expected frequency (ΣEF) of the agreement occurring by chance, divided by the total units (TU) within the source minus the expected frequency (ΣEF) of the agreement occurring by chance: $K = (TA - \Sigma EF) \div (TU - \Sigma EF)$

In the case where both users are in complete agreement as to how the source's content should be coded at the node, then the value of Kappa will equal 1.

Kappa statistics range in value from -1.0 to 1.0 with results closer to 1.0 suggesting agreement beyond chance, whereas results close to zero suggest that agreement occurred due to chance. Landis and Koch (1977) provide a more detailed analysis of strength of agreement defined by kappa statistics, as per Table 5.15, which continues to be used as a means of analysing strength of agreement (McGinn, Guyatt, Cook, Korenstein, & Meade, 2008; Viera & Garrett, 2005) and thus is utilised in this study.

Table 5.15 Kappa Value Interpretation

Kappa value	Interpretation
< 0	Less than chance agreement
0.20	Slight agreement
0.21 – 0.40	Fair agreement
0.41 – 0.60	Moderate agreement
0.61 – 0.80	Substantial agreement
0.81 – 0.99	Almost perfect agreement

The median kappa value for inter-coder reliability regarding coding of images was 0.77, indicating substantial agreement among the two independent coders (results shown in Appendix D).

Step 7. Coding

The custom dictionaries are applied to the entire content to generate per-unit frequencies and observations for each dictionary item.

Step 8. Tabulation and reporting

The final stage of the content analysis process is tabulation, reporting and analysis of the results identified through the content analysis. For the purpose of this study,

relationships between content analysis results and other measures within the theoretical model such as SMEB (H1-H7) will be explored through binary logistic regression and process modelling (Hayes, 2013) in IBM SPSS Statistics 22. The following section, descriptive analysis, provides a detailed description of the key results identified within the content analysis process.

5.6 Descriptive Results

5.6.1 Social Media Content

Social media content was coded with informational, entertaining, remunerative and relational custom dictionaries. Descriptive results were generated using the analyse, descriptive statistics function of SPSS Statistics v22.

The total number of posts coded as containing any form of informational content was 1847, 82.6% of total posts (n=2236). The total number of posts that contained a form of entertaining content was 1135, 50.7% of total posts. The total number of posts coded as containing remunerative content was 313, 13.9% of total posts. The total number of posts coded as containing relational content was 1545, 69% of total posts. These results are presented in Table 5.16. The table further explicates the results of the specific types of informational, entertaining, remunerative and relational content coded within each content category.

Table 5.16 Post Content Categories

Informational Content	No. of Observations	No. Observation as % of total posts (n=2236)
Brand name	281	12.6
General information	61	2.7
Product image	397	17.7
Commercial partner image	2	0.1
Vineyard image	230	10.3
Winery image	282	12.6

Website	423	18.9
Price	81	3.6
Venue image	72	3.2
Review/Award image	94	4.2
Tasting and sampling	124	5.5
Product variety	276	12.3
Product details	369	16.5
Region	323	14.4
Winemaking/processing details	190	8.5
Vineyard/location	167	7.5
Opening hours	106	4.7
Year made	361	16.1
Contact details	64	2.9
Brand Fact/News	49	2.2
Service	108	4.8
Wine show, awards and reviews	160	7.2
Event	164	7.3
Product description	188	8.4
Entertaining Content	No. of Observations	No. Observation as % of total posts (n=2236)
Food/recipe	276	12.3
Emoticon	1	.0
Weather	213	9.5
Humour	213	9.5
Interesting fact image	19	0.8
Scenic image	122	5.4
Event image	388	17.3
Food image	226	10.1
Celebrity image	21	.9
Meme image	67	3.0
Animal image	101	4.5
Animal	27	1.2
Slang	63	2.8
Remunerative	No. of Observations	No. Observation as % of total posts (n=2236)
Deal/special offer	132	5.9
Purchase instructions	83	3.7
Competition image	53	2.4
Sale image	63	2.8
Competition details	56	2.8
Relational	No. of Observations	No. Observation as % of total posts (n=2236)
Ask question	360	16.1
Congrats/thanks	101	4.5
Quiz/game	24	1.1
Holiday, event, special day	324	14.5
Affection	9	0.4

Ask for action	1	0.0
Child/baby image	15	0.7
Inspirational/motivational quote	5	0.2
Customer image	1	0.0
Employee image	7	0.3
Community involvement image	54	2.4
Friends and fans	55	2.5
Human name	236	10.6
Emotion	480	24.3
Family	634	23.9

5.6.2 Social Media Engagement Behaviour

Table 5.17 provides descriptive statistics for SMEBs: creating, contributing, consuming, dormancy, detaching and destructing. It can be observed that the average number of comments made on a post is 2.22 comments. The table also shows that the average number of likes received on a post is 21.68. The average number of times a post is shares is 1.58 times. The table also shows the four types of consuming behaviour exhibited by users. The mean for consuming behaviour in the form of ‘other clicks’ is highest, with an average of 26.76 ‘other clicks’ made on posts. The average dormancy rate is high, at 90%. The mean scores for detaching behaviour are quite low, indicating that this behaviour occurs less frequently compared to the positively-valenced SMEBs. Similarly, the number of cases in which destructing behaviour occurred was very low at just 8 cases within the total of 2,236 posts. For this reason, the destructing behaviour component of SMEB did not meet the requirements for the dependent variable case size required within binary logistic regression (Harrell, 2013). Consequently, the binary logistic regression results presented in Chapter 6 do not include testing of the effect social media content on destructing SMEB.

Table 5.17 Descriptive Statistics for Social Media Engagement Behaviour

SMEB:	Creating	Contributing		Consuming				Dormancy	Detachment				Destru cting
MEASURES:	Number of Comments	Likes	Total shares	Clicks to Play	Link Click	Other Click	Photo View	Dormancy (%)	Hide all posts	Hide 1 post	Unlike page	X Button	Report as spam
Mean	2.22	21.68	1.58	0.13	1.68	26.76	17.03	0.90	0.16	0.04	0.05	0.24	0.01
Std. Error of Mean	0.13	0.86	0.12	0.03	0.12	0.88	0.65	0.00	0.01	0.00	0.01	0.01	0.00
Median	0.00	10.00	0.00	0.00	0.00	13.00	7.00	0.91	0.00	0.00	0.00	0.00	0.00
Mode	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.92	0.00	0.00	0.00	0.00	0.00
Std. Deviation	6.05	40.60	5.61	1.48	5.63	41.40	30.92	0.08	0.55	0.20	0.24	0.66	0.09
Variance	36.63	1648.53	31.47	2.19	31.70	1713.63	956.08	0.01	0.30	0.04	0.06	0.43	0.01
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00
Maximum	121.00	629.00	105.00	36.00	76.00	491.00	473.00	1.00	6.00	2.00	3.00	8.00	2.00
Sum	4960.00	48467.00	3532.00	294.00	3759.00	59831.00	38074.00	2010.53	362.00	81.00	109.00	531.00	8.00

5.6.3 Moderating Variables

Richness

Social media content was categorised according to post type in order to create the media richness construct. The post types were (1) status, link, (2) photo, (3) video. Distribution of each of these types over the dataset of 2,236 social media posts is presented in Table 5.18.

Table 5.18 Media Richness

Richness level	Post type	Frequency	Percent
Low	Status/link	687	30.7
Medium	Photo	1500	67.1
High	Video	49	2.2
Total		2236	100.0

It can be seen that 67.1% of the posts (1,500 posts) include a photo, followed by the status and link media type (30.7%, 687). A total of 49 videos were included in the posts (2.2%).

Congruity

Social media content with low congruity is categorised as content which is not specifically related to the category (wine), brand or product. Content with medium congruity is relevant to the product category but does not focus on a specific brand or product. Social media content with high congruity includes details of the brand and a specific product/s. This content is highly contextually relevant to the social media brand page. The congruity variable therefore has three categories; low, medium and high. Distribution of each category of congruity is presented in Table 5.19.

Table 5.19 Congruity

Congruity Level	Frequency	Percent
Low	960	43
Medium	433	19.4

High	843	37.7
Total	2236	100.0

Community Size

This study included community size as a moderating variable, measured by the number of fans on the brand page. Community size was categorised as small (less than 1,500 fans), medium (1500-10,000 fans), and large (over 10,000 fans). A total of 525 (23.5%) of posts were made within small community sizes. The majority of posts (1306 posts, 58.4%) were made in medium community sizes. 405 (18.1%) posts were made in large community sizes.

Table 5.20 Community Size

Community Size	No. Fans	No. Posts	Percent
Small	< 1,500	525	23.5
Medium	1501 – 10,000	1306	58.4
Large	>10,000	405	18.1
Total		2236	100

5.6.4 Control Variables

The testing of the relationship between social media content and SMEB controls for the effect of three variables related to social media content scheduling. These variables are: the day of the week in which the post is made, the month of the year in which the post is made, and finally, the hour of the day in which the post is made, as discussed in the following sections.

Day of Post

Previous studies of temporal interaction patterns have shown that most of the user activities on Facebook are undertaken during workdays (Golder et al., 2007). Further, studies have shown that click through rates of online advertisements decrease significantly on weekend days, and people perform less internet searching during weekends than on weekdays (Rutz & Bucklin, 2011). Within Facebook, brand fans may

visit brand fan pages more during the weekends than on weekdays, or vice versa.

Hence, this study takes into account the day of the week in which the brand post is delivered to the fans.

It can be seen that the lowest level (4.8%) of activity in terms of number of shared posts over a seven day period occurred on Saturdays with 107 occurrences, while the highest number of posts were shared on Thursdays with 476 occurrences (21.2%). Table 5.21 contains the distribution of posts by day of the week.

Table 5.21 Post Distribution by Week

Post Day	No. Posts	Percent of posts
Monday	408	18.2
Tuesday	357	16.0
Wednesday	341	15.2
Thursday	472	21.1
Friday	162	7.2
Saturday	107	4.8
Sunday	389	17.4
Total	2236	100

The distribution of posts by month is presented in Table 5.22. The number of posts per month remains consistent throughout the calendar year with a slight decrease in January (6.7%) and an increase in March (9.9%) and April (9.8%).

Table 5.22 Post Distribution by 12 Months

Month	Frequency	Percent
January	150	6.7
February	172	7.7
March	221	9.9
April	219	9.8
May	194	8.7
June	201	9.0
July	196	8.8
August	167	7.5
September	203	9.1
October	156	7.0
November	194	8.7
December	163	7.3
Total	2236	100

The distribution of posts by time is also included as a control variable in the study.

Social media users have been found to engage least during the morning and early afternoon, with increased interaction toward the evening, reaching a steady, high level during the night (Golder et al., 2007). Hence, if a post is created in the period when Facebook fans are more active, there is a greater possibility for the brand post to be seen on the wall, resulting in greater potential engagement. Based on this reasoning, this study also controls for the effect of posting time.

Table 5.23 shows that the lowest level of activity in terms of the number of posts shared across the day occurs at 10am (.0%, 1 occurrence). The highest number of posts were shared between 7pm and 8pm.

Table 5.23 Post Distribution by Hour

Hour (o'clock)	Frequency	Percent
12 am	118	5.3
1 am	74	3.3
2 am	74	3.3
3 am	40	1.8
4 am	24	1.1
5 am	19	.8
6 am	6	.3
7 am	4	.2
9 am	2	.1
10 am	1	.0
11 am	3	.1
12 pm	17	.8
1 pm	16	.7
2 pm	61	2.7
3 pm	108	4.8
4 pm	154	6.9
5 pm	251	11.2
6 pm	228	10.2
7 pm	257	11.5
8 pm	189	8.4
9 pm	218	9.7
10 pm	202	9.0
11 pm	170	7.6
Total	2236	100.0

5.7 Hypothesis Testing

Completion of the quantitative content analysis and resultant descriptive analysis as outlined in this chapter allowed the data to be prepared for hypothesis testing.

5.7.1 Binary Logistic Regression

Hypotheses 1 to 5 were analysed using binary logistic regression using IBM SPSS Statistics (Version 20).

Logistic regression is an appropriate statistical technique when the dependent variable is a categorical (nominal or nonmetric) variable, and the independent variables are metric or nonmetric variables (Hair, Black, Babin, Anderson, & Tatham, 2006). Logistic regression is a preferred statistical technique in this study as assumptions such as multivariate normality and equal variance-covariance matrices across groups were not met. Logistic regression does not face these strict assumptions and is more robust when these assumptions are not met (Hair et al., 2006).

Assumptions of logistic regression

Logistic regression does not assume a linear relationship between the dependent and independent variables. The dependent variable must be a dichotomy (2 categories). The independent variables are not required to be interval, normally distributed, linearly related, or of equal variance within each group. The categories must be mutually exclusive and exhaustive; for example a case can only be in one group and every case must be a member of one of the groups. Finally, larger samples are needed than for linear regression because maximum likelihood coefficients are large sample estimates. A minimum of 50 cases per predictor is recommended (Hosmer Jr & Lemeshow, 2004)

Variable coding for logistic regression

The measurement of social media content presence for H1 to H4 was a dichotomy (1=content present within post, 0 = content not present within post). The level of social media content used for H1a to H4a was a categorical independent variable. The dependent variables of the study (SMEB) were coded as a dichotomy in order to predict the likelihood of the behaviour occurring (1 = behaviour occurred e.g. ‘comment made’, 0 = behaviour did not occur). A summary of the coding of the independent variables can be found in Table 5.24.

Table 5.24 Independent Variable Coding

Predictor	Coded as
Informational content	1 for content present, 0 for content absent
Entertaining content	1 for content present, 0 for content absent
Remunerative content	1 for content present, 0 for content absent
Relational content	1 for content present, 0 for content absent
Informational content level	A number between 1 and 24
Entertaining content level	A number between 1 and 13
Remunerative content level	A number between 1 and 5
Relational content level	A number between 1 and 15

A summary of the coding for the dependent variables can be found in Table 5.25.

Table 5.25 Dependent Variable Coding

SMEB Variable	Coded as
Creating	1 for comment occurred, 0 for no comment
Contributing (shares)	1 for share occurred, 0 for no share
Contributing (likes)	1 for like occurred, 0 for no like
Consuming	1 for consuming behaviour, 0 for no consuming
Dormancy	1 for high dormancy (>90%) 0 for low dormancy (<90%)
Detaching	1 for detaching occurred, 0 for no detaching
Destruction	1 for destruction occurred, 0 for no destruction

A summary of the coding for the control variables can be found in Table 5.26.

Table 5.26 Control Variable Coding

Variable	Coded as
Time of Day	1 for AM, 0 for PM

Post Month	1 for January, 2 for February, 3 for March, 4 for April, 5 for May, 6 for June, 6 for July, 8 for August, 9 for September, 10 for October, 11 for November, 12 for December
Post Day	1 for Monday, 2 for Tuesday, 3 for Wednesday, 4 for Thursday, 5 for Friday, 6 for Saturday, 7 for Sunday

5.7.2 Process Analysis

To test H6, H7 and H8 concerning moderation effects, Process Model 2 was applied. Hayes (2013) mediation, moderation and conditional process analysis is a regression based approach to statistical testing. This was conducted through ‘PROCESS’, a computational tool for path analysis-based moderation and mediation analysis, in addition to their integration in the form of a conditional process model (Hayes, 2013). Hayes ‘PROCESS’ tool allows for estimation of unstandardised model coefficients, standard errors, *t* and *p*-values and confidence intervals using OLS regression and/or maximum likelihood logistic regression.

The hypotheses developed in Chapter 4 demonstrate a conceptual model in which three variables (richness, congruity and community size) are estimated as moderating a single focal predictor’s (social media content) effect. PROCESS (Hayes, 2013) has the ability to estimate outcomes in this type of model, implementing the necessary computations for probing the interaction and visualising more complex models (Hayes, 2013).

Statistical analysis was carried out using IBM SPSS Statistics 20 using the PROCESS macro (Hayes, 2013, Model 2). The program was written by Andrew Hayes (2013). A variety of models were examined separately, with social media content as predictors, measures of congruity, richness and community size as moderators, and SMEB as the outcome variable.

The statistical model used is presented in Figure 5.2 and Figure 5.3. The independent

variables are informational content, entertaining content, remunerative content and relational content, the moderator variables are media richness, congruity, and community size, and the dependent variables are SMEB typologies of creating, contributing, consuming, dormancy and detaching.

Figure 5.2 PROCESS Model 2 Conceptual Diagram

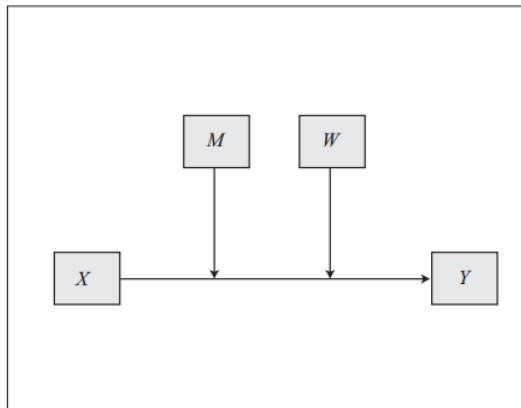
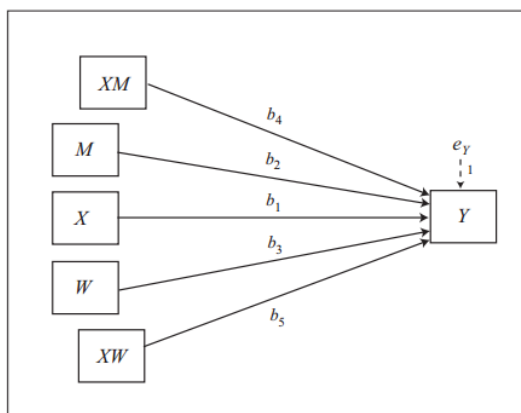


Figure 5.3 PROCESS Model 2 Statistical Diagram



Conditional effect of X on $Y = b_1 + b_4M + b_5W$

PROCESS moderation model with a three category moderator

In Figure 5.2, ‘X’ refers to the social media content as an *independent variable*. This content can be informational, entertaining, remunerative or relational. ‘Y’ is the *outcome variable* which is represents one of the six SMEBs; creating, contributing, consuming, dormancy and detaching. ‘M’ and ‘W’ are the *moderator variables*. This

model shows 'M' and 'W' as two distinct moderating variables. However, by adopting Hayes (2015) approach to adjusting this model, it was possible to convert M and W to represent two categories of a single moderator, e.g. 'low' and 'high'.

In order to construct this model, indicator coding of the moderator variables was required. When $k = 3$ (three categories of the moderating variable), D_1 is coded as 1 for all cases in group 1, and 0 for all other cases. Similarly, D_2 is coded as 1 for cases in group 2, and 0 in all cases. The third group is identified when both D_1 and D_2 are coded as 0. When M is a multi-categorical variable, in order to assess its role as a moderator of the effect of X on Y , M is subsequently converted into two dichotomous variables (M and W). To illustrate, in the case of media richness as the moderating variable, D_1 refers to low media richness D_2 refers to high media richness. In the case that D_1 and D_2 were both coded as '0', the media richness would be medium. The full guidelines for conducting a moderation analysis with PROCESS Model 2 and three category moderator variables are outlined in Hayes (2015).

The results of the conditional process analysis and consequent hypothesis testing are presented in Chapter 6.

5.8 Chapter Summary

Taking on a positivist perspective, a quantitative research design was adopted, comprised of two phases deemed appropriate in order to test the model and hypotheses developed in chapter three. The design and implementation of the quantitative content analysis was described, including key considerations of the theory and rationale for the study, conceptualisation decisions, operationalisation of measures, development of coding schemes, sampling, training and initial reliability testing, coding, tabulation and

reporting. The descriptive characteristics and results of the quantitative content analysis were presented prior to hypothesis testing. In order to test the hypotheses set out in the previous chapter, binary logistic regression and Hayes (2013) process modelling was applied. Chapter Six will outline the results of the study.

CHAPTER 6. Results

6.1 Introduction

The chapter begins with an examination of the effect of social media content presence on SMEB through the application of binary logistic regression. It then reports on the effect of social media content levels on SMEB, again using binary logistic regression procedures. The interaction effects between informational, entertaining, relational and remunerative social media content types on SMEB are also tested. A series of adapted PROCESS Model 2 analyses were conducted to examine the moderating effects of media richness, congruity and community size. These effects are subsequently discussed. The chapter concludes with an overview of the hypotheses and summary of results.

6.2 Social Media Content

Binary logistic regression is an appropriate statistical technique for examining the impact of the presence of each type (informational, entertaining, remunerative and relational) of social media content on specific SMEB's (creating, contributing, consuming, dormancy, detaching and destructing) independently.

Each model controls for the effect of post time (AM or PM), post day of the week, and post month of the year. When conducting binary logistic regression with categorical independent variables such as social media content, day of the week, month of the year and time of the day, it is necessary to specify which predictor variables are categorical within SPSS (Field, 2013).

The control variables, day of the week, month of the year and time of the day are categorical variables. These variables were transformed into dummy variables in order

to represent groups using only zeros and ones. When creating dummy variables, the number of variables required is one less than the number available. One variable is selected as the baseline against which all other groups will be compared. For post day of the week, Wednesday was selected as the baseline against which all other groups are compared. Field (2013) suggests that when no obvious baseline group is identifiable, researchers can select the most interesting baseline group. Consequently, the effects of the day of the week were tested multiple times, each time selecting a different day as the baseline. The results for Wednesday as the baseline category provided the most interesting insight and are hence reported within this thesis. The same method was adopted for the selection of the month 'June' as the baseline category for the month of the year dummy variables. Post time of the day was also dummy coded into a dichotomous (AM/PM) variable. 'PM' was selected as the baseline category, and hence all posts made in the morning were coded 1, and posts made in the afternoon were coded 0. The results for AM are therefore comparative to the baseline category 0, which represents PM, and are presented in each table of results.

The results for Hypotheses 1 to 4 are presented in the following sections, with statistically significant predictors presented in bold.

6.2.1 Informational Content Presence

Informational content may contain details on price, availability, location and product names (Lee et al., 2013). Further, informational content may contain explanatory images referring to the brand's location, facilities and products. Information may also relate to the brand's contact details such as the provision of contact phone numbers, email addresses, links to a website, and opening hours. A full description of the informational content operationalisation is provided in Chapter 5, Section 5.5.3.

Drawing from empirical studies exploring the link between informational content and consumer response, it was hypothesised that informational social media content will facilitate positively-valenced SMEB (H1) as discussed in Chapter 4. Customers who seek informational value from social media content are more likely to consume content rather than interact through comments and discussion (Ko et al., 2005). As such, informational content is further surmised to have a significant relationship with consuming, passive SMEB;

***H1.** The presence of informational content facilitates passive, positively-valenced social media engagement behaviour.*

In order to test this hypothesis, binary logistic regression was conducted, demonstrating the effect of the presence of informational content on the likelihood that each of the six SMEBs would occur. Tables 6.1 through to 6.7 in the following sections show the results for informational content and creating, contributing, consuming, dormant and detaching behaviour respectively.

Each table includes the results regarding the effect control variables post day of the week, post month of the year, and post time of the day (AM or PM). Statistically significant results are presented in bold.

Informational content and SMEB - creating

Creating behaviour occurs when users engage with brands and other users by creating positively-valenced content on social media platforms in the form of making a comment. Creating epitomises a highly active level of SMEB. Table 6.1 shows that the presence of informational content is a statistically significant predictor of the occurrence of the SMEB type: creating. The odds ratio of 1.41 for creating behaviour shows that

those posts which had informational content included were 1.4 times more likely to receive a comment, than posts which did not have informational content.

The day of the week, month of the year and time of the post were added as control variables in the logistic regression. For post day of the week, posts made on a Thursday or Sunday decreased the odds of SMEB in the form of creating occurring, compared to the baseline category of Wednesday. Thursday posts were 26% ($\text{Exp}(B)=0.74$) less likely to result in creating behaviour compared to Wednesday posts, and Sunday posts were 37% ($\text{Exp}(B)=0.63$) less likely to result in creating behaviour compared to a Wednesday post. Compared to the baseline category of June, posts made in July, August, September and October reduced the likelihood of SMEB in the form of creating occurring.

Table 6.1 Logistic Regression Showing Effect of Informational Content Presence on Creating Behaviour

SMEB	IV	B	Sig	Exp(B)
Creating Behaviour	Informational	.34	.00	1.41
	Monday	-.21	.15	.81
	Tuesday	-.18	.23	.83
	Thursday	-.30	.04	.74
	Friday	.02	.92	1.02
	Saturday	-.01	.96	.99
	Sunday	-.46	.00	.63
	January	-.33	.14	.72
	February	-.19	.38	.83
	March	-.49	.01	.61
	April	-.34	.09	.72
	May	-.17	.40	.84
	July	-.50	.01	.60
	August	-.44	.04	.65
	September	-.52	.01	.59
	October	-.51	.02	.60
	November	-.27	.19	.76
	December	-.24	.26	.79
	AM	-.06	.64	.95

Informational content and contributing behaviour (shares)

Contributing behaviour occurs when users contribute to existing content in social media platforms by disseminating further pre-existing content through likes and shares.

Contributing users exhibit a moderate level of positively-valenced SMEB by ‘liking’ and ‘sharing’ brand related content. The binary logistic regression predicting the occurrence of contributing behaviour was conducted separately for liking and sharing contributing behaviours

Table 6.2 presents the results of the logistic regression examining the presence of informational content and the SMEB: contributing, in the form of sharing. The presence of informational content is a statistically significant predictor of sharing behaviour, with an Exp(B) of 1.91 indicating that when posts have informational content, they are 1.9 times more likely to be shared.

The control variables; day of the week, time of the day and month of the year in which the post were made are also presented in Table 6.2. Posts made on Mondays (30% less likely), Thursdays (32% less likely) and Sundays (35% less likely) reduced the likelihood of contributing behaviour in the form of shares occurring, compared to the baseline category of Wednesday. The results also indicate that posts made in the morning are 36% less likely to be shared, indicating that in order to facilitate this behaviour, posts made after midday are preferable. The month of the year in which the post was made did not have a statistically significant effect on contributing behaviour in the form of shares.

Table 6.2 Logistic Regression Showing Effect of Informational Content Presence on Contributing Behaviour (Shares)

SMEB	IV	B	Sig	Exp(B)
Contributing Behaviour (Shares)	Informational	.65	.00	1.91
	Monday	-.35	.02	.70
	Tuesday	-.11	.48	.90
	Thursday	-.38	.01	.68
	Friday	-.21	.28	.81
	Saturday	-.29	.21	.75
	Sunday	-.43	.00	.65
	January	.09	.70	1.09
	February	-.11	.61	.90
	March	-.18	.37	.84
	April	-.11	.58	.90
	May	-.15	.48	.86
	July	-.14	.49	.87
	August	-.24	.26	.79
	September	-.28	.17	.76
	October	-.18	.42	.84
	November	.05	.82	1.05
	December	-.18	.40	.83
	AM	-.45	.00	.64

Informational content and contributing behaviour (likes)

Table 6.3 shows that the presence of informational content is a statistically significant predictor of the occurrence of contributing SMEB in the form of likes. The odds ratio of 2.46 for contributing behaviour (likes) indicates that posts which have informational content are almost 2.5 times more likely to receive a 'like', compared to posts with no informational content. This appears relatively higher than the odds ratio of 1.41 for creating behaviour as shown in Table 6.1. Additionally, this odds ratio is higher than the odds ratio for shares of 1.91 provided in Table 6.2. The control variables also had a statistically significant effect on the likelihood of contributing behaviour in the form of liking. Posts made on a Tuesday are 52% *less likely* to be liked, and posts made on a Sunday are 60% *less likely* to be liked, compared to posts on Wednesdays. Posts made in the morning (AM) significantly and negatively predicted the occurrence of liking.

This finding indicates that in order to facilitate contributing behaviour in the form of

likes, afternoon posts are preferable.

Table 6.3 Logistic Regression Showing Effect of Informational Content Presence on Contributing Behaviour (Likes)

SMEB	IV	B	Sig	Exp(B)
Contributing Behaviour (Likes)	Informational	.90	.00	2.46
	Monday	-.48	.11	.62
	Tuesday	-.73	.01	.48
	Thursday	-.41	.16	.66
	Friday	.25	.58	1.28
	Saturday	-.06	.90	.95
	Sunday	-.91	.00	.40
	January	-.70	.11	.50
	February	-.73	.08	.48
	March	-1.07	.01	.34
	April	-.42	.31	.66
	May	.01	.98	1.01
	July	-.42	.32	.66
	August	-.59	.17	.56
	September	.25	.61	1.28
	October	-.40	.38	.67
	November	-1.16	.00	.31
	December	-.27	.55	.76
	AM	-.41	.05	.66

Informational content and consuming behaviour

Consuming behaviour is defined as the passive consumption of brand related content through reading reviews, discussion and comments, viewing photos, watching videos and clicking on content and links. Consuming reflects the minimum level of positively-valenced SMEB. The behaviour is passive, denoting a level of participation without active contribution to or creation of content. Table 6.4 shows the effect of informational content presence on consuming SMEB. Informational content is a statistically significant predictor of consuming behaviour ($\text{Exp(B)} = 2.27$). Posts which contain informational content are 2.27 times more likely to result in consuming behaviour, compared to posts with no informational content. The control variables had no significant effect on the occurrence of consuming SMEB.

Table 6.4 Logistic Regression Showing Effect of Informational Content Presence on Consuming Behaviour

SMEB	IV	B	Sig	Exp(B)
Consuming Behaviour	Informational	.82	.03	2.27
	Monday	-1.42	.07	.24
	Tuesday	-.73	.39	.48
	Thursday	-1.04	.19	.35
	Friday	-.64	.53	.53
	Saturday	16.25	1.00	11405526.56
	Sunday	-.95	.25	.39
	January	.50	.69	1.65
	February	.00	1.00	1.00
	March	.92	.46	2.50
	April	.21	.84	1.23
	May	.77	.53	2.17
	July	.13	.90	1.14
	August	-.45	.63	.64
	September	-.33	.72	.72
	October	-.81	.36	.44
	November	-1.20	.14	.30
	December	-1.02	.23	.36
AM		-.01	.99	.99

Informational content and dormant behaviour

A dormant user is one who has made zero active or passive contributions to the community in relation to the post. Users do not engage with the brand through consuming, contributing to or creating content. Dormancy is measured in this study as the post reach, minus the number of engaged users. Post reach is the number of people who have seen the post, while engaged users refers to the total number of customers who commented, liked, shared, clicked, detached (hide post, hide all post, unlike page) and destructed (report as spam).

Table 6.5 indicates that informational content presence is not a statistically significant predictor of dormant behaviour. The control variable day of the week provided some interesting results regarding the prediction of dormant behaviour. The positively weighted beta for Thursdays (1.41) and Sundays (1.47) indicates that dormant behaviour is 1.41 and 1.47 times more likely to occur on these two days, compared to

the baseline category Wednesday. Posts made on a Saturday are 35% less likely to result in dormant behaviour, indicating that social media users may be more active on Saturdays, compared to Wednesdays. The likelihood of dormant behaviour occurring increased in April (1.56 times more likely) and July (1.90 times more likely) compared to the baseline month of June.

Table 6.5 Logistic Regression Showing Effect of Informational Content Presence on Dormant Behaviour

SMEB	IV	B	Sig	Exp(B)
Dormant Behaviour	Informational	-.07	.54	.93
	Monday	.25	.10	1.28
	Tuesday	.21	.19	1.23
	Thursday	.34	.02	1.41
	Friday	.02	.91	1.02
	Saturday	-.43	.06	.65
	Sunday	.38	.01	1.47
	January	-.80	.00	.45
	February	-.11	.60	.89
	March	.36	.08	1.43
	April	.44	.03	1.56
	May	.12	.56	1.13
	July	.64	.00	1.90
	August	.07	.76	1.07
	September	.05	.82	1.05
	October	-.07	.74	.93
	November	.05	.80	1.06
	December	-.19	.39	.83
	AM	-.06	.61	.94

Informational content and detaching behaviour

Detaching behaviour reflects users who privately remove themselves from the social media page. This is measured by the level of ‘negative feedback’ on a post, reflective of the actions users can take to tell Facebook that they do not want to see certain content. The measures are captured from Facebook insights data and include hide post, hide all posts and unlike the page.

Table 6.6 shows the results of the binary logistic regression predicting the occurrence of detaching behaviour. Informational content presence is not a significant predictor of

detaching behaviour. Detaching behaviour is less likely to occur in the later months of the year, specifically September (55% less likely), October (60% less likely), November (68% less likely) and December (74% less likely) compared to the baseline month, June. The post time of day did not have a statistically significant impact on the likelihood of SMEB in the form of detaching occurring.

Table 6.6 Logistic Regression Showing Effect of Informational Content Presence on Detaching Behaviour.

SMEB	IV	B	Sig	Exp(B)
Detaching Behaviour	Informational	.29	.06	1.33
	Monday	.06	.77	1.06
	Tuesday	.31	.11	1.37
	Thursday	.19	.31	1.21
	Friday	.13	.61	1.14
	Saturday	.20	.48	1.22
	Sunday	.13	.50	1.14
	January	.18	.47	1.20
	February	-.31	.24	.74
	March	.20	.38	1.22
	April	.12	.60	1.13
	May	.04	.87	1.04
	July	-.09	.71	.91
	August	-.03	.91	.97
	September	-.80	.00	.45
	October	-.91	.00	.40
	November	-1.15	.00	.32
	December	-1.36	.00	.26
	AM	-.14	.36	.87

Informational content and social media engagement behaviour comparison

Table 6.7 shows the summarised results for the main effects between informational content presence and SMEB. Informational content presence significantly and positively predicted the occurrence of creating, contributing (likes and shares) and consuming behaviour. There were no significant relationships between informational content and dormant and detaching behaviour.

Therefore, H1: *The presence of informational content facilitates passive, positively-valenced social media engagement behaviour* is supported.

The results show a significant relationship between the presence of informational content, creating, contributing, and consuming behaviour. Contributing behaviour in the form of likes is most likely to occur ($\text{Exp}(B)=2.46$) when informational content is present.

Table 6.7 Summarised Logistic Regression Results for H1

Content	SMEB	b	Sig	Exp(B)
Information	Creating	.34	.00	1.41
	Contributing (shares)	.65	.00	1.91
	Contributing (likes)	.90	.00	2.46
	Consuming	.82	.03	2.27
	Dormancy	-.07	.54	.93
	Detaching	.29	.06	1.33

6.2.2 Informational Content Level

The summarised results in Table 6.7 show that informational content presence is a significant predictor of creating, contributing (likes), contributing (shares) and consuming SMEB. In this section, this effect is explored in greater detail by investigating the level of informational content within a post, and how this may alter the effect on occurrence of each of the behaviours.

The informational content category contains 24 items, shown in Table 5.6 (Chapter 5). In order to test the effect of the amount of informational content, binary independent variables were created for each content level, with 1 used to indicate content level presence and 0 for absence. Binary logistic regression is used to assess how the amount of information present within a post predicts the occurrence of positively-valenced SMEB as per H1a. Each model controlled for the effects of post day, month and time of the day, with the results mirroring those presented in the binary logistic regressions previously conducted. The control variable effects are therefore omitted in the following tables for ease of interpretation

Hypothesis 1a suggested that *high levels of informational content weaken the relationship with positively-valenced social media engagement behaviours*. As receivers of content have a limited cognitive processing capacity, when information overload occurs it is likely that a reduction in decision quality and attention will occur (Speier et al., 1999).

Binary logistic regression was conducted with informational content as a categorical independent variable. The informational content level has values ranging from 1 to 11, with 11 being the highest number of informational elements included in any post in this study. In the following section, the results regarding informational content level and its effect on the occurrence of creating, contributing and consuming SMEB are presented.

Table 6.8 Logistic Regression Showing Effect of Informational Content Level on SMEB

SMEB	Content Level	b	Sig	Exp(B)
Creating behaviour	Information(1)	0.23	.09	1.25
	Information(2)	0.30	.03	1.35
	Information(3)	0.32	.04	1.37
	Information(4)	0.43	.01	1.53
	Information(5)	0.65	.00	1.91
	Information(6)	0.81	.01	2.25
	Information(7)	1.11	.00	3.04
	Information(8)	0.66	.34	1.93
	Information(9)	0.64	.50	1.89
	Information(10)	-0.33	.79	.72
	Information(11)	-20.82	1.00	.00
Contributing behaviour (shares)	Information(1)	0.41	0.00	1.51
	Information(2)	0.45	0.00	1.57
	Information(3)	0.73	0.00	2.08
	Information(4)	1.18	0.00	3.25
	Information(5)	1.11	0.00	3.03
	Information(6)	0.92	0.00	2.51
	Information(7)	1.54	0.00	4.69
	Information(8)	1.08	0.12	2.94
	Information(9)	0.28	0.76	1.33
	Information(10)	21.92	1.00	3314822935.28
	Information(11)	-20.41	1.00	0.00

Contributing behaviour (likes)	Information(1)	0.53	0.01	1.70
	Information(2)	0.58	0.01	1.79
	Information(3)	1.27	0.00	3.55
	Information(4)	2.01	0.00	7.43
	Information(5)	3.13	0.00	22.90
	Information(6)	19.36	1.00	255281052.68
	Information(7)	19.48	1.00	287964457.35
	Information(8)	19.66	1.00	343750485.70
	Information(9)	-0.77	0.51	0.46
	Information(10)	19.43	1.00	275572346.08
	Information(11)	19.25	1.00	229651909.46
Consuming behaviour	Information(1)	0.51	0.26	1.66
	Information(2)	0.45	0.35	1.57
	Information(3)	1.06	0.11	2.90
	Information(4)	1.84	0.08	6.30
	Information(5)	17.54	1.00	41314885.39
	Information(6)	17.35	1.00	34252930.95
	Information(7)	17.58	1.00	43154110.52
	Information(8)	17.78	1.00	52473614.36
	Information(9)	16.68	1.00	17606880.70
	Information(10)	17.48	1.00	39180206.73
	Information(11)	17.34	1.00	33952131.85

Hypothesis 1a suggested that high levels of informational content weaken the relationship with positively-valenced social media engagement behaviours. Positive and significant relationships were found between increasing levels of informational content and positively-valenced SMEB in the form of creating and contributing. As the level of informational content within a post increased from 2 to 7, the likelihood of creating behaviour occurring also increased. No statistical significance was found to suggest that posts with 8 or greater elements of information can facilitate the occurrence of creating behaviour, supporting the notion of information overload. Similarly, when predicting contributing behaviour in the form of shares, the odds of sharing behaviour increased in line with an increase in the level of informational content, to a maximum level of 7 elements of information. As the level of informational content within a post increased from 1 to 5, the odds of contributing behaviour in the form of likes dramatically

increased. For informational content levels of 6 or greater, there was no significant effect on contributing behaviour in the form of likes.

H1a is therefore partially supported. The results in Table 6.8 show that a maximum level of informational content is reached when predicting the occurrence of active, positively-valenced SMEBs of creating and contributing in the form of likes.

6.2.3 Entertaining Content Presence

Entertaining content was hypothesised to facilitate positively-valenced SMEB. If a brand post is entertaining, user motivations to engage with the content are met. Hence, users may exhibit a more positive response toward entertaining brand posts compared to non-entertaining brand posts. Based on this foundation, it can be hypothesised that entertaining brand posts will facilitate active, positive SMEB;

***H2.** The presence of entertaining content facilitates active, positively-valenced engagement behaviour.*

The results of the binary logistic regression, predicting likelihood of SMEB based on entertaining content, are presented in Table 6.9 through to Table 6.15. Each table includes the results regarding the effect of control variables post day of the week, post month of the year, and post time of the day (AM or PM). Statistically significant results are presented in bold.

Entertaining content and creating behaviour

The results of the logistic regression in Table 6.9 indicate that the presence of entertaining content increases the odds of creating behaviour occurring by 1.41 times, compared to a post with no entertaining content. The control variables for post day of the week did have an influence on whether or not creating behaviour occurred. It can be

seen in Table 6.9 that posts made on Thursdays and Sundays are 26% and 37% respectively less likely to result in the occurrence of creating behaviour. This result is consistent with the findings regarding control variables in Table 6.1, which indicated that informational content is also less likely to facilitate creating behaviour on Thursdays and Sundays. It can therefore be suggested that when posting informational or entertaining content, Thursday and Sunday are not preferable days if the goal is to facilitate creating behaviour in the form of comments by users.

Post months of March, April, July, August, September and October significantly reduced the likelihood of creating behaviour occurring relative to June. This effect was greatest for the post month October, in which the likelihood of creating behaviour occurring was reduced by 43%. The post time of the day did not have a statistically significant impact on the likelihood of creating behaviour occurring.

Table 6.9 Logistic Regression Showing Effect of Entertaining Content Presence on Creating Behaviour

SMEB	IV	B	Sig	Exp(B)
Creating Behaviour	Entertaining	.34	.00	1.41
	Monday	-.21	.15	.81
	Tuesday	-.18	.23	.83
	Thursday	-.30	.04	.74
	Friday	-.03	.89	.97
	Saturday	-.07	.75	.93
	Sunday	-.47	.00	.63
	January	-.35	.11	.71
	February	-.19	.36	.82
	March	-.49	.01	.61
	April	-.39	.05	.68
	May	-.21	.30	.81
	July	-.53	.01	.59
	August	-.52	.02	.60
	September	-.55	.01	.58
	October	-.56	.01	.57
	November	-.33	.11	.72
	December	-.28	.20	.76
	AM	-.05	.65	.95

Entertaining content and contributing behaviour (likes)

Table 6.10 shows the results of the logistic regression predicting the odds of contributing behaviour in the form of likes occurring. The results show that when entertaining content is present, the odds of contributing behaviour (likes) occurring increase by 1.24 times.

The day of the week did not have a statistically significant impact on the occurrence of SMEB in the form of contributing (likes). Compared to the baseline category of June, posts made in the months of October, November and December reduced the likelihood of contributing behaviour in the form of likes occurring for posts with entertaining content. Posts made in September are more likely to facilitate the occurrence of contributing behaviour in the form of likes occurring (Exp(B)=.44). The time of the post (AM) did not have a significant effect on the odds of contributing behaviour in the form of likes occurring.

Table 6.10 Logistic Regression Showing Effect of Entertaining Content Presence on Contributing (Likes) Behaviour

SMEB	IV	B	Sig	Exp(B)
Contributing Behaviour (Likes)	Entertaining	.54	.05	1.24
	Monday	-.49	.75	1.06
	Tuesday	-.74	.10	1.37
	Thursday	-.39	.29	1.22
	Friday	.19	.67	1.12
	Saturday	-.18	.57	1.18
	Sunday	-.92	.49	1.15
	January	-.74	.51	1.18
	February	-.78	.23	.73
	March	-1.07	.38	1.22
	April	-.54	.71	1.09
	May	-.06	.96	1.01
	July	-.49	.67	.90
	august	-.77	.74	.92
	September	.19	.00	.44
	October	-.56	.00	.39
	November	-1.32	.00	.30
	December	-.33	.00	.25
	AM	-.45	.36	.87

Entertaining content and contributing behaviour (shares)

Table 6.11 presents the results of the logistic regression concerning entertaining content presence and contributing behaviour in the form of sharing. Entertaining content presence is a statistically significant predictor of sharing behaviour, with an Exp(B) of 1.41 indicating that when posts have entertaining content, they are 1.41 times more likely to be shared.

The control variables Monday, Thursday and Sunday had a statistically significant and negative effect on the likelihood of contributing behaviour in the form of shares occurring, compared to the baseline category of Wednesday. Posts made on Mondays, Thursdays and Sundays are 30%, 31% and 35% respectively, less likely to be shared. There is no indication that post on other days had statistical significance. Posts made in the morning (AM) decrease the odds of contributing behaviour in the form of shares occurring by 37%, compared to posts made in the afternoon.

Table 6.11 Logistic Regression Showing Effect of Entertaining Content Presence on Contributing (Shares) Behaviour

SMEB	IV	B	Sig	Exp(B)
Contributing Behaviour (Shares)	Entertaining	.34	.00	1.41
	Monday	-.35	.02	.70
	Tuesday	-.11	.47	.89
	Thursday	-.37	.01	.69
	Friday	-.25	.21	.78
	Saturday	-.37	.11	.69
	Sunday	-.44	.00	.65
	January	.06	.80	1.06
	February	-.14	.52	.87
	March	-.19	.34	.83
	April	-.18	.36	.83
	May	-.19	.34	.82
	July	-.18	.39	.84
	August	-.35	.10	.70
	September	-.31	.13	.73
	October	-.26	.24	.77
	November	-.05	.81	.95
	December	-.22	.30	.80
	AM	-.46	.00	.63

Entertaining content and consuming behaviour

Table 6.12 shows that the presence of entertaining content was not found to be a statistically significant predictor of consuming behaviour. Consuming behaviour is defined as a passive positively-valenced SMEB, in which users read posts, click on posts, view photos and view videos. Table 6.12 shows that the presence of entertaining content does not significantly predict the occurrence of consuming behaviour. This finding suggests that users are more likely to consume content through clicking links, reading posts, clicking on posts, viewing photos and viewing videos when the content is informational. Comparatively, when the content is entertaining, there is no evidence to suggest that users are any more or less likely to consume the content.

The control variables day of the week, month of the year and time of the day in which the post was made did not significantly affect whether or not the post resulted in the occurrence of consuming behaviour.

Table 6.12 Logistic Regression Showing Effect of Entertaining Content Presence on Consuming Behaviour

SMEB	IV	B	Sig	Exp(B)
Consuming Behaviour	Entertaining	-.01	.97	.99
	Monday	-1.46	.06	.23
	Tuesday	-.82	.33	.44
	Thursday	-1.03	.19	.36
	Friday	-.60	.56	.55
	Saturday	16.17	1.00	10568580.81
	Sunday	-1.03	.21	.36
	January	.46	.71	1.58
	February	-.07	.95	.93
	March	.85	.49	2.33
	April	.14	.89	1.15
	May	.74	.55	2.10
	July	.06	.95	1.06
	August	-.57	.54	.56
	September	-.36	.69	.70
	October	-.93	.29	.39
	November	-1.35	.10	.26
	December	-1.05	.22	.35
	AM	-.06	.91	.94

Entertaining content and dormant behaviour

Table 6.13 shows the results of the logistic regression predicting the occurrence of dormant SMEB. As the Exp(B) is statistically significant, the presence of entertaining content reduces the odds of dormant behaviour occurring by 35%. This finding reflects the results for active SMEBs of creating and contributing in the forms of likes and comments, which were increased as a result of entertaining content presence. It is therefore expected that the likelihood of dormancy occurring should be decreased.

The control variables for day of the week provide some interesting results regarding the prediction of dormant behaviour. It can be seen that posts made on Thursdays and Sundays are 1.43 and 1.47 times more likely to result in dormant behaviour occurring, compared to the baseline category Wednesday.

Table 6.13 Logistic Regression Showing Effect of Entertaining Content Presence on Dormant Behaviour

SMEB	IV	B	Sig	Exp(B)
Dormant Behaviour	Entertaining	-.43	.00	.65
	Monday	.25	.11	1.28
	Tuesday	.20	.20	1.22
	Thursday	.35	.02	1.43
	Friday	.09	.66	1.09
	Saturday	-.39	.09	.68
	Sunday	.38	.01	1.47
	January	-.79	.00	.45
	February	-.13	.53	.87
	March	.33	.11	1.40
	April	.49	.02	1.62
	May	.16	.44	1.18
	July	.65	.00	1.91
	August	.12	.57	1.13
	September	.07	.72	1.08
	October	-.05	.83	.95
	November	.08	.70	1.08
	December	-.15	.48	.86
	AM	-.08	.54	.93

Entertaining content and detaching behaviour

Table 6.14 shows the results of the logistic regression predicting the occurrence of detaching behaviour as a consequence of the presence of entertaining content. The presence of entertaining content increases the odds of detaching behaviour occurring by 1.24 times. The inclusion of the control variables for post month of the year show negatively weighted and statistically significant beta scores for September, October and November and December, compared to the baseline category of June. This finding indicates that for posts made later in the year, the likelihood of detaching behaviour is reduced. Posts with entertaining content present are less likely to result in detaching behaviour occurring when they are made in September (56% less likely), October (61% less likely), November (70% less likely), and December (75% less likely), compared to June. The day of the post and the time of the day in which the post is made do not significantly increase or decrease the likelihood of negatively-valenced SMEB in the form of detaching, occurring.

Table 6.14 Logistic Regression Showing Effect of Entertaining Content Presence on Detaching Behaviour

SMEB	IV	B	Sig	Exp(B)
Detaching Behaviour	Entertaining	.216	.05	1.24
	Monday	.061	.75	1.06
	Tuesday	.318	.10	1.37
	Thursday	.196	.29	1.22
	Friday	.110	.67	1.12
	Saturday	.164	.57	1.18
	Sunday	.136	.49	1.15
	January	.165	.51	1.18
	February	-.314	.23	.73
	March	.201	.38	1.22
	April	.085	.71	1.09
	May	.012	.96	1.01
	July	-.104	.67	.90
	August	-.083	.74	.92
	September	-.817	.00	.44
	October	-.950	.00	.39
	November	-1.193	.00	.30
	December	-1.385	.00	.25
	AM	-.144	.36	.87

Entertaining content and social media engagement behaviour comparison

The summarised binary logistic regression results for each SMEB are displayed in Table 6.15. Entertaining content presence is a statistically significant predictor of the occurrence of active, positively-valenced SMEBs, creating and contributing. The statistically significant Exp(B) of .65 indicates that presence of entertaining content within a post reduces the likelihood that dormant behaviour will occur by 35%.

Interestingly, the results also support a relationship between the presence of entertaining content and detaching SMEB. The presence of entertaining content increases the likelihood of users detaching from the content by 1.24 times, compared to when there was no entertaining content in the post.

Therefore, H2 *The presence of entertaining content facilitates active, positively-valenced social media engagement behaviour* is supported.

Table 6.15 Summarised Logistic Regression Results for H2

Content	SMEB	b	Sig	Exp(B)
Entertaining	Creating	.34	.00	1.41
	Contributing (shares)	.34	.00	1.41
	Contributing (likes)	.54	.05	1.24
	Consuming	-.01	.97	.99
	Dormancy	-.43	.00	.65
	Detaching	.216	.05	1.24

6.2.4 Entertaining Content Level

The entertaining content level variable had values ranging from 1 to 5, with 5 being the highest number of entertaining elements included in a post in this study. Therefore, five dichotomous categorical dummy variables were created, with 1 indicating the presence of the level of content and 0 indicating the absence.

Hypothesis 2a suggested that *high levels of entertaining content weaken the relationship*

with positively-valenced social media engagement behaviours. An optimal level of entertaining context was expected to exist, beyond which information overload would occur and the user is presented with too many cues to successfully process (Hiltz & Turoff, 1985)

Binary logistic regression was conducted with entertaining content levels as categorical independent variables. The entertaining content level has values ranging from 1 to 5, with 5 being the highest number of entertaining elements in a post identified in this study. In the following section, results regarding entertaining content level and its effect on the occurrence of SMEB are discussed.

Table 6.16 Logistic Regression Showing Effect of Entertaining Content Level on SMEB

SMEB	Content Level	b	Sig	Exp(B)
Creating behaviour	Entertaining(1)	0.23	0.02	1.25
	Entertaining(2)	0.52	0.00	1.68
	Entertaining(3)	0.68	0.01	1.98
	Entertaining(4)	1.11	0.04	3.02
	Entertaining(5)	21.46	1.00	2081088462.23
Contributing behaviour (shares)	Entertaining(1)	0.23	0.02	1.26
	Entertaining(2)	0.45	0.00	1.57
	Entertaining(3)	1.06	0.00	2.88
	Entertaining(4)	0.52	0.29	1.68
	Entertaining(5)	21.51	1.00	2205451191.74
Contributing behaviour (likes)	Entertaining(1)	0.33	0.06	1.39
	Entertaining(2)	1.31	0.00	3.70
	Entertaining(3)	0.52	0.33	1.69
	Entertaining(4)	0.51	0.63	1.66
	Entertaining(5)	19.60	1.00	326477632.82
Consuming behaviour	Entertaining(1)	0.04	0.91	1.04
	Entertaining(2)	-0.20	0.70	0.82
	Entertaining(3)	-0.15	0.89	0.86
	Entertaining(4)	17.08	1.00	26105017.90
	Entertaining(5)	16.98	1.00	23774943.61

Hypothesis 2a suggested that *high levels of entertaining content weaken the relationship with positively-valenced engagement behaviour*. Positive and significant relationships were found between increasing levels of informational content and active, positively-valenced SMEB in the form of creating and contributing (shares). For creating behaviour, the level of 4 for entertaining content had the greatest impact on the likelihood of creating behaviour occurring. For entertaining content levels of 5 or greater, there was no significant relationship with creating behaviour. Similarly, when predicting the occurrence of contributing behaviour in the form of shares, the maximum number of entertaining content elements within a post was 3, increasing the odds ratio of 2.88. For posts with greater than 3 elements of entertaining content, there was no statistical significance to suggest a prediction of contributing behaviour in the form of shares occurring. This suggests that there is a maximum level of entertaining content within a post, beyond which the occurrence of active, positively-valenced engagement behaviours cannot be predicted. Two entertaining content elements within a post were found to predict the occurrence of contributing behaviour in the form of likes. H2a, *high levels of entertaining content weaken the relationship with positively-valenced engagement behaviour* is therefore partially supported.

6.2.5 Remunerative Content Presence

The level of remuneration offered to consumers has been studied as a driver of consumer decisions to contribute to online communities (Muntinga et al., 2011). Remunerative content has been previously found to have no effect on post shares (Cvijikj & Michahelles, 2013). It is expected that a low level of engagement would occur as a result of a post containing a reward or offer, for example ‘consuming’ rather than contributing or co-creating (Muntinga et al., 2011). Hence it may be argued that

content which provides remunerative or economic benefit to the user leads to less active expressions of SMEB,

H3. The presence of remunerative content facilitates passive, positively-valenced social media engagement behaviour.

Tables 6.17 through 6.22 show the results for entertaining content and creating, contributing, consuming, dormant and detaching behaviour. Additionally, each table includes the results regarding the effect of the control variables post day of the week, post month of the year, and post time of the day (AM or PM). Statistically significant results are presented in bold.

Remunerative content and creating behaviour

Table 6.17 shows that remunerative content presence is a statistically significant predictor of the occurrence of creating SMEB. The odds ratio of 1.29 for creating behaviour shows that those posts which had remunerative content included were 1.29 times more likely to receive a comment than posts which did not have remunerative content.

The occurrence of creating behaviour was influenced by the control variable, day of the week. Posts made on Thursdays and Sundays were 25% and 37% respectively less likely to facilitate the occurrence of creating behaviour, compared to the baseline day of Wednesday.

The results also identify an effect of the control variable, post month of the year. The statistically significant Exp(B) values for the months of March, July, August, September and October indicate that for posts made in these months, the odds of creating behaviour occurring are reduced compared to posts made in June. These results indicate that June

is a preferable month for posts to be made, compared to March, July, August, September and October, in order to facilitate active, positively-valenced SMEB in the form of creating.

Table 6.17 Logistic Regression Showing Effect of Remunerative Content Presence on Creating Behaviour

SMEB	IV	B	Sig	Exp(B)
Creating Behaviour	Remunerative	0.25	0.04	1.29
	Monday	-0.22	0.14	0.80
	Tuesday	-0.19	0.21	0.83
	Thursday	-0.29	0.04	0.75
	Friday	0.03	0.86	1.04
	Saturday	-0.03	0.89	0.97
	Sunday	-0.47	0.00	0.63
	January	-0.33	0.14	0.72
	February	-0.21	0.32	0.81
	March	-0.49	0.01	0.61
	April	-0.35	0.07	0.70
	May	-0.17	0.41	0.85
	July	-0.51	0.01	0.60
	August	-0.47	0.03	0.62
	September	-0.52	0.01	0.59
	October	-0.55	0.01	0.58
	November	-0.31	0.13	0.73
	December	-0.25	0.23	0.77
AM	-0.05	0.68	0.95	

Remunerative content and contributing behaviour (shares)

Table 6.18 presents the results of the logistic regression concerning remunerative content presence and contributing behaviour in the form of sharing. Informational content presence is a statistically significant predictor of sharing behaviour, with an Exp(B) of 1.77 indicating that when posts have remunerative content, they are 1.77 times more likely to be shared.

Remunerative posts were less likely to facilitate the occurrence of contributing behaviour in the form of shares on Mondays (30% less likely), Thursdays (31% less likely) and Sundays (36% less likely), compared to the baseline post day of Wednesday. This finding suggests that in order to facilitate active SMEB, specifically contributing

through post shares, posting remunerative content on a Wednesday is preferable compared to Mondays, Thursdays and Sundays. The results indicate that the likelihood of sharing behaviour is decreased by 35% for posts made in the morning, compared to remunerative posts made in the afternoon ($\text{Exp}(B)=0.65$). Remunerative social media content is therefore more likely to be ‘shared’ in the afternoon.

Table 6.18 Logistic Regression Showing Effect of Remunerative Content Presence on Contributing Behaviour (Shares)

SMEB	IV	B	Sig	Exp(B)
Contributing Behaviour (shares)	Remunerative	0.57	0.00	1.77
	Monday	-0.36	0.02	0.70
	Tuesday	-0.12	0.42	0.88
	Thursday	-0.37	0.01	0.69
	Friday	-0.18	0.36	0.83
	Saturday	-0.32	0.16	0.73
	Sunday	-0.44	0.00	0.64
	January	0.08	0.71	1.09
	February	-0.15	0.49	0.86
	March	-0.16	0.43	0.85
	April	-0.14	0.49	0.87
	May	-0.13	0.53	0.88
	July	-0.16	0.45	0.86
	August	-0.31	0.14	0.73
	September	-0.28	0.17	0.76
	October	-0.26	0.23	0.77
	November	-0.02	0.92	0.98
	December	-0.21	0.33	0.81
	AM	-0.43	0.00	0.65

Remunerative content and contributing behaviour (likes)

Table 6.19 shows that remunerative content presence is a statistically significant predictor of the occurrence of contributing SMEB in the form of likes. The odds ratio of 1.96 for contributing behaviour (likes) indicates that posts which have remunerative content are almost 2 times more likely to receive a ‘like’, compared to posts with no remunerative content.

The variable for post day of the week influenced the likelihood of active, positively-valenced SMEB occurring in the form of contributing (likes). Remunerative posts were

less likely to facilitate the occurrence of contributing behaviour in the form of likes on Tuesdays (53% less likely) and Sundays (61% less likely). The variable for post month of the year also influenced the likelihood of contributing behaviour in the form of likes occurring. Posts made in February, March and November were less likely to be ‘liked’ compared to the baseline month June. Posts made in the morning (AM) significantly and negatively predicted the occurrence of liking. This finding indicates that in order to facilitate contributing behaviour in the form of likes, the time of the day is a significant consideration, and afternoon posts are preferable.

Table 6.19 Logistic Regression Showing Effect of Remunerative Content Presence on Contributing Behaviour (Likes)

SMEB	IV	B	Sig	Exp(B)
Contributing Behaviour (likes)	Remunerative	0.67	0.02	1.96
	Monday	-0.50	0.09	0.61
	Tuesday	-0.76	0.01	0.47
	Thursday	-0.38	0.20	0.68
	Friday	0.30	0.49	1.35
	Saturday	-0.10	0.83	0.90
	Sunday	-0.93	0.00	0.39
	January	-0.72	0.10	0.49
	February	-0.82	0.05	0.44
	March	-1.07	0.01	0.34
	April	-0.49	0.23	0.61
	May	0.01	0.98	1.01
	July	-0.46	0.27	0.63
	August	-0.72	0.09	0.49
	September	0.24	0.63	1.27
	October	-0.58	0.20	0.56
	November	-1.30	0.00	0.27
	December	-0.31	0.49	0.73
	AM	-0.44	0.03	0.65

Remunerative content and consuming behaviour

Table 6.20 presents the results of the binary logistic regression predicting consuming SMEB when remunerative content is present.

Table 6.20 indicates that there is no statistical support for a relationship between the presence of remunerative content and consuming behaviour. These results indicate that

this form of content is not a significant predictor of SMEB in the form of consuming behaviour, including reading posts, viewing photos, watching videos, clicking on the post and viewing photos. The control variables post day of the week, month of the year and time of the day also had no statistically significant effect on the likelihood of consuming SMEB occurring.

Table 6.20 Logistic Regression Showing Effect of Remunerative Content Presence on Consuming Behaviour

SMEB	IV	B	Sig	Exp(B)
Consuming Behaviour	Remunerative	0.66	0.28	1.94
	Monday	-1.47	0.06	0.23
	Tuesday	-0.83	0.32	0.44
	Thursday	-1.06	0.19	0.35
	Friday	-0.60	0.55	0.55
	Saturday	16.17	1.00	10493884.30
	Sunday	-1.04	0.21	0.35
	January	0.48	0.70	1.61
	February	-0.05	0.96	0.95
	March	0.90	0.47	2.46
	April	0.16	0.87	1.18
	May	0.77	0.53	2.15
	July	0.08	0.93	1.09
	August	-0.57	0.54	0.56
	September	-0.34	0.71	0.71
	October	-0.95	0.28	0.39
	November	-1.34	0.10	0.26
	December	-1.07	0.21	0.34
	AM	-0.01	0.98	0.99

Remunerative content and dormant behaviour

Table 6.21 presents the results of the logistic regression, testing the effect of remunerative content on the occurrence of dormant behaviour.

The results show that the presence of remunerative content significantly and negatively predicts the occurrence of dormant behaviour. The Exp(B) of 0.75 indicates that dormant behaviour is 25% less likely to occur when a post contains remunerative content, compared to when a post does not contain any remunerative content. These findings suggest that the presence of remunerative content in a post can *decrease* the

odds of users remaining dormant in their behaviour.

The odds of dormant SMEB occurring increase when posts are made on Thursdays (1.42 times more likely), and Sundays (1.47 times more likely), compared to posts made Wednesdays. This finding suggest that users are less active in their SMEB on Thursdays and Sundays, regardless of the presence of informational, entertaining or remunerative content.

Significant effects were observed regarding the effect of month of the year on the likelihood of dormant behaviour occurring. Dormant behaviour was less likely to occur when the post was made in January (55% less likely). However it was more likely to occur when the post was in April (1.55 times more likely) and July (1.89 times more likely), compared to the June. This finding suggests that users are more active in their engagement behaviour in January, as the odds of dormant behaviour occurring are decreased, when compared to the middle of the year (June). Comparatively, users are less active (more dormant) in the months of April and July, as the odds of dormant behaviour occurring are increased, compared to June.

The variable for post time of the day did not have a significant effect on the prediction of dormant behaviour.

Table 6.21 Logistic Regression Showing Effect of Remunerative Content on Dormant Behaviour

SMEB	IV	B	Sig	Exp(B)
Dormant Behaviour	Remunerative	-0.29	0.02	0.75
	Monday	0.25	0.10	1.29
	Tuesday	0.21	0.18	1.24
	Thursday	0.35	0.02	1.42
	Friday	0.01	0.95	1.01
	Saturday	-0.43	0.06	0.65
	Sunday	0.39	0.01	1.47
	January	-0.81	0.00	0.45
	February	-0.11	0.60	0.89
	March	0.33	0.10	1.40
	April	0.44	0.03	1.55
	May	0.11	0.61	1.11
	July	0.64	0.00	1.89
	August	0.07	0.74	1.08
	September	0.04	0.84	1.04
	October	-0.05	0.80	0.95
	November	0.06	0.79	1.06
	December	-0.18	0.41	0.84
	AM	-0.08	0.52	0.92

Remunerative content and detaching behaviour

Table 6.22 indicates that the presence of remunerative content is not a statistically significant predictor of negatively-valenced engagement behaviour in the form of detachment. The control variables for post month of the year indicate that detaching behaviour is less likely to occur in the later months of the year. Remunerative posts are less likely to result in detaching behaviour when the post is made in September (55% less likely), October (61% less likely), November (69% less likely) and December (75% less likely). This finding indicates that remunerative content posts made later in the year are preferable in order to mitigate the likelihood of users detaching from the content, compared to the baseline month of June.

There was no significant effect for post day of the week or post time of the day in predicting the likelihood of detaching behaviour occurring.

Table 6.22 Logistic Regression Showing Effect of Remunerative Content on Detaching Behaviour

SMEB	IV	B	Sig	Exp(B)
Detaching Behaviour	Remunerative	0.17	0.26	1.19
	Monday	0.06	0.77	1.06
	Tuesday	0.31	0.11	1.37
	Thursday	0.20	0.29	1.22
	Friday	0.15	0.57	1.16
	Saturday	0.19	0.51	1.21
	Sunday	0.13	0.49	1.14
	January	0.18	0.48	1.19
	February	-0.32	0.21	0.72
	March	0.20	0.37	1.22
	April	0.11	0.64	1.11
	May	0.04	0.86	1.04
	July	-0.10	0.69	0.91
	August	-0.06	0.81	0.94
	September	-0.80	0.00	0.45
	October	-0.95	0.00	0.39
	November	-1.18	0.00	0.31
	December	-1.37	0.00	0.25
	AM	-0.14	0.38	0.87

Remunerative content and social media engagement behaviour comparison

The summarised binary logistic regression results for each SMEB are displayed in Table 6.23. The presence of remunerative content significantly predicts the occurrence of active, positively-valenced SMEBs, creating and contributing. The greatest odds ratio was for contributing behaviour in the form of likes, which increased in likelihood of occurrence by almost 2 times when remunerative content was present within a post. The presence of remunerative content was found to have a significant negative impact on dormant behaviour. This means that when remunerative content is present within a social media posts, users are more active in their expressions of engagement behaviour.

H3: The presence of remunerative content facilitates passive, positively-valenced social media engagement behaviour is therefore not supported.

This result suggests that remunerative content can facilitate the occurrence of active, positively-valenced SMEB in the form of creating and contributing. However, there is

no significant relationship between remunerative content and consuming behaviour.

This could be explained by the presence of a call-to-action within remunerative posts, for example ‘share/like to win’ or ‘share/like for discount/promotion’ etc., causing the increase in contributing behaviour. There is no evidence to suggest that remunerative details content facilitate increased consumption of the content. Finally, the presence of remunerative content within a social media posts decreased the odds that users would remain dormant.

Table 6.23 Summarised Logistic Regression Results for H3

Content	SMEB	b	Sig	Exp(B)
Remunerative	Creating	0.25	0.04	1.29
	Contributing (shares)	0.57	0.00	1.77
	Contributing (likes)	0.67	0.02	1.96
	Consuming	0.66	0.28	1.94
	Dormancy	-0.29	0.02	0.75
	Detaching	0.17	0.26	1.19

6.2.6 Remunerative Content Level

Remunerative content may include monetary incentives, special offers, giveaways, prize drawings, monetary compensations (Füller, 2006), contests and sweepstakes (Cvijikj & Michahelles, 2013). In this study, the remunerative content variable contains 5 specific types of remunerative content (see Table 5.8, Section 5.5.3, Chapter 5). In line with H1a and as previously discussed, it was hypothesised that with increased levels of remunerative content, users would experience information overload. Hence,

H3a: High levels of remunerative content weaken the relationship with positively-valenced social media engagement behaviours.

Binary logistic regression was conducted with remunerative content as a categorical independent variable. The categorical variable for remunerative content level has values

ranging from 1 to 4, with 4 being the highest number of remunerative elements a post in this study had. A total of four categorical, dichotomous independent variables were created by dummy coding in order to indicate the presence (1) or absence (0) of each specific level of content.

In the following section, the results regarding remunerative content level and its effect on the occurrence of creating, contributing (likes), contributing (shares) and consuming SMEB are discussed, as presented in Table 6.24.

Table 6.24 Logistic Regression Showing Effect of Remunerative Content Level on SMEB

SMEB	Content Level	b	Sig	Exp(B)
Creating behaviour	Remunerative (1)	0.27	0.05	1.31
	Remunerative (2)	0.27	0.30	1.31
	Remunerative (3)	-0.81	0.51	0.45
	Remunerative (4)	-20.76	1.00	0.00
Contributing behaviour (shares)	Remunerative (1)	0.52	0.00	1.68
	Remunerative (2)	0.86	0.00	2.37
	Remunerative (3)	-21.11	1.00	0.00
	Remunerative (4)	21.63	1.00	2478549027.84
Contributing behaviour (likes)	Remunerative (1)	0.43	0.49	1.53
	Remunerative (2)	17.12	1.00	27243354.93
	Remunerative (3)	15.87	1.00	7822914.41
	Remunerative (4)	15.95	1.00	8453525.37
Consuming behaviour	Remunerative (1)	-0.26	0.06	0.77
	Remunerative (2)	-0.43	0.09	0.65
	Remunerative (3)	0.46	0.72	1.58
	Remunerative (4)	20.23	1.00	611397334.86

H3a suggested that *high levels of remunerative content weaken the relationship with positively-valenced SMEBs*. The results presented in Table 6.24 support a relationship between lower levels of remunerative content and active, positively-valenced engagement behaviours in the form of creating and contributing (shares). For creating behaviour, the lowest level remunerative content (1) has a significant and positive

effect. However, when the level of remunerative content within the post increases from 1 to 2, 3 or 4, there is no support to suggest a significant effect on creating behaviour. Similarly, for contributing behaviour in the form of shares, a maximum level of remunerative content appears evident, beyond which there is no significant effect on contributing behaviour in the form of shares. Remunerative content levels of 1 and 2 significantly and positively predict an increase in the odds of a post being shared. However when the remunerative content level is increased to 3 items or more, there is no statistical significance to support a relationship with positively-valenced engagement behaviour. Hypothesis 3a: *high levels of remunerative content weaken the relationship with positively-valenced SMEBs* is therefore partially supported.

6.2.7 Relational Content Presence

Users are motivated by social and relational needs when creating user generated content online, as they find it a comfortable space in which to reveal feelings and share views and opinions (Leung, 2009). Within Facebook, users are strongly motivated by socialising needs when participating in specific interest groups (Park et al., 2009). The socialisation benefits gained include gaining support from other members, meeting new and interesting people and a developing sense of belonging to the community (Park et al., 2009). Customers who are highly motivated by socialisation needs frequently participate in human-to-human interactions, as defined by Ko et al. (2005). It is hypothesised that relational social media content which stimulates interaction amongst customers will be successful in facilitating positively-valenced SMEB;

H4. *The presence of relational content facilitates active, positively-valenced social media engagement behaviour.*

Tables 6.25 through 6.30 show the results for relational content and creating, contributing, consuming, dormant and detaching behaviour. Additionally, each table includes the results regarding the effect of the control variables post day of the week, post month of the year, and post time of the day (AM or PM). Statistically significant results are presented in bold.

Relational content and creating behaviour

Table 6.25 shows the results of the binary logistic regression predicting the occurrence of creating behaviour as a consequence of relational social media content. Relational content is a significant predictor of creating behaviour. The odds of creating behaviour occurring are increased by 1.41 times, compared to posts with no relational content.

This model also controls for the post day of the week, post time of the year (month) and post time of the day (AM or PM). Relational social media content is less likely to predict the occurrence of creating SMEB when it is posted on a Thursday (24% less likely) or Sunday (37% less likely), compared to posts made on Wednesdays. The month of the year in which the relational social media post is made has an effect on the likelihood of active, positively-valenced SMEB in the form of creating occurring. The odds of relational content resulting in creating behaviour occurring are significantly reduced when the post is made in March (39% less likely), April (31% less likely), July (41% less likely), August (38% less likely), September (40% less likely), and October (42% less likely). The time of day in which the relational post is made does not significantly impact on the odds of creating behaviour occurring.

Table 6.25 Logistic Regression Showing Effect of Relational Content Presence on Creating Behaviour

SMEB	IV	B	Sig	Exp(B)
Creating behaviour	Relational	0.34	0.00	1.41
	Monday	-0.21	0.15	0.81
	Tuesday	-0.16	0.30	0.85
	Thursday	-0.28	0.05	0.76
	Friday	0.03	0.87	1.03
	Saturday	-0.01	0.97	0.99
	Sunday	-0.46	0.00	0.63
	January	-0.35	0.11	0.70
	February	-0.19	0.36	0.82
	March	-0.50	0.01	0.61
	April	-0.37	0.06	0.69
	May	-0.20	0.32	0.82
	July	-0.53	0.01	0.59
	August	-0.48	0.02	0.62
	September	-0.51	0.01	0.60
	October	-0.55	0.01	0.58
	November	-0.33	0.10	0.72
	December	-0.25	0.24	0.78
	AM	-0.07	0.59	0.94

Relational content and contributing behaviour (shares)

Contributing behaviour in the form of shares is significantly predicted by the presence of relational content. The results of the binary logistic regression in Table 6.26 show that when relational content is present within a post, the odds of the post being 'shared' are increased by 1.30 times compared to when the posts has no relational content present. Relational posts are less likely to be shared on Mondays (30% less likely), Thursdays (30% less likely) and Sundays (35% less likely) compared to Wednesdays. The month in which the relational content post was made did not significantly influence the likelihood of contributing behaviour in the form of shares occurring. The likelihood of sharing behaviour occurring is decreased by 37% when the post is made in the morning (AM).

Table 6.26 Logistic Regression Showing Effect of Relational Content Presence on Contributing Behaviour (Shares)

SMEB	IV	B	Sig	Exp(B)
Contributing behaviour (shares)	Relational	0.26	0.01	1.30
	Monday	-0.35	0.02	0.70
	Tuesday	-0.09	0.54	0.91
	Thursday	-0.36	0.01	0.70
	Friday	-0.19	0.33	0.83
	Saturday	-0.31	0.17	0.73
	Sunday	-0.43	0.00	0.65
	January	0.05	0.80	1.06
	February	-0.14	0.50	0.87
	March	-0.20	0.31	0.82
	April	-0.17	0.40	0.85
	May	-0.18	0.38	0.84
	July	-0.18	0.38	0.84
	August	-0.32	0.14	0.73
	September	-0.27	0.18	0.76
	October	-0.24	0.27	0.79
	November	-0.05	0.81	0.95
	December	-0.20	0.36	0.82
	AM	-0.46	0.00	0.63

Relational content and contributing behaviour (likes)

Table 6.27 demonstrates that relational content presence is a significant predictor of contributing behaviour in the form of likes. When a post contains relational content, the likelihood that contributing behaviour in the form of likes will occur is increased by 2.2 times, compared to when it does not contain relational content.

Relational content posts made on Tuesdays and Sundays significantly reduce the odds of contributing behaviour in the form of likes occurring, by 48% and 60% respectively compared to posts made on Wednesdays. The variables for post month of the year indicate that contributing behaviour in the form of likes is less likely to occur when the post is made in March (66% less likely) and November (74% less likely) show that when posts are made in March and November. When relational posts were made in the morning, the odds of contributing behaviour in the form of likes occurring decreased by 37%.

Table 6.27 Logistic Regression Showing Effect of Relational Content Presence on Contributing Behaviour (Likes)

SMEB	IV	B	Sig	Exp(B)
Contributing behaviour (likes)	Relational	0.79	0.00	2.20
	Monday	-0.48	0.11	0.62
	Tuesday	-0.66	0.03	0.52
	Thursday	-0.34	0.25	0.71
	Friday	0.29	0.51	1.34
	Saturday	-0.06	0.89	0.94
	Sunday	-0.91	0.00	0.40
	January	-0.76	0.08	0.47
	February	-0.78	0.06	0.46
	March	-1.10	0.00	0.33
	April	-0.55	0.18	0.58
	May	-0.06	0.90	0.94
	July	-0.46	0.27	0.63
	August	-0.73	0.09	0.48
	September	0.26	0.59	1.30
	October	-0.53	0.23	0.59
	November	-1.35	0.00	0.26
	December	-0.30	0.50	0.74
	AM	-0.47	0.02	0.63

Relational content and consuming behaviour

Consuming behaviour characterises a passive, positively-valenced form of SMEB.

Users click on photos, read posts, click on links and watch videos when they engage in consuming SMEB.

The presence of relational content is a significant predictor of the occurrence of consuming behaviour, with the odds ratio of 3.73 indicating that for posts with relational content present, the likelihood of consuming behaviour occurring increases by 3.7 times, compared to posts without relational content. The control variables included in this model of: day, month and time, did not have a statistically significant effect on the occurrence of SMEB in the form of consuming.

Table 6.28 Logistic Regression Showing Effect of Relational Content Presence on Consuming Behaviour

SMEB	IV	B	Sig	Exp(B)
Consuming behaviour	Relational	1.32	0.00	3.73
	Monday	-1.41	0.07	0.24
	Tuesday	-0.60	0.48	0.55
	Thursday	-1.00	0.21	0.37
	Friday	-0.53	0.60	0.59
	Saturday	16.27	1.00	11633903.20
	Sunday	-0.98	0.23	0.37
	January	0.46	0.71	1.59
	February	0.05	0.96	1.05
	March	0.95	0.44	2.59
	April	0.11	0.91	1.12
	May	0.71	0.57	2.03
	July	0.10	0.92	1.10
	August	-0.55	0.56	0.58
	September	-0.28	0.77	0.76
	October	-0.91	0.30	0.40
	November	-1.40	0.09	0.25
	December	-1.04	0.22	0.35
	AM	0.00	0.99	1.00

Relational content and dormant behaviour

Relational content presence within social media is not a statistically significant predictor of dormant behaviour, as shown in Table 6.29. Dormant behaviour is characterised by users who are exposed to the social media post (which contains relational content) and do not take any actions to consume, contribute to or create content.

The control variable, post day of the week, increased the odds of dormant behaviour occurring. Dormant behaviour was more likely to occur when a relational post was made on a Thursday (1.4 times more likely) and Sunday (1.47 times more likely), compared to posts made on a Wednesday. In contrast, when relational content is posted on a Saturday, the odds of dormant behaviour occurring are reduced by 35%.

Relational social media content posted in April and July increases the odds of dormant SMEB occurring by 1.57 and 1.91 times respectively, compared to the baseline month

of June. Relational content posts made in January reduce the likelihood of dormant behaviour occurring by 55%. The post time of the day did not significantly impact on the likelihood of dormant behaviour occurring.

Table 6.29 Logistic Regression Showing Effect of Relational Content Presence on Dormant Behaviour

SMEB	IV	B	Sig	Exp(B)
Dormant behaviour	Relational	-0.11	0.26	0.90
	Monday	0.25	0.10	1.28
	Tuesday	0.20	0.21	1.22
	Thursday	0.34	0.02	1.40
	Friday	0.02	0.93	1.02
	Saturday	-0.44	0.05	0.65
	Sunday	0.38	0.01	1.47
	January	-0.80	0.00	0.45
	February	-0.11	0.60	0.89
	March	0.36	0.08	1.43
	April	0.45	0.03	1.57
	May	0.13	0.53	1.14
	July	0.65	0.00	1.91
	August	0.08	0.73	1.08
	September	0.04	0.84	1.04
	October	-0.06	0.77	0.94
	November	0.07	0.74	1.07
December	-0.18	0.39	0.83	
AM	-0.06	0.62	0.94	

Relational content and detaching behaviour

Relational content presence is not a statistically significant predictor of detaching SMEB, as shown in Table 6.30. The only type of social media content that predicted the occurrence was therefore entertaining content, which was shown in Table 6.14 to increase the odds of detaching behaviour occurring by 1.24 times.

The control variables for post month of the year indicate that detaching behaviour is less likely to occur in the later months of the year. The odds of detaching behaviour are reduced in September (55% less likely), October (61% less likely), November (69% less likely) and December (75% less likely), compared to June. This finding is consistent

with the effects of post month of the year and detaching behaviour for informational content (Table 6.6), entertaining content (Table 6.14) and remunerative content (Table 6.22). This finding indicates that relational content posts made later in the year are preferable in order to mitigate the likelihood of users detaching from the content, compared to the baseline month of June. Post day of the week and time of the day did not have a statistically significant effect on the likelihood of detaching behaviour occurring.

Table 6.30 Logistic Regression Showing Effect of Relational Content Presence on Detaching Behaviour

SMEB	IV	B	Sig	Exp(B)
Detaching Behaviour	Relational	-0.03	0.81	0.97
	Monday	0.05	0.78	1.05
	Tuesday	0.31	0.11	1.37
	Thursday	0.20	0.29	1.22
	Friday	0.14	0.59	1.15
	Saturday	0.18	0.53	1.20
	Sunday	0.13	0.50	1.14
	January	0.17	0.49	1.19
	February	-0.33	0.21	0.72
	March	0.18	0.42	1.20
	April	0.10	0.66	1.10
	May	0.03	0.89	1.03
	July	-0.10	0.67	0.90
	August	-0.06	0.81	0.94
	September	-0.80	0.00	0.45
	October	-0.94	0.00	0.39
	November	-1.18	0.00	0.31
	December	-1.37	0.00	0.25
	AM	-0.15	0.35	0.86

Relational content and social media engagement behaviour comparison

Table 6.31 shows that the presence of relational content significantly predicts an increase in the likelihood that positively-valenced, active and passive SMEB occurs. The highest odds ratio for consuming behaviour of 3.73 indicates that for posts which have relational content present, the odds that the content will be consumed increase by almost 3.8 times, compared to posts which do not have relational content.

Significant and positive relationships are also found between relational content presence and creating behaviour (1.4 times more likely to occur), contributing behaviour in the form of likes (2.2 times more likely to occur) and contributing behaviour in the form of shares (1.3 times more likely to occur).

H4: *The presence of relational content facilitates active, positively-valenced social media engagement behaviour* is supported. However the likelihood of passive, positively-valenced SMEB occurring as a result of relational content presence is much stronger, with an odds ratio of 3.73.

Table 6.31 Summarised Logistic Regression Results for H4

Content	SMEB	b	Sig	Exp(B)
Relational	Creating	0.34	0.00	1.41
	Contributing (likes)	0.79	0.00	2.20
	Contributing (shares)	0.26	0.01	1.30
	Consuming	1.32	0.00	3.73
	Dormancy	-0.11	0.26	0.90
	Detaching	-0.03	0.81	0.97

6.2.8 Relational Content Level

The summarised results in Table 6.31 show that relational content presence significantly predicts the occurrence of creating, contributing (shares and likes) and consuming behaviour. In this section, this effect is explored further by applying binary logistic regression to test how the specific levels of relational content effects each of the behaviours. H4a suggests that *high levels of relational content weaken the relationship with positively-valenced social media engagement behaviours*.

The relational content category contained 15 relational elements (see Table 5.9, Section 5.5.3, Chapter 5). The results showed that the maximum number of relational elements in any one post within the study was 7 elements. The relational content categorical

variables used to test the effect of each level therefore range in values from 1 (minimum level of relational content) to 7 (maximum level of relational content). In order to input these into the model as independent variables, seven dummy coded dichotomous variables were created with '1' indicating presence of the relevant level of content, and '0' indicating the absence. The results for the effect of the 7 levels of relational content and the consequent effects on SMEB are summarised in Table 6.32.

Table 6.32 Logistic Regression Showing Effect of Relational Content Level on SMEB

SMEB	Content Level	b	Sig	Exp(B)
Creating Behaviour	Relational (1)	0.25	0.02	1.29
	Relational (2)	0.37	0.00	1.45
	Relational (3)	0.58	0.00	1.79
	Relational (4)	0.39	0.14	1.48
	Relational (5)	1.00	0.03	2.71
	Relational (6)	-0.56	0.52	0.57
	Relational (7)	21.72	1.00	2696854057.59
Contributing behaviour (shares)	Relational (1)	0.22	0.04	1.25
	Relational (2)	0.23	0.06	1.25
	Relational (3)	0.50	0.00	1.65
	Relational (4)	0.44	0.10	1.55
	Relational (5)	-0.14	0.76	0.87
	Relational (6)	-0.38	0.66	0.68
	Relational (7)	21.60	1.00	2401099102.04
Contributing behaviour (likes)	Relational (1)	0.57	0.00	1.77
	Relational (2)	0.92	0.00	2.51
	Relational (3)	1.34	0.00	3.81
	Relational (4)	1.09	0.07	2.96
	Relational (5)	19.41	1.00	270115201.31
	Relational (6)	19.08	1.00	192637748.97
	Relational (7)	20.44	1.00	754128574.71
Consuming behaviour	Relational (1)	0.99	0.02	2.68
	Relational (2)	1.65	0.01	5.22
	Relational (3)	1.67	0.11	5.32
	Relational (4)	17.77	1.00	52090846.02
	Relational (5)	17.99	1.00	64966239.42
	Relational (6)	17.10	1.00	26704715.45
	Relational (7)	18.91	1.00	163570271.02

Hypothesis 4a suggested that high levels of relational content weaken the relationship with positively-valenced engagement behaviour. In Table 6.32 it can be seen that as the level of relational content increases, so do the odds ratios for creating, contributing (shares), contributing (likes) and consuming SMEBs. However, for each of these behaviours, the effect is significant to a certain level of relational content, beyond which there is no statistical support to predict the occurrence of the behaviour. For creating behaviour, this point is at the level of 5. For higher relational content levels of 6 and 7, there is no statistically significant effect on creating behaviour. Relational content levels of 3 and under significantly increase the odds of contributing behaviour in the form of shares and likes. For higher levels of relational content (4 to 7) there is no statistical support for a relationship with active, positively-valenced engagement behaviour. The prediction of passive, positively-valenced engagement behaviour is also limited by the level of relational content within the post. Table 6.32 indicates that while 1 and 2 elements of relational content within a post significantly increase the odds of consuming behaviour occurring, there is no statistically significant relationship between high levels (3 to 7) of relational content and consuming behaviour. H4a is therefore supported.

6.2.9 Social Media Content Presence Summary

The effects of each social media content type on each SMEB are summarised in Table 6.33. In this table, comparison of each engagement behaviour and the relative effect of each social media content type are presented. Statistically significant content types are presented in bold.

Table 6.33 Binary Logistic Regression Results for Social Media Content and Social Media Engagement Behaviour

SMEB	Content Type	b	Sig	Exp(B)
Creating	Informational	.34	.00	1.41
	Entertaining	.34	.00	1.41
	Remunerative	0.25	0.04	1.29
	Relational	0.34	0.00	1.41
Contributing (Likes)	Informational	.90	.00	2.46
	Entertaining	.54	.05	1.24
	Remunerative	0.67	0.02	1.96
	Relational	0.79	0.00	2.20
Contributing (Shares)	Informational	.65	.00	1.91
	Entertaining	.34	.00	1.41
	Remunerative	0.57	0.00	1.77
	Relational	0.26	0.01	1.30
Consuming	Informational	.82	.03	2.27
	Entertaining	-.01	.97	.99
	Remunerative	0.66	0.28	1.94
	Relational	1.32	0.00	3.73
Dormant	Informational	-.07	.54	.93
	Entertaining	-.43	.00	.65
	Remunerative	-0.29	0.02	0.75
	Relational	-0.11	0.26	0.90
Detaching	Informational	.29	.06	1.33
	Entertaining	.216	.05	1.24
	Remunerative	0.17	0.26	1.19
	Relational	-0.03	0.81	0.97

Table 6.33 shows that the presence of informational, entertaining, remunerative and relational content within a social media post can facilitate the occurrence of active, positively-valenced SMEB in the form of creating behaviour. The highest odds ratios are for informational content, relational content and entertaining content. Similarly, the presence of all four content types can facilitate the occurrence of active, positively-valenced engagement behaviour in the form of contributing behaviour. This is measured through shares and likes.

For contributing behaviour in the form of likes, whilst the presence of all four content types support a significant and positive relationship, the behaviour is most likely to

occur when informational content is present ($\text{Exp}(B) = 2.46$). When predicting the occurrence of contributing behaviour in the form of shares, the results are similar. The presence of all four of the content types significantly and positively increases the odds that SMEB in the form of contributing (shares) will occur. However sharing is most likely to occur when informational content is present ($\text{Exp}(B) = 1.91$).

With regards to passive, positively-valenced engagement behaviour (consuming), the presence of entertaining and remunerative social media content were unable to significantly predict occurrence. However, the presence of informational content within a post, and the presence of relational content within a post, significantly and positively increased the odds of consuming SMEB occurring. The greatest odds ratio was observed for relational content ($\text{Exp}(B) = 3.73$) indicating that the presence of relational content is the strongest predictor of passive, positively-valenced SMEB.

The presence of entertaining social media content and remunerative social media content significantly reduced the odds of dormant SMEB occurring. This effect was greater for entertaining content, which reduced the odds of dormant behaviour occurring by 35%.

6.2.10 Social Media Content Level Summary

This section presented the results of binary logistic regression which detailed the effects of specific levels of informational (H1a), entertaining (H2a), remunerative (H3a) and relational content (H4a) on SMEB.

The level of informational, entertaining, remunerative, and relational content present within a social media post had a significant effect on the likelihood of active, positively-valenced SMEB in the form of creating occurring. For each of these content types, it

was found that creating behaviour was only significantly and positively predicted at certain levels of content. Regarding informational content, as the level of informational content within a post increased from 2 to 7, the likelihood of creating behaviour occurring also increased. Lower levels of entertaining content were required in order to facilitate creating behaviour, with higher levels of entertaining content showing an information overload effect. The level of 4 for entertaining content had the greatest impact on the likelihood of creating behaviour occurring. An even lower level of remunerative content was required in order for creating behaviour to be significantly predicted. The results showed that only one element of remunerative content within a post has a significant and positive effect. For relational content, the maximum level of content that significantly predicted creating behaviour was 5. These findings suggest that users are more tolerant of higher levels of informational (up to 7 elements) and relational (up to 5 elements) content in regards to the prediction of creating behaviour. A much lower level of remunerative content (1 element) is required in order to significantly predict an increase in the occurrence creating behaviour.

The level of informational, entertaining, remunerative and relational content within a post was a significant determinant of the occurrence of SMEB in the form of contributing. When predicting the occurrence of contributing behaviour in the form of shares, the notion of information overload was supported. A maximum level of content was determined for each type of social media content in order to significantly and positively predict the likelihood of the post being shared. The level was greatest for informational content (7 elements) and lower for entertaining content (3 elements), relational content (3 elements), and remunerative content (2 elements).

The prediction of contributing behaviour in the form of likes was also dependent on the level of informational, entertaining and relational content present within a post.

Informational content with up to 5 elements significantly and positively predicted the occurrence of contributing behaviour in the form of likes occurring, while the level of entertaining content (maximum of 2 elements) and relational content (3) required to predict contributing behaviour in the form of likes was lower. The level of remunerative content within a post did not significantly impact on the occurrence of contributing behaviour in the form of likes. Consistent with the predictions regarding informational content level and creating behaviour as well as contributing behaviour in the form of shares, a higher level of informational content was tolerated by users when predicting the odds of the post being 'liked'.

When predicting consuming SMEB, the level of informational, entertaining and remunerative content did not have a statistically significant effect. . Table 6.32 indicated that 1 and 2 elements of relational content within a post can significantly increase the odds of consuming behaviour occurring. However, there is no statistically significant relationship between higher levels (3 to 7) of relational content and consuming behaviour, indicating a point of information overload occurring. The level of relational content within a post did however have an effect on the likelihood of consuming behaviour occurring.

6.3 Interaction Effects

Within social media, there is potential for content to possess multiple cues and thus deliver content which may simultaneously contain entertaining, informational, remunerative and relational content. The four social media content categories outlined and tested in the previous sections are therefore not mutually exclusive.

It was expected that highly utilitarian social media content (informational or remunerative content) presented simultaneously with highly hedonic social media content (entertaining or relational content) would cause information overload and a conflict of processing styles, resulting in a lack of attention or content avoidance by the consumer. Thus:

***H5a:** The simultaneous presence of informational and entertaining content facilitates negatively-valenced social media engagement behaviours.*

***H5b:** The simultaneous presence of informational and relational content facilitates negatively-valenced social media engagement behaviours.*

***H5c:** The simultaneous presence of informational and remuneration content facilitates positively-valenced social media engagement behaviours.*

***H5d:** The simultaneous presence of entertaining and remunerative content facilitates negatively-valenced social media engagement behaviours.*

***H5e:** The simultaneous presence of entertaining and relational content facilitates positively-valenced social media engagement behaviours.*

***H5f:** The simultaneous presence of relational and remunerative content facilitates negatively-valenced social media engagement behaviour.*

The results regarding the interaction effects are summarised in Table 6.34 and described throughout the following sections.

Table 6.34 Interaction Effects Summary

SMEB	Interactions (amount of content)	b	Sig	Exp(B)
Creating	Entertaining (1) by Informational (1)	-0.77	0.01	0.46
	Entertaining (1) by Informational (4)	-1.19	0.00	0.30
	Entertaining (1) by Informational (5)	-1.43	0.00	0.24
	Entertaining (1) by Informational (8)	-3.29	0.04	0.04
	Entertainment (2) By Relational (2)	-.94	.01	.39
	Entertainment (3) by Relational (1)	1.86	.01	6.44
Contributing (Shares)	Entertaining (1) by Informational (4)	-.90	.02	.40
	Informational (1) by Relational (2)	-0.72	0.04	0.49
Contributing (Likes)	Relational (1) by Remunerative (1)	1.55	0.04	4.70
Dormancy	Entertaining (1) by Informational (3)	1.13	0.00	3.10
	Entertaining (1) by Informational (5)	1.27	0.01	3.56
	Entertaining (1) by Informational (6)	1.67	0.03	5.30
	Informational (1) by Relational (2)	0.83	0.03	2.30
	Informational (4) by Relational (2)	1.31	0.01	3.71
	Informational (4) by Relational (4)	3.69	0.02	40.16
	Informational (6) by Relational (2)	2.96	0.05	19.32
	Informational (6) by Relational (4)	4.18	0.04	65.48
	Entertaining (1) by Remunerative (1)	0.95	0.00	2.58
	Relational (3) by Remunerative (1)	1.22	0.02	3.39
Detaching	Entertaining (1) by Informational (4)	-1.13	0.03	0.32
	Entertainment (3) by Relational (2)	1.74	0.04	5.68

6.3.1 Informational and Entertaining Content Interaction

In this section, the results of informational content interactions with entertaining content are presented. The full results are presented in Appendix E and significant relationships are summarised in Table 6.34. The results support a negative interaction effect between informational and entertaining content on the prediction of creating behaviour. The results indicate that the odds of creating behaviour occurring when the post contains one element of informational and one element of entertaining content decreased by 54%. Similarly, 1 element of entertaining content, combined with 4 and 5 elements of informational content decreased the odds of creating behaviour occurring by 70% and 76% respectively. A higher level of informational content within a post (8 elements)

combined with 1 element of entertaining content also reduces the odds of creating behaviour occurring by 96%.

These findings suggest a negative effect of combined conflicting content types such as hedonic (entertaining) and utilitarian (informational) on creating behaviour. The presence of informational and entertaining content within a post were previously found to independently increase the likelihood of creating behaviour occurring. However, when combined, the likelihood of creating behaviour occurring significantly decreased.

There was no statistical significance to suggest that the simultaneous presence of informational and entertaining content interactions predicted the occurrence of contributing behaviour in the form of shares or likes.

The interaction between entertaining content and informational content was a significant and positive predictor of the occurrence of dormant behaviour. The results in Table 6.34 indicate that the simultaneous presence of one element of entertaining content with greater levels of informational content increase the odds of dormant behaviour occurring by 3.1 times (3 elements of informational content, 1 element of entertaining), 3.56 times (5 elements of informational and 1 element of entertaining) and 5.3 times (6 elements of informational content, 1 element of entertaining). These results indicate that combining entertaining content with informational content at certain levels facilitates the occurrence of dormant behaviour. As the level of informational content that is presented simultaneously with entertaining content increases, the effect size increases.

Table 6.34 shows that when informational content (specifically 4 elements) is presented simultaneously with one element of entertaining content, the likelihood of detaching

behaviour occurring is decreased by 68%.

H5a: *The simultaneous presence of informational and entertaining content facilitates negatively-valenced SMEBs* is therefore not supported. While the presence of informational and entertaining content increased the likelihood of occurrence of neutral SMEB in the form of dormancy occurring, the interaction reduced the odds of negatively-valenced engagement behaviour in the form of detaching occurring. However, there is evidence to suggest that the simultaneous presence of informational and entertaining content has a negative effect on the likelihood of active, positively-valenced engagement behaviour in the form of creating and contributing (shares) occurring.

6.3.2 Informational and Relational Content Interaction

H5b predicted that the simultaneous presence of informational and relational content facilitates negatively-valenced SMEBs. The results indicated that the simultaneous presence of informational and relational content within a post did not have a statistically significant effect on the likelihood of positively-valenced engagement behaviour (creating, contributing and consuming) occurring. The simultaneous presence of informational and relational content increased the odds of the neutral state, dormancy behaviour occurring. Table 6.34 shows that when one element of informational content is presented simultaneously with 2 elements of relational content, the odds of dormant behaviour occurring are increased by 2.3 times. When the level of informational content increases to 4 elements and is presented simultaneously with 2 elements of relational content, the odds of dormant behaviour occurring increase by 3.71 times. This level of informational content (4 elements) presented simultaneously with a greater level of relational content (4 elements) has a significant effect on dormant behaviour, increasing

the odds of dormant behaviour occurring by 40.16 times. Further, a greater amount of informational content (6 elements) combined with relational content (4 elements) increased the odds of dormant behaviour occurring by 65.48 times. There was no significant effect on negatively-valenced SMEB occurring, as a result of the combined informational and relational content presence. Therefore, H5b is not supported. It is interesting to note however, that the simultaneous presence of these types of content does significantly increase the odds of users remaining dormant in their engagement behaviour.

6.3.3 Informational and Remunerative Content Interaction

Hypothesis 5c predicted that as informational and remunerative content are both ‘utilitarian’ content types, there will be no conflicting demands placed on the user. The user can therefore adequately process the information. Hence, it was predicted that; *the presence of informational and remunerative content facilitates positively-valenced engagement behaviours*. The results (Appendix E) show no significant effects of the simultaneous presence of informational and remunerative content on the prediction of SMEB. H5c is therefore *not supported*. This demonstrates that there is no benefit of combining informational content with remunerative content. It is possible that contrary to the initial expectation, the remunerative and informative components of the post do in fact pose conflicting demands on the reader and hence are not adequately processed.

6.3.4 Entertaining and Remunerative Content Interaction

H5d predicted that *the simultaneous presence of entertaining and remunerative content facilitates negatively-valenced social engagement behaviours*.

The results in Appendix E show that there were no significant effects regarding the

simultaneous presence of entertaining content and remunerative content on positively-valenced SMEBs.

The results support an interaction effect between 1 element of entertaining content and 1 element of remunerative content. As shown in Table 6.34, the entertaining (1) by remunerative (1) variable significantly and positively predicts the occurrence of dormant behaviour. The odds ratio of 2.58 indicates that when a post includes 1 element of remunerative and entertaining content, the likelihood that dormant behaviour will occur is increased by 2.58 times. There were no significant effects of the simultaneous presence of entertaining content and remunerative content on negatively-valenced SMEB. H5d: *The simultaneous presence of entertaining and remunerative content facilitates negatively-valenced social media engagement behaviours* is therefore not supported. This finding indicates that it is not necessarily detrimental to the brand to combine entertaining content with remunerative content.

6.3.5 Entertaining and Relational Content Interactions

Entertaining and relational content are both hedonic types of social media content. Therefore it was predicted that their effect on social media engagement would be positive, Hence, H5e predicted that *the simultaneous presence of entertaining and relational content facilitates positively-valenced social media engagement behaviours*.

The results, presented in Table 6.34, indicate a significant effect of the simultaneous presence of entertaining and relational content on active, positively-valenced engagement behaviour in the form of creating. The results are specific to the level of content within the post. For example, when a post contains an equal amount of entertaining content (2 elements) and relational content (2 elements), the odds of

creating behaviour occurring are decreased by 61%. However, when the post contains slightly more entertaining content (3 elements) and slightly less relational content (1 element), the result is very different. In this scenario, the likelihood of creating behaviour occurring is increased by 6.44 times.

The simultaneous presence of entertaining content and relational content within a post did not have a significant effect on positively-valenced SMEB in the form of contributing or consuming. Similarly, there was no significant effect of the simultaneous presence of entertaining content and relational content on the likelihood of dormant and behaviour occurring.

The simultaneous presence of entertaining and relational content within a social media post significantly increased the odds of detaching behaviour occurring at specific levels of content. Table 6.34 shows that the presence of 3 elements of entertaining content within a post, presented simultaneously with 2 elements of relational content increases the odds of detaching behaviour occurring by 5.68 times.

H5e: the simultaneous presence of entertaining and relational content facilitates positively-valenced social media engagement behaviours is therefore partially supported. The simultaneous presence of entertaining and relational content significantly predicted an increased in the odds of creating behaviour occurring. However this effect was dependent on the specific levels of entertaining and relational content that were simultaneously presented.

6.3.6 Relational and Remunerative Content Interaction

Hypothesis 5f predicted that *the simultaneous presence of relational and remunerative content facilitates negatively-valenced social media engagement behaviour*.

The simultaneous presence of relational and remunerative content did not have a statistically significant impact on the likelihood of creating, contributing or detaching behaviour occurring. The results in Table 6.34 show that there is an effect on dormant behaviour, but only at one specific level of the entertaining content and remunerative content. The results show that when three elements of relational content are presented simultaneously with 1 element of remunerative content, the odds of dormant behaviour occurring increase by 3.39 times.

As there were no significant effects identified regarding the simultaneous presence of relational and remunerative content on negatively-valenced engagement behaviour (detaching), H5f was not supported.

6.3.7 Interaction Effects Summary

This section tested the effects of social media content interactions on SMEBs.

Significant effects were found for three SMEBs; creating, contributing (shares) and dormancy. Table 6.34 provided a summary of the results. For the purpose of this summary, only statistically significant predictors of each SMEB were presented in this table.

It was expected that utilitarian social media content (informative and remunerative) presented simultaneously with hedonic social media content (entertaining and relational) would cause information overload and a conflict of processing styles, resulting in a lack of attention or content avoidance by the consumer. Thus:

H5a: The presence of informational and entertaining content facilitates negatively-valenced social media engagement behaviours.

H5b: The presence of informational and relational content facilitates negatively-valenced social media engagement behaviours.

H5c: The presence of informational and remuneration content facilitates positively-valenced social media engagement behaviours.

H5d: The presence of entertaining and remunerative content facilitates negatively-valenced social media engagement behaviours.

H5e: The presence of entertaining and relational content facilitates positively-valenced social media engagement behaviours.

H5f: The presence of relational and remunerative content facilitates negatively-valenced social media engagement behaviours.

The results in Table 6.34 indicate partial support for H5e, while H5a, H5b, H5c, H5d and H5f were not supported.

6.4 Moderation

Moderation process analysis is a regression based approach to statistical testing. The analysis was conducted through 'PROCESS' which is a computational tool for path analysis-based moderation and mediation analysis (Hayes, 2013). In order to test the hypotheses of the study concerning moderation effects, Hayes (2015) method of modifying the PROCESS model to estimate a simple moderation model with a three-category moderator was applied.

The hypotheses specified in Chapter 4 demonstrate a conceptual model in which three variables; media richness, congruity of the post and community size are estimated as moderating a single focal predictor's (in this study, social media content) effect on SMEB. The 'PROCESS' computational tool enables estimation in this type of model, by implementing the necessary computations for probing the interaction and visualising

the results.

The following section applies Hayes PROCESS Model 2 in order to test the moderation effects of community size, media richness and congruity of the post on the relationship between social media content and SMEBs. PROCESS Model 2 was chosen as the moderating variables were categorical variables, as discussed in the following section.

6.4.1 Hayes PROCESS Moderation Model with Three Category Moderator

Hayes (2013) PROCESS macro for SPSS provides a means for estimating a model with moderation of a variable X 's (social media content) on Y (SMEB) by moderator M (media richness, congruity and community size). Hayes (2015) method of 'hacking' PROCESS Model 2 was applied to estimate a simple moderation model with a moderator that is multi-categorical with three levels was applied in order to test the moderation effects. This process was outlined in Chapter 5, Section 5.7.2. The following sections present the results of the moderation analysis for media richness, congruity and community size, followed by a summary of the moderating effects.

6.4.2 Media Richness

Within social media content, specifically delivered by brands on Facebook, media richness is categorised into three levels as shown in Table 6.35. This operationalisation is derived from De Vries et al. (2012) and Cvijikj and Michahelles (2013); 1) Low media richness for status updates as they are in the form of written text, 2) medium richness for photos and images as they include pictorial content, 3) high vividness for videos as they offer sound and imagery.

Table 6.35 Richness Operationalisation

Media Richness Level	Operationalisation
Low	Status updates (text only)
Medium	Photos and images (imagery, no audio)
High	Videos (text, imagery and audio)

It was proposed that the richness of social media content (low, medium and high) moderates the relationships between social media content and SMEB as outlined in hypothesis 6; *H6: The strength of the relationship between social media content and social media engagement behaviour is directly related to media richness.*

Using the SPSS code to construct PROCESS Model 2 for a multi-categorical moderating variable (Hayes, 2015), tests of the moderation of the effect of informational, entertaining, remunerative and relational content on the varying types of SMEB, by media richness were achieved. Among the tests of moderation, richness was found to moderate one relationship: the effect of informational content on contributing behaviour in the form of shares. The results of this moderation effect are presented in the following section.

Moderation of the effect of informational content on contributing behaviour (shares) by richness

Using the SPSS code to construct PROCESS Model 2 for a multi-categorical moderating variable (Hayes, 2015), a test of the moderation of the effect of informational content level on creating behaviour by richness was achieved. The level of informational content used as the independent variable in this case is derived from the results in Section 6.2.2. Table 6.8 showed that informational content levels between 1 and 7 have a statistically significant, positive effect on the likelihood of contributing behaviour in the form of sharing occurring. Table 6.36 shows the test of interaction between media richness and consuming SMEB.

Table 6.36 Partial Output from PROCESS Model 2 Examining Moderation of the Effect of Informational Content on Contributing Behaviour (Shares) by Media Richness

R-square increase due to interactions	R2-chng	F	df1	df2	p
int_1 (information x status/link)	0.00	0.36	1.00	1823.00	0.55
int_2 (information x video)	0.00	7.43	1.00	1823.00	0.01
Both	0.00	3.99	2.00	1823.00	0.02

The “Both” row in Table 6.36 provides a test of the null hypothesis that media richness does not moderate the effect of informational content presence on contributing behaviour in the form of shares. The null hypothesis can be rejected, $F(2, 1823) = 3.99$, $p < 0.05$. In other words, the regression slope quantifying contributing behaviour (shares) as a function of informational content depends on media richness.

In order to visualise the moderation effect, the plot option within the PROCESS code generates a table (Table 6.37) of values of the moderator (D_1 status/link and D_2 video), focal predictor (X , informational content) and estimated values of Y (contributing behaviour, shares). The table contains estimates of contributing behaviour in the form of shares in each of the three groups of informational content level. The three groups are generated by PROCESS and defined as the sample mean (2.44) as well as a standard deviation below (0.95) and a standard deviation (3.94) above the mean, shown in the first column of Table 6.37.

Table 6.37 PROCESS Data for Visualising Conditional Effect of Informational Content on Contributing Behaviour (Shares)

Information Level	Video	Status/link	Contributing (shares)
0.95	0.00	0.00	0.95
2.44	0.00	0.00	1.06
3.94	0.00	0.00	1.16
0.95	0.00	1.00	0.38
2.44	0.00	1.00	0.45
3.94	0.00	1.00	0.51
0.95	1.00	0.00	0.14

2.44	1.00	0.00	0.97
3.94	1.00	0.00	1.80
0.95	1.00	1.00	-0.44
2.44	1.00	1.00	0.36
3.94	1.00	1.00	1.15

Given that the evidence suggests the relationship between informational content and contributing behaviour (shares) varies as a function of media richness, the next step is to probe the interaction by estimating the conditional effect of informational content in each of the three groups. In this model, the conditional effect of X (informational content) on Y (contributing behaviour, shares) depends on M (media richness) as shown in Table 6.38.

Table 6.38 Conditional Effect of Informational Content on Contributing Behaviour (Shares) At Values of the Moderator

Video	Status /link	Effect	se	t	p	LLCI	ULCI
0.00	0.00	0.07	0.02	3.60	0.00	0.03	0.11
0.00	1.00	0.04	0.04	1.23	0.22	-0.03	0.11
1.00	0.00	0.56	0.18	3.13	0.00	0.21	0.90

In the Table 6.38, the first row corresponds to video=0 and status/link=0, which therefore acts as the medium richness moderator group, i.e. the photo group. This output indicates that the conditional effect of informational content on contributing behaviour (shares) is 0.07 with a standard error of 0.02. This is statistically different from zero, $t = 3.60$, $p < 0.05$, or between 0.03 and 0.11 with 95% confidence.

Therefore, it can be reported that two medium richness posts which differ by one unit in informational content level are estimated to differ by 0.07 units in contributing (shares). This is the slope of the line for 'medium' in Figure 6.1. The remaining conditional effects are presented in Table 6.38 and correspond to the slopes of the lines for their respective groups in Figure 6.1. As can be seen in the output in Table 6.38, all

conditional effects are positive however only the effect for photo (row 1), and video (row 3) are significantly different from zero. The conditional effects are not equal, as implied by the claim that media richness moderates the effect of informational content level on contributing behaviour in the form of shares. The effects can be visualised by the varying slopes of the lines in Figure 6.1.

Figure 6.1 A Visual Representation of the Moderation of the Effect of Informational Content on Contributing Behaviour (Shares) by Richness

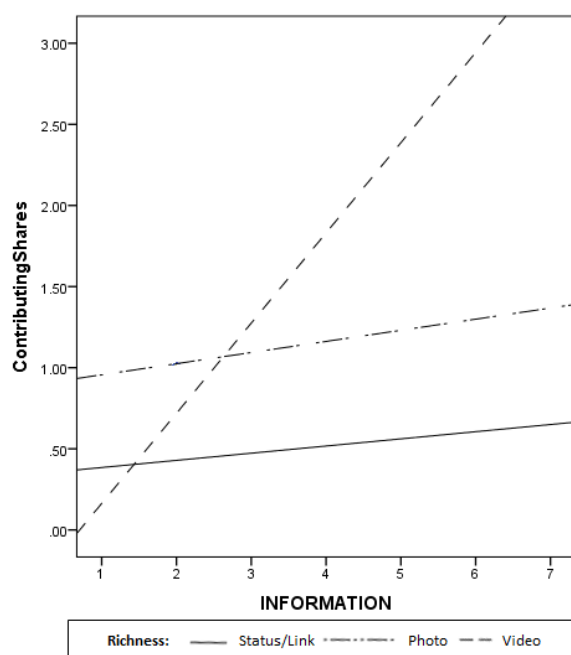


Figure 6.1 demonstrates that the slope of the line for video (high richness) is greater than that of lower richness categories photo and status/link. For posts with high richness (video), the effect of informational content on contributing behaviour is greater (0.56, $p = 0.05$), than for posts with medium richness (0.07, $p = <0.05$).

For posts with more than 2 pieces of information, the most effective media type in order to facilitate contributing behaviour in the form of shares is video. Comparatively, for informational posts of 1 to 2 pieces information, medium richness (photo) is the most effective mode of delivery in order to facilitate the occurrence of post sharing.

Media richness moderation summary

This section demonstrates that media richness moderates the relationship between informational content and contributing behaviour in the form of shares. The effect of informational content on contributing behaviour (shares) was greater with higher richness (categorised as video posts in this study). This finding indicates that while a significant relationship was found in previous sections between informational content presence and likelihood that a social media post would be ‘shared’, the effect is greater when the post is of higher richness, such as in the form of a video. There were no significant moderation effects concerning informational content and other types of SMEB. Similarly, media richness did not moderate the relationships between entertaining, remunerative and relational social media content and SMEB.

H6: The strength of the relationship between social media content and social media engagement behaviour is directly related to media richness is therefore partially supported. Media richness moderates the relationship between informational content and contributing behaviour (shares).

6.4.3 Congruity

The extent to which social media content is congruent or incongruent to the brand may enhance or mitigate different forms of SMEB. It is proposed that entertaining, informational, remunerative and relational posts may vary in their degree of congruity with the brand.

Social media content with low congruity is categorised as content which is not specifically related to the category (wine), brand or product. Content with medium congruity is relevant to the product category but does not focus on a specific brand or

product. Social media content with high congruity includes details of the brand and a specific product(s), and hence is highly contextually relevant to the social media brand page. As the congruity variable has three categories (Table 6.39), Hayes PROCESS Model 2 was applied in order to test the moderation effect.

Table 6.39 Congruity Operationalisation

Congruity	Operationalisation
Low	Post is not explicitly related to the category, the brand or a product.
Medium	Post relates to the category (wine)
High	Post relates to the brand and/or specific products

It is proposed that the congruity of social media content (low, medium and high) moderates the relationships between social media content and SMEB as outlined in Hypothesis 7;

H7: The strength of the relationship between social media content and social media engagement behaviour is inversely related to congruity.

Using the SPSS code to construct PROCESS Model 2 for a multi-categorical moderating variable (Hayes, 2015), tests of the moderation of the effect of informational, entertaining, remunerative and relational content on the various types of SMEB by congruity were achieved. Among the tests of moderation, congruity was found to moderate two relationships; the effect of informational content on contributing behaviour in the form of likes, and the effect of entertaining content on creating behaviour. The results of these moderation effects are presented in the following section.

Moderation of the effect of informational content on contributing behaviour (likes) by congruity

The results in Section 6.2.2, the results in Table 6.8 showed that 1, 2, 3, 4 and 5

elements of information within a post significantly and positively predict the occurrence of contributing SMEB in the form of likes. Therefore, informational content levels of 1 to 5 are used as the independent variable in this model which tests the moderation of the effect of informational content on contributing behaviour (likes) by congruity. Hayes (2015) PROCESS model was applied. Table 6.40 shows the test of interaction between congruity and contributing behaviour in the form of likes.

Table 6.40 Partial Output from PROCESS Model 2 Examining Moderation of the Effect of Informational Content on Contributing Behaviour (Likes) by Congruity

R-square increase due to interactions	R2-chng	F	df1	df2	p
int_1 (information x low congruity)	0.00	1.66	1.00	1743.00	0.20
int_2 (information x high congruity)	0.00	6.76	1.00	1743.00	0.01
Both	0.00	3.57	2.00	1743.00	0.03

The “Both” row in Table 6.40 provides a test of the null hypothesis that congruity does not moderate the effect of informational content presence on contributing behaviour in the form of likes. The null hypothesis is not supported, $F(2, 1743) = 3.5709$, $p < 0.05$. This indicates that the regression slope quantifying contributing behaviour (likes) as a function of informational content depends on congruity.

In order to visualise the moderation effect, the plot option within the PROCESS code generates a table (Table 6.41) of values of the moderator (D_1 congruity low and D_2 congruity high), focal predictor (X , informational content) and estimated values of Y (contributing behaviour, likes). The table contains estimates of contributing behaviour in the form of shares in each of the three groups of informational content level. The three groups are generated by PROCESS and defined as the sample mean (2.26) as well as a standard deviation below (1.01) and a standard deviation (3.52) above the mean, shown in the first column of Table 6.41.

Table 6.41 PROCESS Data for Visualising Conditional Effect of Informational Content on Contributing Behaviour (Likes)

Information Level	Congruity- High	Congruity - Low	Contributing (Likes)
1.01	0.00	0.00	1.72
2.26	0.00	0.00	1.94
3.52	0.00	0.00	2.17
1.01	0.00	1.00	1.74
2.26	0.00	1.00	1.89
3.52	0.00	1.00	2.03
1.01	1.00	0.00	2.05
2.26	1.00	0.00	2.11
3.52	1.00	0.00	2.17
1.01	1.00	1.00	2.08
2.26	1.00	1.00	2.05
3.52	1.00	1.00	2.03

Given that the evidence suggests the relationship between informational content and contributing behaviour (likes) varies as a function of congruity, the next step is to probe the interaction by estimating the conditional effect of informational content in each of the three groups. In this model, the conditional effect of X (informational content) on Y (contributing behaviour, likes) depends on M (congruity) as shown in Table 6.42.

Table 6.42 Conditional Effect of Informational Content on Contributing Behaviour (Likes) At Values of the Moderator

Congruity High	Congruity Low	Effect	se	t	p	LLCI	ULCI
0.00	0.00	0.18	0.04	4.32	0.00	0.10	0.26
0.00	1.00	0.11	0.03	4.02	0.00	0.06	0.17
1.00	0.00	0.05	0.03	1.60	0.11	-0.01	0.10

In the Table 6.42, the first row corresponds to the absence of high congruity (0) and low congruity (0) which therefore acts as the medium congruity moderator group. This output indicates that the conditional effect of informational content of contributing behaviour (likes) is 0.18 with a standard error of 0.04. This is statistically different from zero, $t = 4.32$, $p=0.05$, or between 0.10 and 0.26 with 95% confidence. Therefore, it can be reported that two medium congruity posts which differ by one unit in informational content level are estimated to differ by 0.18 units in contributing (likes). This is the

slope of the line for ‘Medium Congruity’ in Figure 6.2. The remaining conditional effects are presented in Table 6.42 and correspond to the slopes of the lines for their respective groups in Figure 6.1.

As can be seen in the output in Table 6.42, all conditional effects are positive. However only the effect for medium congruity (row 1), and low congruity (row 2) are significantly different from zero. The conditional effects are not equal, as implied by the claim that congruity moderates the effect of informational content level on contributing behaviour in the form of likes. The effects can be visualised by the varying slopes of the lines in Figure 6.2.

Figure 6.2 Visual Representation of the Moderation of the Effect of Informational Content on Contributing Behaviour (Likes) By Congruity.

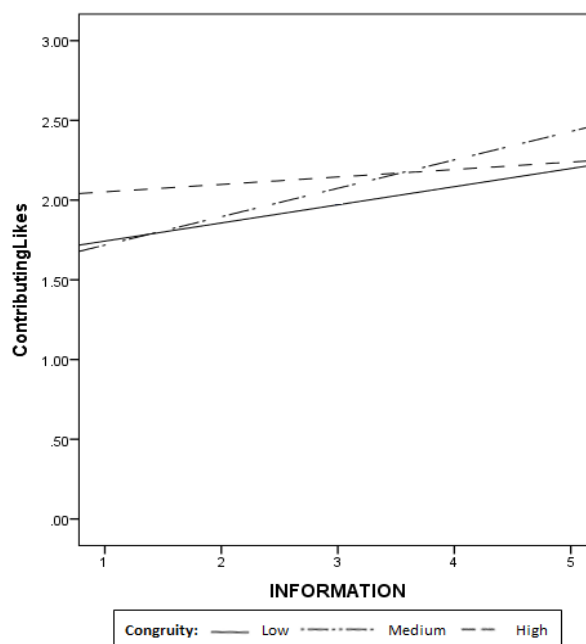


Figure 6.2 demonstrates that the slope of the line is greater for medium congruity (effect = 0.18, $p < 0.05$) than that of low congruity (effect = 0.11, $p < 0.05$). The finding indicates that the relationship between informational content and contributing behaviour in the form of likes is positively moderated by congruity. Therefore, posts with

informational content that are related to the category (medium congruity) have a greater effect on contributing behaviour in the form of likes, compared to posts with informational content that are not related to the category, product or brand (low congruity).

At low levels of informational content (1 and 2), a high level of congruity coincides with a greater amount of contributing behaviour in the form of likes occurring.

However, as the level of information within a post increases, medium and low congruity has a greater effect on contributing behaviour in the form of likes.

Moderation of the effect of entertaining content on creating behaviour by congruity

Using the SPSS code to construct PROCESS Model 2 for the multi-categorical variable; congruity (Hayes, 2015), a test of the moderation of the effect of entertaining content level on creating behaviour by congruity was achieved. The level of entertaining content used as the independent variable in this model is derived from the results in Section 6.2.4.

Table 6.43 shows the test of interaction between congruity and creating SMEB.

Table 6.43 Partial Output from PROCESS Model 2 Examining the Moderation of the Effect of Entertaining Content on Creating Behaviour by Congruity

R-square increase due to interactions	R2-chng	F	df1	df2	p
int_1 (entertainment x low congruity)	0.0009	.9849	1	1129	.32
int_2 (entertainment x high congruity)	0.0045	5.1103	1	1129	.02
Both	0.0052	2.985	2	1129	.05

The 'Both' row in Table 6.43 provides a test of the null hypothesis that congruity does not moderate the effect of entertaining content presence on creating SMEB. The null hypothesis is not supported, $F(2, 1129) = 2.985, p = 0.05$. In other words, the regression slope quantifying creating behaviour as a function of entertaining content depends on

congruity.

In order to visualise the moderation effect, the plot option within the PROCESS code generates a table (Table 6.44) of values of the moderator. The table contains estimates of creating behaviour in each of the three groups of entertaining content. The three groups are generated by PROCESS and defined as the sample mean (1.43) as well as a standard deviation below (0.74) and a standard deviation (2.13) above the mean, shown in the first column of Table 6.44.

Table 6.44 PROCESS Data for Visualising Conditional Effect of Entertaining Content on Creating Behaviour

Entertaining	Congruity - High	Congruity - Low	Contributing (Likes)
0.74	0.00	0.00	1.14
1.43	0.00	0.00	1.10
2.13	0.00	0.00	1.05
0.74	0.00	1.00	1.04
1.43	0.00	1.00	1.10
2.13	0.00	1.00	1.16
0.74	1.00	0.00	0.96
1.43	1.00	0.00	1.16
2.13	1.00	0.00	1.36
0.74	1.00	1.00	0.86
1.43	1.00	1.00	1.17
2.13	1.00	1.00	1.48

Given that the evidence suggests the relationship between entertaining content and creating behaviour varies as a function of congruity, the next step is to probe the interaction by estimating the conditional effect of informational content in each of the three groups. In this model, the conditional effect of X (entertaining content) on Y (creating behaviour) depends on M (congruity) as shown in Table 6.45.

Table 6.45 Conditional Effect of Entertaining Content on Creating Behaviour at Values of the Moderator

Congruity High	Congruity Low	Effect	se	t	p	LLCI	ULCI
0.00	0.00	-0.07	0.13	-0.50	0.62	-0.32	0.19
0.00	1.00	0.08	0.07	1.13	0.26	-0.06	0.23
1.00	0.00	0.29	0.09	3.33	0.00	0.12	0.46

In Table 6.45, the first row corresponds to high congruity (0) and low congruity (0) which therefore acts as the medium congruity moderator group.

The results indicate that the conditional effect of entertaining content on creating behaviour is 0.29 with a standard error of 0.09 for high congruity posts. This is statistically different from zero, $t = 3.33$, $p < 0.05$. This is the slope of the line for high congruity in Figure 6.3.

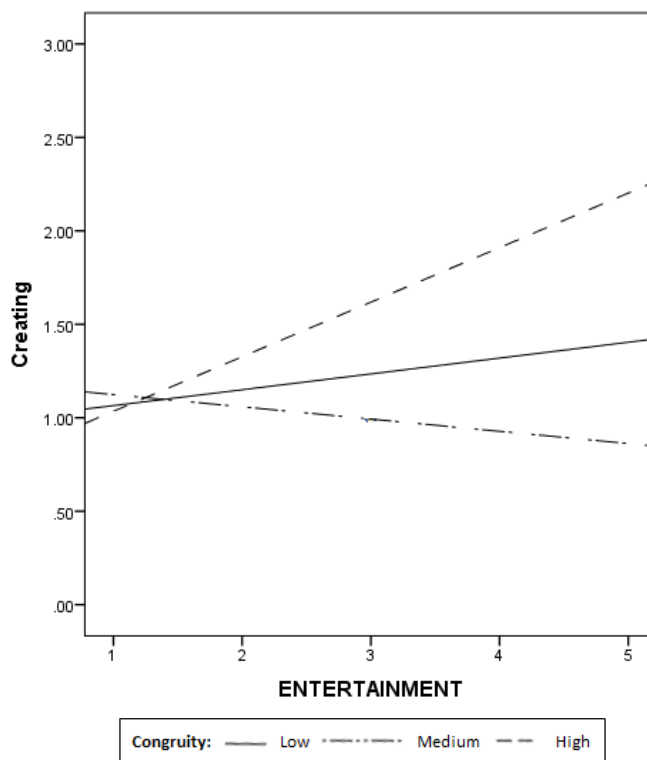
Figure 6.3 Visual Representation of the Moderation of the Effect of Entertaining Content on Creating Behaviour by Congruity.

Figure 6.3 demonstrates that the slope of the line is the most positive for high congruity (effect = 0.29, $p = <0.05$). The finding indicates that the relationship between entertaining content and creating behaviour is positively moderated by congruity. Therefore, posts with entertaining content that are related to the brand or specific product (high congruity) have a greater effect on creating behaviour. As more entertaining content is presented (up to 5 elements) the effect on creating behaviour is significantly increased for posts which are highly congruent to the focal brand. However, when the post was medium congruity (i.e. related to the product category in general) there is a negative effect on creating behaviour as the amount of entertaining content within the post increases towards 5 elements.

Congruity moderation summary

Congruity was found to moderate the relationship between informational content and contributing behaviour in the form of likes, and the relationship between entertaining content and creating behaviour. There were no statistically significant results to indicate that congruity moderates the relationships between informational and entertaining content and other SMEBs. Further, there were no statistically significant results to indicate that congruity moderates the relationships between relational and remunerative content and any of the SMEB types.

The relationship between informational content and contributing behaviour in the form of likes was positively moderated by congruity. The results suggest that posts with informational content that are related to the category (medium congruity) have a greater effect on contributing behaviour in the form of likes, compared to posts with informational content that are not related to the category, product or brand (low congruity). The relationship between entertaining content and creating behaviour was

also positively moderated by congruity. The results suggested that posts with entertaining content that are related to the brand or product (high congruity) have a greater effect on creating SMEB than those with medium or low congruity.

H7: The strength of the relationship between social media content and social media engagement behaviour is inversely related to congruity is therefore partially supported. The relationship between informational content and contributing behaviour in the form of likes, and the relationship between entertaining content and creating behaviour were moderated by congruity.

6.4.4 Community Size

The final moderation effect that was tested on the relationships between social media content and SMEB was community size. This study included community size as a moderating variable, measured by the number of 'fans' on the brand page. Community size was categorised as small (less than 1,500 fans), medium (1500-10,000 fans) and large (over 10,000 fans).

Community size has been found to negatively impact the level of interactions between individuals (Simmel, 1950). Participation in smaller communities results in stronger interpersonal relationship and therefore a greater intention for engagement (Dholakia et al., 2004). Social media users are therefore likely to be more connected to a smaller brand community, resulting in a higher level of SMEB. It is proposed that the community size (small, medium and large) moderates the relationships between social media content and SMEB as outlined in hypothesis 8;

H8: The strength of the relationship between social media content and social media engagement behaviour is inversely related to community size.

Using the SPSS code to construct PROCESS Model 2 for a multi-categorical moderating variable (Hayes, 2015), tests of the moderation of the effect of informational, entertaining, remunerative and relational content on SMEB by community size were achieved. Among the tests of moderation, community size was found to moderate three relationships: entertaining content on contributing behaviour (likes), entertaining content on contributing behaviour (shares) and entertaining content on dormant behaviour. The results of these moderation effects are presented in the following sections.

Moderation of the effect of entertaining content on contributing behaviour (likes) by community size

The presence of entertaining content within social media posts was found to be a statistically significant and positive predictor of contributing behaviour in the form of likes (Section 6.2.3, Table 6.10). The odds ratio of 1.71 showed that posts which had entertaining content were 1.7 times more likely to facilitate the occurrence of contributing behaviour (likes), compared to posts with no entertaining content.

PROCESS Model 2 was again applied to test how this relationship is moderated by community size. Table 6.46 shows the test of interaction between community size and contributing behaviour (likes).

Table 6.46 Partial Output From PROCESS Model 2 Examining Moderation of the Effect of Entertaining Content on Contributing Behaviour (Likes) by Community Size

R-square increase due to interactions	R2-chng	F	df1	df2	p
int_1 (entertaining x small)	0.00	2.38	1.00	1129.00	0.12
int_2 (entertaining x large)	0.00	2.32	1.00	1129.00	0.13
Both	0.00	2.83	2.00	1129.00	0.05

The “Both” line in Table 6.46 provides a test of the null hypothesis that community size does not moderate the effect of entertaining content on contributing behaviour (likes).

The null hypothesis can be rejected, $F(2, 1129) = 2.83, p = 0.05$. In other words, the regression slope quantifying contributing behaviour (likes) as a function of entertaining content depends on community size. This means that community size significantly moderates the relationship between entertaining content and contributing behaviour (likes).

In order to visualise the moderation effect, the plot option within the PROCESS code generates a table (Table 6.47) of values of the moderator (D_1 small community size and D_2 large community size), focal predictor (X , entertaining content) and estimated values of Y (contributing behaviour, likes). The table contains estimates of contributing behaviour in the form of likes at three groups of entertaining content. The three groups are generated by PROCESS and defined as the sample mean (1.43) as well as a standard deviation below (0.74) and a standard deviation (2.13) above the mean, shown in the first column of Table 6.47.

Table 6.47 PROCESS Data for Visualising Conditional Effect of Entertaining Content on Contributing Behaviour (Likes)

Entertainment	Large	Small	Contributing (shares)
0.74	0.00	0.00	2.02
1.43	0.00	0.00	2.10
2.13	0.00	0.00	2.17
0.74	0.00	1.00	1.81
1.43	0.00	1.00	1.74
2.13	0.00	1.00	1.68
0.74	1.00	0.00	2.15
1.43	1.00	0.00	2.33
2.13	1.00	0.00	2.52
0.74	1.00	1.00	1.93
1.43	1.00	1.00	1.98
2.13	1.00	1.00	2.03

Given that the evidence suggests the relationship between entertaining content and contributing behaviour (likes) varies as a function of community size, the next step is to probe the interaction by estimating the conditional effect of entertaining content in each

of the three groups. In this model, the conditional effect of X (entertaining content) on Y (contributing behaviour, likes) depends on M (community size) as shown in Table 6.48.

Table 6.48 Conditional Effect of Entertaining Content on Contributing Behaviour (Likes) at Values of the Moderator

Large	Small	Effect	se	t	p	LLCI	ULCI
0.00	0.00	0.11	0.05	2.23	0.03	0.01	0.20
0.00	1.00	-0.09	0.12	-0.78	0.44	-0.33	0.14
1.00	0.00	0.26	0.09	2.85	0.00	0.08	0.45

In Table 6.48, the first line corresponds to Large=0 and Small=0, which therefore acts as the medium community size moderator group. This output indicates that the conditional effect of entertaining content on contributing behaviour (likes) is 0.11 with a standard error of 0.05. This is statistically different from zero, $t = 2.23$, $p < 0.05$, or between 0.01 and 0.20 with 95% confidence. Thus, it can be reported that two medium community size posts which differ by one unit in entertaining content level are estimated to differ by 0.11 units in contributing (likes). This is the slope of the line for 'Medium' in Figure 6.4. The remaining conditional effects are presented in Table 6.48 and correspond to the slopes of the lines for their respective groups in Figure 6.4.

As can be seen in the output in Table 6.48, all conditional effects are positive. However only the effect for medium (row 1), and large (row 3) are significantly different from zero. The conditional effects are not equal, as implied by the claim that community size moderates the effect of entertaining content on contributing behaviour (likes). The effects can be visualised by the varying slopes of the lines in Figure 6.4.

Figure 6.4 Visual Representation of the Moderation of the Effect of Entertaining Content on Contributing Behaviour (Likes) by Community Size.

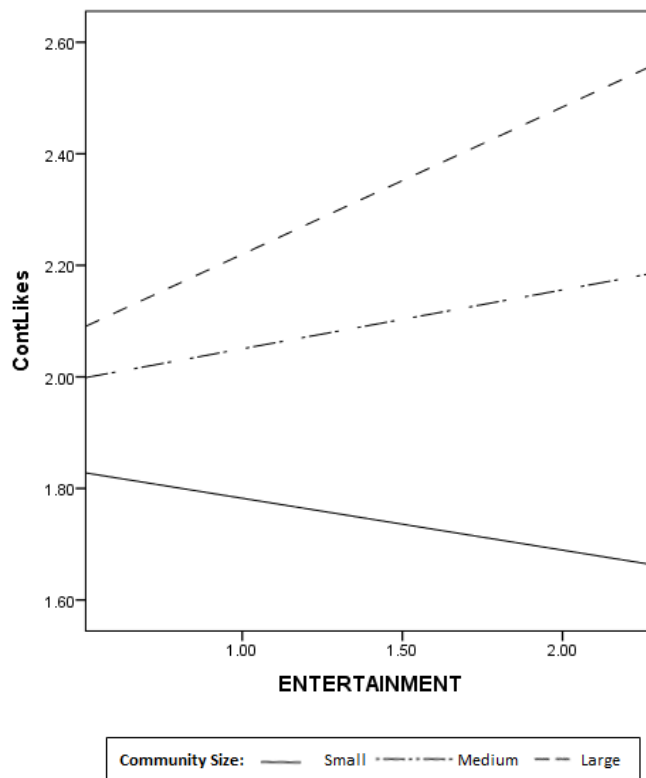


Figure 6.4 demonstrates that the slope of the line is greater for large community sizes (effect = 0.26, $p = <0.05$) than that of medium community sizes (effect = 0.11, $p = <0.05$). As the amount of entertaining content within the post increases, the number of likes on the post also increases. This effect is greatest for large community sizes, but is also positive and statistically significant for medium community sizes.

This finding indicates that the provision of higher levels of entertaining content is not an effective strategy for brands with smaller community sizes (less than 1,500 fans) in order to facilitate an increase in the number of likes received on the post.

Comparatively, when the community size has more than 1,500 fans, providing higher levels of entertaining content is a successful social media strategy in order to facilitate the occurrence of contributing behaviour in the form of likes.

Moderation of the effect of entertaining content on contributing behaviour (shares) by community size

Using the SPSS code to construct PROCESS Model 2 for the multi-categorical variable: community size (Hayes, 2015), a test of the moderation of the effect of entertaining content level on contributing behaviour in the form of shares by richness was achieved. This allows interpretation of how the effect of entertaining content on contributing (shares) behaviour is altered depending on the community size (small, medium or large). The levels of entertaining content (1, 2 and 3) used as the independent variable in this model is derived from the results in Section 6.2.4.

Table 6.49 shows the test of interaction between community size and contributing behaviour in the form of likes.

Table 6.49 Partial Output From PROCESS Model 2 Examining Moderation of the Effect of Entertaining Content on Contributing Behaviour (Shares) by Community Size.

R-square increase due to interactions	R2-chng	F	df1	df2	p
int_1 (entertaining x small)	0.01	5.85	1.00	1109.00	0.02
int_2 (entertaining x large)	0.00	3.65	1.00	1109.00	0.06
Both	0.01	5.76	2.00	1109.00	0.00

The “Both” line in Table 6.49 provides a test of the null hypothesis that community size does not moderate the effect of entertaining content on contributing behaviour in the form of shares. The null hypothesis is not supported, $F(2, 1109) = 5.76, p = < 0.05$. In other words, the regression slope quantifying contributing behaviour (shares) as a function of entertaining content depends on community size.

In order to visualise the moderation effect, the plot option within the PROCESS code generates a table (Table 6.50) of values of the moderator (D_1 small community size and D_2 large community size), focal predictor (X , entertaining content) and estimated values

of Y (contributing behaviour, shares).

Table 6.50 PROCESS Data for Visualising Conditional Effect of Informational Content on Contributing Behaviour (Shares)

Entertaining	Community size (large)	Community size (small)	Contributing (shares)
0.79	0.00	0.00	0.76
1.39	0.00	0.00	0.86
1.98	0.00	0.00	0.96
0.79	0.00	1.00	0.73
1.39	0.00	1.00	0.61
1.98	0.00	1.00	0.49
0.79	1.00	0.00	0.93
1.39	1.00	0.00	1.21
1.98	1.00	0.00	1.48
0.79	1.00	1.00	0.90
1.39	1.00	1.00	0.96
1.98	1.00	1.00	1.01

Given that the evidence suggests the relationship between entertaining content and contributing behaviour (shares) varies as a function of community size, the next step is to probe the interaction by estimating the conditional effect of entertaining as shown in Table 6.51.

Table 6.51 Conditional Effect of Entertaining Content on Contributing Behaviour (Shares) At Values of the Moderator

Large	Small	Effect	se	t	p	LLCI	ULCI
0.00	0.00	0.17	0.07	2.56	0.01	0.04	0.29
0.00	1.00	-0.20	0.14	-1.47	0.14	-0.48	0.07
1.00	0.00	0.46	0.14	3.29	0.00	0.19	0.74

The output in the first row of Table 6.51 indicates that the conditional effect of entertaining content on contributing behaviour (shares) is .17 with a standard error of 0.07. This is statistically different from zero, $t = 2.56$ $p = <0.05$, or between 0.04 and 0.29 with 95% confidence. Therefore, it can be reported that two medium community size posts which differ by one unit in entertaining content level are estimated to differ by 0.17 units in contributing (shares). This is the slope of the line for 'Medium' in

Figure 6.5.

The remaining conditional effects are presented in Table 6.51 and correspond to the slopes of the lines for their respective groups in Figure 6.5. As can be seen in the output in Table 6.51, the conditional effects for medium and large community sizes are positive and significantly different from zero. The conditional effects are not equal, as implied by the claim that community size moderates the effect of entertaining content on contributing behaviour (shares). The effects can be visualised by the varying slopes of the lines in Figure 6.5.

Figure 6.5 A Visual Representation of the Moderation of the Effect of Entertaining Content on Contributing Behaviour (Shares) by Community Size.

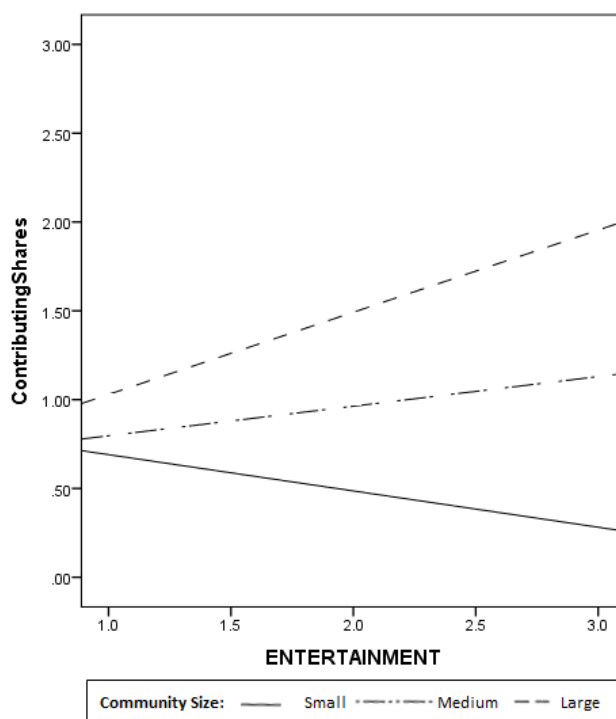


Figure 6.5 demonstrates that the slope of the line is positive and greater for large community sizes (effect = 0.46, $p < 0.05$) is greater than that of medium community sizes (effect = 0.17, $p < 0.05$). The slope of the line is negative for small community sizes. Therefore, posts with entertaining content that are in a large community have a

greater effect on contributing behaviour in the form of shares, compared to posts with entertaining in a medium sized community. This finding is consistent with the results depicted in Figure 6.4 which showed that an increase in entertaining content was detrimental to the number of likes received on a post when the community size was small. These findings indicate the importance of building larger community sizes (more than 1,500 fans) in order to ensure that the provision of highly entertaining content will result in the content being shared and liked by users. Small community sizes (less than 1,500 fans) do not appear to be as successful in their provision of entertaining content to users, which reduces the number of shares and likes made on the content.

Moderation of the effect of entertaining content on dormant behaviour by community size

Table 6.52 shows the test of interaction between community size and contributing behaviour in the form of likes. Table 6.52 shows the test of interaction between community size and dormant behaviour.

Table 6.52 Partial Output from PROCESS Model 2 Examining Moderation of the Effect of Entertaining Content on Dormant Behaviour by Community Size

R-square increase due to interactions	R2-chng	F	df1	df2	p
int_1 (entertainment x small)	0.01	7.39	1.00	1129.00	0.01
int_2 (entertainment x large)	0.00	0.03	1.00	1129.00	0.86
Both	0.01	3.90	2.00	1129.00	0.02

The “Both” line in Table 6.52 provides a test of the null hypothesis that community size does not moderate the effect of entertaining content dormant SMEB. The null hypothesis is not supported, $F(2, 1129) = 3.9, p = < 0.05$. The regression slope quantifying dormant behaviour as a function of entertaining content depends on community size.

In order to visualise the moderation effect, the plot option within the PROCESS code

generates a table (Table 6.53) of values of the moderator (D_1 small community size and D_2 large community size), focal predictor (X , entertaining content) and estimated values of Y (dormant behaviour).

Table 6.53 PROCESS Data for Visualising Conditional Effect of Entertaining Content on Dormant Behaviour

Entertaining Content	Large	Small	Dormant behaviour
0.74	0.00	0.00	0.89
1.43	0.00	0.00	0.89
2.13	0.00	0.00	0.88
0.74	0.00	1.00	0.87
1.43	0.00	1.00	0.89
2.13	0.00	1.00	0.90
0.74	1.00	0.00	0.91
1.43	1.00	0.00	0.91
2.13	1.00	0.00	0.90
0.74	1.00	1.00	0.89
1.43	1.00	1.00	0.91
2.13	1.00	1.00	0.92

Given that the evidence suggests the relationship between entertaining content and dormant behaviour varies as a function of community size, the next step is to probe the interaction by estimating the conditional effect of entertaining as shown in Table 6.54.

Table 6.54 Conditional Effect of Entertaining Content on Dormant Behaviour at Values of The Moderator

Large	Small	Effect	se	t	p	LLCI	ULCI
0.00	0.00	-0.01	0.00	-1.84	0.07	-0.01	0.00
0.00	1.00	0.02	0.01	2.20	0.03	0.00	0.04
1.00	0.00	-0.01	0.01	-1.13	0.26	-0.02	0.01

In the Table 6.54, the first line corresponds to Large=0 and Small=0, which therefore acts as the 'Medium' community size moderator group. This output indicated that the conditional effect of entertaining content on dormant behaviour is -0.01 with a standard error of 0.00. This is statistically different from zero, $t = -1.84$, $p < 0.05$, or between -0.01 and 0.00 with 95% confidence. Therefore, it can be reported that two medium

community size posts which differ by one unit in entertaining content are estimated to differ by -0.01 units in dormant behaviour. This is the slope of the line for 'Medium' in Figure 6.6. The remaining conditional effects are presented in Table 6.54 and correspond to the slopes of the lines for their respective groups in Figure 6.6. The conditional effect for medium community size is negative, while the conditional effect for small community size is positive and significantly different from zero. The conditional effect for large community size (row 3) is not statistically significant, but slopes in a negative direction as can be seen in Figure 6.6. The conditional effects for small and medium community size are not equal, as implied by the claim that community size moderates the effect of entertaining content on dormant SMEB. The effects can be visualised by the varying slopes of the lines in Figure 6.6.

Figure 6.6 A Visual Representation of the Moderation of the Effect of Entertaining Content on Dormant Behaviour by Community Size.

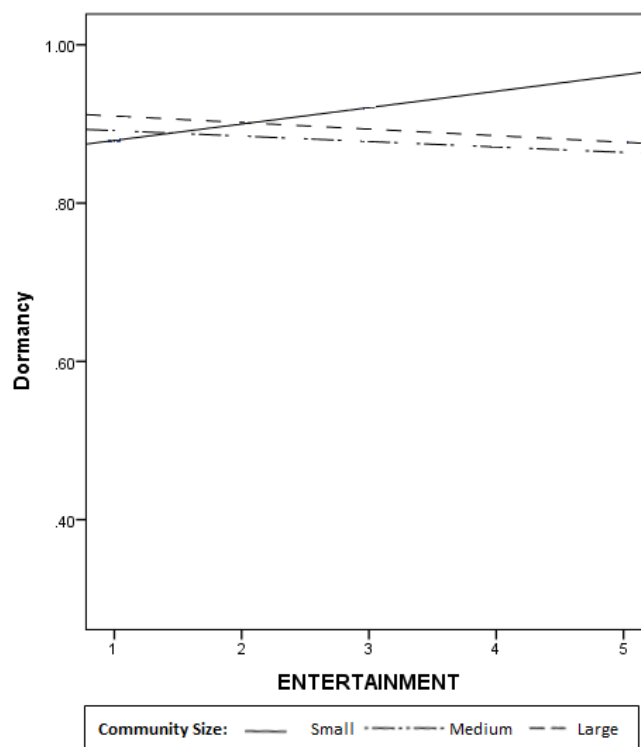


Figure 6.6 demonstrates that the slope of the line is positive for the moderator group 'small community size'. The positive slope indicates that for small community sizes, as the level of entertaining content within a post increases towards 5 elements, the percentage of dormant behaviour that occurs among users' increases. Comparatively, the slope of the line for the moderator group 'medium community size' is negative (effect = -0.01 $p = <0.05$). This indicates that in a medium community size, for every unit increase in entertaining content level, the level of dormant behaviour exhibited among users is reduced.

This finding demonstrates a clear advantage for brands with a large following on social media, indicating that when the community size is higher (in this study, 10,000 fans or greater), entertaining content reduces dormant SMEB. Comparatively, for brands with a small social media following, entertaining social media content appears to increase the occurrence of dormant SMEB.

Community size moderation summary

Community size was found to moderate the relationships between entertaining content and contributing behaviour (likes), contributing behaviour (shares) and dormant behaviour. There were no statistically significant results to indicate that community size moderates the relationships between informational, relational and remunerative content and SMEB.

The relationship between entertaining content and contributing behaviour in the form of likes was moderated by community size. The results suggest that entertaining posts within a large community size have a greater effect on the number of likes compared to the same posts in a medium or small community size. Similarly, the moderation of the

effect of entertaining content on contributing behaviour (shares) by community size indicated a greater effect for large community sizes.

The moderation of the effect of entertaining content on dormant behaviour demonstrated a benefit for large and medium community sizes, with the presence of entertaining content within a post decreasing the occurrence of dormant SMEB. Comparatively, for small community sizes, entertaining content within a post was associated with an increase in dormant behaviour. These results demonstrate a clear benefit for large and medium community sizes with regards to posting entertaining content. It appears that in larger community sizes, the use of entertaining content has a greater effect on SMEBs including an increase in post likes and shares, and a decrease in dormancy.

H8: The strength of the relationship between social media content and social media engagement behaviour is inversely related to community size was not supported.

Instead, the relationship between social media content and SMEB was positively moderated by community size.

6.4.5 Moderation Effect Summary

In this section the moderation of the effect of social media content on SMEB by media richness, congruity and community size was presented. Hayes (2015) PROCESS Model 2 modification technique was used in order to test the effect of multi-categorical moderating variables.

The media richness of a post was found to positively moderate the effect of informational content on contributing behaviour in the form of shares. This finding indicates that when presenting informational content, the use of a highly rich delivery

method (such as a video) is preferable in order to stimulate sharing of the content.

The congruity of a post was found to moderate the effect of informational content on contributing behaviour in the form of likes. The finding indicated that when presenting informational content, the use of moderately congruent information (related to the category) is preferable in order to facilitate contributing behaviour in the form of likes. Congruity positively moderated the relationship between entertaining content and creating behaviour, with highly congruent posts (related to the specific product/brand) having the greatest effect on creating behaviour.

Community size was the final moderating variable tested in this section. Community size was found to positively moderate the relationship between entertaining content and contributing behaviour (likes and shares) and creating behaviour. The positive moderation indicates that within larger community sizes, the effect of entertaining content on contributing behaviour is greater, and the occurrence of dormant behaviour is reduced.

6.5 Summary of Results

Table 6.55 provides a summary of the results concerning each hypothesis of the study.

Table 6.55 Summary of Hypotheses and Results

H#	Hypothesis	Supported/Not supported
H1	The presence of informational content facilitates passive, positively-valenced social media engagement behaviour.	Supported
H1a	High levels of informational content weaken the relationship with positively-valenced social media engagement behaviours,	Partially supported
H2	The presence of entertaining content facilitates active, positively-valenced social media engagement behaviour.	Partially supported
H2a	High levels of entertaining content weaken the relationship with positively-valenced social media engagement behaviours,	Partially supported
H3	The presence of remunerative content facilitates passive, positively-valenced social media engagement behaviour.	Not supported
H3a	High levels of remunerative content weaken the relationship with positively-valenced social media engagement behaviours.	Partially supported
H4	The presence of relational content facilitates active, positively-valenced social media engagement behaviour.	Supported
H4a	High levels of relational content weaken the relationship with positively-valenced social media engagement behaviours.	Supported
H5a	The simultaneous presence of informational and entertaining content facilitates negatively-valenced social media engagement behaviours.	Not supported
H5b	The simultaneous presence of informational and relational content facilitates negatively-valenced social media engagement behaviours.	Not supported
H5c	The simultaneous presence of informational and remunerative content facilitates positively-valenced social media engagement behaviours.	Not supported
H5d	The simultaneous presence of entertaining and remunerative content facilitates negatively-valenced social media engagement behaviours.	Not supported
H5e	The simultaneous presence of entertaining and relational content facilitates positively-valenced social media engagement behaviours.	Partially supported
H5f	The simultaneous presence of remunerative and relational content facilitates negatively-valenced social media engagement behaviours.	Not supported
H6	The strength of the relationship between social media content and social media engagement behaviour is directly related to media richness.	Partially supported
H7	The strength of the relationship between social media content and social media engagement behaviour is inversely related to congruity.	Partially supported
H8	The strength of the relationship between social media content and social media engagement behaviour is inversely related to community size.	Not supported

6.6 Chapter Summary

This chapter presented the results of the statistical analysis performed in order to test the hypotheses developed in Chapter 4. Hypothesis 1, stating that the presence of informational content facilitates passive, positively-valenced SMEB was supported. There was partial support found for Hypothesis 1a which suggested that high levels of informational content weaken the relationship with positively-valenced engagement behaviours. Hypothesis 2 which suggested that the presence of entertaining content facilitates active, positively-valenced SMEB was partially supported. There was partial support for Hypothesis 2a which suggested that high levels of entertaining content weaken the relationship with positively-valenced engagement behaviours. Hypothesis 3, which predicted that the presence of remunerative content would facilitate passive, positively-valenced engagement behaviour, was not supported. Instead, the presence of remunerative content facilitated active, positively-valenced SMEB. H3a was partially supported, suggesting that high levels of remunerative content weaken the relationship with positively-valenced engagement behaviours. Hypothesis 4, which suggested that the presence of relational content facilitates active, positively-valenced SMEB, was supported. Hypothesis 4a was also supported, indicating that high levels of relational content weaken the relationship with positively-valenced SMEB. There was partial support found for one of the interaction effects, Hypothesis 5e, which stated that the simultaneous presence of entertaining and relational content facilitates positively-valenced engagement behaviours. Finally, partial support was found for the moderation hypotheses regarding media richness (Hypothesis 6) and congruity (Hypothesis 7). In the next chapter, these results are discussed in detail with ensuing theoretical and practical implications.

CHAPTER 7. Discussion and Conclusion

7.1 Introduction

This chapter addresses the main contributions of this thesis. These contributions include: the development of the SMEB construct, the establishment of an empirical relationship between social media content and social media engagement behaviour, the use of a novel approach to social media data analytics, and the application of the UGT theoretical perspective to online engagement. There are some limitations to the research which are addressed within this chapter. These limitations lead to valuable areas for further research, which are outlined. The important managerial implications ensuing from the results of this thesis, such as the point at which information overload impacts on the processing of social media, the interaction effects of conflicting content types and the approach to understanding social media data are discussed. This chapter closes with the concluding thoughts.

7.2 Contributions of the Research

7.2.1 Development of the SMEB Construct

This thesis developed and tested a new construct through which the engagement behaviour of users with social media content could be conceptualised, defined and measured. The conceptual development of this construct was explained in Chapter 3 and empirically tested in Chapter 6.

Proponents of customer engagement have commonly argued for a three dimensional construct, with cognitive, affective and behavioural components (e.g. Brodie et al., 2011). This thesis focused exclusively on furthering the understanding of one dimension of engagement; behavioural engagement. Customer engagement behaviour has been defined in previous literature as “customer’s behavioural manifestations that have a

brand or firm focus, beyond purchase” (van Doorn et al., 2010 p.254). Despite this definition and preliminary investigation into the nature of engagement behaviours (E.g. Jaakkola & Alexander, 2014), there still remains much to understand about these behavioural manifestations in different contexts. Further, with the growing prevalence of social media, there has been an emergent focus from both academics and practitioners on the concept of engagement within social media platforms (Brodie et al., 2013). Scholars have agreed that social media platforms provide users with an interactive avenue to create value and engage with the firm (Brodie et al., 2013; Gummerus et al., 2012). However, prior to this research, there was little theoretical and empirical evidence to explicate the specific user engagement behaviours that may occur in a social media setting. Through the development of the SMEB construct, this thesis identified exactly *how* social media engagement behaviour is manifested. In doing so, six specific and discrete engagement behaviours were identified and defined. These social media engagement behaviours contribute to engagement literature by incorporating the important facets of engagement behaviour including valence (Hollebeek & Chen, 2014; van Doorn et al., 2010) and engagement intensity (Malthouse et al., 2013; Muntinga et al., 2011).

The development of the SMEB construct and corresponding six behaviours enhances the understanding of engagement behaviours by theoretically and empirically demonstrating the occurrence of engagement, which varies by intensity. Previous scholars such as Muntinga et al., (2011) and Malthouse et al., (2013) have theorised that engagement within social media may exist in low and high levels of intensity; however this notion had not been empirically developed and tested. Through the development of the SMEB construct within this research, six different types of engagement were

defined and measured. It is argued that simple categorisations of low and high engagement (e.g. Malthouse et al., 2013) or levels of engagement (e.g. Muntinga et al., 2011) are limited in their ability to fully understand the nature of engagement behaviour, particularly within social media platforms. The SMEB construct incorporates lower intensity and more passive engagement behaviours, such as dormancy and consuming. Additionally, it recognises more active engagement behaviours with a moderate intensity; detaching and contributing. Finally, the construct demonstrates the occurrence of highly active engagement behaviour such as creation and destruction, which represents behavioural engagement that impacts on others in the community as well as on interaction with the brand.

In addition to enhancing the understanding of engagement behaviour through the conceptualisation and measurement of various engagement intensity levels, the SMEB construct provides an important contribution through its integration of both positively- and negatively-valenced manifestations of engagement. A majority of the research conducted on the engagement concept has focussed on the specific positively-valenced expressions of engagement behaviour (Hollebeek, 2011b; Sprott, Czellar, & Spangenberg, 2009; Vivek et al., 2012). In the social media setting, scholars have also theorised that engagement behaviours reflect positive user experiences (Muntinga et al., 2011). This thesis contributes to the literature concerning negatively-valenced engagement by empirically demonstrating that engaged users may experience negatively-valenced engagement in addition to positively-valenced engagement behaviour, both at various levels of intensity. Negatively-valenced engagement behaviours of detaching and destructing were conceptualised and examined within this thesis.

This development of the SMEB construct provides a further contribution through its focussed level of investigation regarding the singular touch point of social media content. Recent focus on the engagement construct in marketing has centred on customer engagement with a brand (Hollebeek, 2011b; van Doorn et al., 2010). Customers engage with a firm or brand through multiple touch-points and service encounters (Vivek, Beatty, Dalela, & Morgan, 2014). Examples of this engagement include interactions with staff, use of products, physical retail spaces, social media pages and other forms of communication (Vivek et al., 2014). Authors have recognised that there are various focal objects of customer engagement including product or service offerings (Brodie et al., 2011), activities and events (Vivek et al., 2012) and media (Calder et al., 2009). Together these interactions constitute the brand experience of the customer. Engagement is interactive and therefore context-dependent and can only be properly understood through an examination of each of these service experiences (Brodie et al., 2011; Calder et al., 2009; Gummerus et al., 2012). However, there is little research that examines customer engagement at this focused level. The examination of social media engagement provided within this thesis focuses attention on a singular touch-point in the service experience. Consistent with calls from previous researchers (Brodie et al., 2011; Vivek et al., 2012), this in-depth examination within a context-specific environment (e.g. social media) provides greater insight into the behavioural manifestations of engagement.

7.2.2 Application of the UGT Perspective to Engagement

This thesis contributes to the body of literature concerning antecedents to engagement by empirically demonstrating how social media content may act as a driver of user decisions to engage, behaviourally, with social media content. This confirms the notion

of UGT which suggests that users are motivated by specific needs to actively select and determine the content which they engage with in order to satisfy these needs. UGT was shown to be an appropriate theoretical lens through which engagement can be explored further, as it offers an insight into why and how individuals actively seek out and use specific media to satisfy specific needs (Katz & Foulkes, 1962). Through the adoption of the UGT perspective, this thesis explained how users are free to interact and engage with specific types of content, as determined by their motivations, needs and gratifications sought. UGT provides this research with an important theoretical explanation of why and how individual users interact and engage with various forms of social media content.

This research is one of only a handful of studies to apply UGT in a social media setting (Chen, 2011; Ham, Lee, & Lee, 2014; Whiting & Williams, 2013). While UGT has been applied in the context of television and electronic bulletins (Leung & Wei, 2000) the rapid growth of the internet and social media platforms has created mediums in which a higher level of interactivity from users is required (Ko et al., 2005; Ruggiero, 2000). This research demonstrates the importance of UGT and how this theory can be evolved to consider prevalent emerging mediums such as social networking sites.

The constructs based on the motivations inherent in the UGT perspective, including the need for social interaction, the need for entertainment, information seeking and sharing needs, and the desire for reward or remuneration were adopted in this thesis in order to develop the four categories of social media content positioned as an antecedent to SMEB as depicted in the conceptual model developed within Chapter 4. Social media content was categorised into four main groups, based on its level of *information* (Cvijikj & Michahelles, 2013; De Vries et al., 2012), *entertainment* (De Vries et al., 2012;

Taylor et al., 2011), *remunerative* (Cvijikj & Michahelles, 2013; Lee et al., 2013) and *relational* (Muntinga et al., 2011) content. Through empirical testing of the conceptual model, it was shown that the delivery of these varying forms of content does effect customer motives for social media use, hence resulting in various expressions of social media engagement behaviours.

7.2.3 Establishment of the Relationship between Social Media Content and Social Media Engagement Behaviour

This thesis demonstrates an empirical relationship between social media content categories and SMEB. An association between content and user actions such as ‘liking’ and ‘commenting’ is discussed in previous literature, with conflicting and limited empirical support (Cvijikj & Michahelles, 2013; De Vries et al., 2012; Lee et al., 2013). In social media, it has been suggested that a brand’s overt goal is to attract an audience by providing value, or gratification, through its content (Malthouse et al., 2013). This thesis demonstrates an empirical relationship between social media content presence, levels, and interactions, and SMEBs, demonstrating that content should be designed in a way which encourages individual consumers to exhibit a greater level of engagement (Malthouse et al., 2013). The determination of this link between content and engagement provides fruitful avenues for further research, discussed later in this chapter.

This thesis examined the role of each content type including analysis of the effect of the presence of the content, the level of the content, interaction of the content with other content types, and the moderating variables which affected the resultant expressions of SMEB. The presence of informational, entertaining, remunerative and relational content within social media posts was found to influence the occurrence of positively-valenced,

neutral and negatively-valenced SMEBs. These findings were dependent on the level of social media content present, demonstrating an information overload effect. Further, concepts of media richness, congruity of the social media content and the community size in which the content were posted had significant effects on the relationships between social media content and SMEB.

The presence of informational content within social media posts was found to predict the occurrence of positively-valenced SMEBs. This finding was consistent with previous literature which has stated that internet users increase their usage patterns as a result of content gratifications such as information seeking, knowledge and learning (Stafford et al., 2004). Similarly, the presence of entertaining content within a social media post significantly predicted the occurrence of positively-valenced SMEBs occurring. This finding is consistent with Cvijikj and Michahelles (2013) who demonstrated that entertaining content was a significant factor in increasing the number of likes, comments and shares made on social media posts. A significant and positive relationship between remunerative content and active, positively-valenced SMEBs was also identified. The presence of relational content had a significant effect on all positively-valenced SMEBs. However the likelihood of passive, positively-valenced SMEB in the form of consuming was the greatest. This denotes a passive participation among users, which contrasts with Park et al. (2009) who found that socialising motives predict active participation among users. Similarly, scholars have suggested that the gratification of social and interaction motives causes users to create online content. The findings in this thesis show that individuals are far more likely to passively and individually consume this content, rather than create new content.

These results were explored in greater detail through assessing the specific amount of content within the social media post. Supported by the notion of information overload, this thesis enhances the understanding of the relationship between social media content and SMEB. The findings demonstrate that for each type of content, the positive relationship with the prediction SMEB occurring only exists at lower levels of the content. At high levels of social media content, regardless of its informational, entertaining, relational or remunerative nature, there were no significant effects on the occurrence of SMEB. This is a very important finding, empirically demonstrating that the specific *amount* of content delivered to users through social media posts is an essential consideration, and has a significant impact on the resultant engagement behaviour of users. Social media users do experience information overload, as has been suggested for users of traditional media audiences (Eppler & Mengis, 2004; Hiltz & Turoff, 1985).

This thesis also showed the importance of the concepts of media richness, congruity of the social media content, and community size in determining the relationship between social media content and SMEB. A high level of media richness (social media content delivered in the form of a video) was found to be beneficial to the relationship between informational social media content and contributing SMEB. As the level of informational content delivered to users increased, high media richness levels were preferable in order to facilitate an increase in users contributing behaviour. Media richness did not have a significant effect on the relationships between the other three types of social media content; entertaining, remunerative and relational, and SMEB. The congruity of a post was found to moderate the effect of informational content on contributing behaviour in the form of likes. The finding indicated that when presenting

informational content, the use of moderately congruent information (related to the category) is preferable in order to facilitate contributing behaviour in the form of likes. Congruity positively moderated the relationship between entertaining content and creating behaviour, with highly congruent posts (related to the specific product/brand) having the greatest effect on creating behaviour. This finding demonstrates the benefit of providing congruent information, which is contrary to previous research which suggested that incongruent information is more beneficial, leading to greater brand recall (Hastie, 1980), enhanced arousal (Gardner et al., 1985), curiosity and interest (Muehling & Laczniak, 1988), and increased message involvement (Lee, 2000).

Community size was the final moderating variable tested in this section. Community size was found to positively moderate the relationship between entertaining content and contributing behaviour (likes and shares) and creating behaviour. The positive moderation indicates that within larger community sizes, the effect of entertaining content on contributing behaviour is greater, and the occurrence of dormant behaviour is reduced.

7.2.4 Social Media Data Analytics

This thesis adopted a novel approach to data collection and analysis to determine the empirical relationships between social media content and SMEB. This thesis used data from the social media brand pages of twelve Australian wine brands. This allowed collection of actual behavioural data of 54,069 social media users, who were current ‘fans’ of the twelve wine brand pages. This rich source of data provided valuable insights into the social media engagement behaviours demonstrated by actual Facebook users, as opposed to self-reported data.

This thesis used two tools, *Facebook Insights* and *NCapture* to extract the behavioural data from the twelve Facebook pages. The use of these tools shows how this data can empirically enhance the understanding of actual SMEB actions. The metrics available through these tools provide a rich and comprehensive insight into social media engagement behaviour of users, compared to the limited measures used in previous literature, such as the mere number of likes, shares of comments used as engagement indicators by De Vries et al. (2012) and Cvijikj and Michahelles (2013).

While there is a vast quantity of social data available, the consequent challenge is to be able to analyse the large volumes of user-generated content in order to gain meaningful insights into the behaviour, opinions, sentiments, issues and trends among users (Leskovec, 2011; Stieglitz & Dang-Xuan, 2013). This thesis contributes to knowledge regarding the analytics of social media data through the use of three methods; quantitative content analysis (QCA), binary logistic regression and Hayes (2013) process analysis.

QCA is a suitable technique for analysing large quantities of social media data, as it allows for a non-intrusive research method incorporating examination of a wide range of data over an extensive time period (Neuendorf, 2002). QCA within social media allowed inferences to be made about the social media content, including coding and categorisation of all social media content according to the developed types of informational, entertaining, remunerative, and relational content. Additionally, QCA was used to make inferences about the audiences of content, or social media users through the investigation of their relevant expressions of SMEB. This thesis provides a detailed and sequential process for conducting QCA with social media data.

Marketing practitioners and academics are faced with the challenge of engineering content effectively in order to facilitate engagement within social media platforms (Malthouse et al., 2013). This thesis contributes to the understanding of how to categorise, code and measure content through the development of the process for automatically coding the presence of content attributes and elements. The codes and corresponding dictionaries, shown in Chapter 5, enabled dichotomous measurement of social media content categories, indicating the presence or non-presence of key terms, words and phrases. These dictionaries could be used or adapted for future studies which wish to similarly mechanically search for and code key terms within large quantities of text-based content.

7.3 Limitations

The first limitation of this thesis is in regards to the social media content categories determined. Through the process of QCA and application of the UGT perspective, four types of social media content were categorised. The four categories of social media content were derived through the literature review concerning the main gratifications sought by users as per the UGT perspective. There are factors beyond the user gratifications of the need for information, entertainment, remuneration and relational interaction which were not included in this study. Factors such as personal identity (Calder et al., 2009), affection, instrumentality, psychological reassurance, fashion/status, mobility (Leung & Wei, 2000), relaxation, coordination for business, status seeking (Grellhesl & Punyanunt-Carter, 2012), the need to vent negative feelings, personal recognition (Leung, 2013), escape (Leung & Wei, 2000) and sensation seeking (Zuckerman, 1979) have been suggested in UGT and related research, which could be incorporated into further studies predicting user motivations for SMEB. Integration of a

richer collection of user motivations for social media engagement derived through UGT would add value to the theory and further enhance knowledge regarding the individual drivers of social media, and other online engagement behaviours. In order to achieve this, a mixed methods approach to the research design may be required, including a qualitative approach to more comprehensively identify, understand and explicate individual motivations for online engagement.

The second limitation of this thesis concerns the adoption of an exclusively behavioural perspective of engagement. In order to more fully encapsulate the notion of social media engagement, incorporation of the widely accepted dimensions of emotional and cognitive customer engagement (Brodie et al., 2011) is required. Customer engagement has been defined as a multidimensional concept subject to a context- and/or stakeholder-specific expression of relevant cognitive, emotional and/or behavioural dimensions (Brodie et al., 2011). Hence, the application of an exclusively behavioural investigation of social media engagement within this thesis fails to consider users' expressions of relevant cognitive and emotional dimensions of engagement. The extent to which social media content can facilitate users' cognitive and emotional engagement experiences provides a valuable area of further investigation. For example, it was found that only informational and relational content facilitate consuming behaviour. It would be interesting to further investigate whether this consuming behaviour influences the amount of cognitive and affective engagement among users. It remains unknown whether the expressions of SMEB in this thesis would occur simultaneously with users' cognitive and affective aspects of engagement. One may posit that utilitarian content such as informational and remunerative may facilitate cognitive customer engagement, whereas the provision of hedonic content such as entertaining or relational content may

cause users to experience affective engagement. These questions pose interesting areas for future research incorporating the multi-dimensional view of customer engagement.

Thirdly, within the data analysis process of the research, the method adopted did not consider the complex nature and effect of the post content and engagement algorithms that are determined by Facebook. Dependent on the algorithm employed by Facebook, it is possible that certain posts types and post content characteristics are allocated more 'weight' and hence delivered to more users news feeds. For example, it has been speculated that the Facebook news-feed algorithm is designed to ensure that when brands post videos, they are rewarded with enhanced organic reach as opposed to the use of status updates and photos (McGee, 2013). The extent to which social media algorithms determine the content that consumers are exposed to within their news feed or home pages is an important consideration for academic research within the social media space. This research controlled for this effect to an extent, by considering the engagement of users as a percentage of the total users who are exposed to the content (measured as post reach).

It was identified in Chapter 5 that a very small number of destructing behaviour cases were present within the data set. The number of cases in which destructing behaviour occurred was very low at just 8 cases within the total of 2,236 posts. For this reason, the destructing behaviour component of SMEB did not meet the requirements for the dependent variable case size required within binary logistic regression (Harrell, 2013). This finding, along with the low mean scores for detaching behaviour indicates that in the context of this research, the occurrence of negatively-valenced SMEB is less prevalent. As a result, the binary logistic regression results presented in Chapter 6 did not include testing of the effect social media content on destructing SMEB. In a more

controversial product category, it is likely that a greater amount of active, negatively-valenced SMEB in the form of destruction may occur, warranting an interesting area for further investigation.

A final main limitation of this thesis concerns the process adopted for the quantitative content analysis of social media data. Following Neuendorf's (2002) QCA process, the development of the custom dictionaries was conducted by the researcher. Through the development of custom dictionaries applied to word search formulas to identify key characteristics of message content (see Chapter 5, Section 5.5.3), a highly mechanical approach to social media content coding was conducted. This does not take into account nuances within the language used in the social media content. Further, it does not account for the full context and nature in which key words or phrases are used. Human coding was also required for the categorisation of social media content in the form of photographs and images as outlined in Chapter 5, Section 5.5.3. This process is also subject to human error and misattribution of certain photos to incorrect social media content categories.

7.4 Directions for Future Research

7.4.1 User Progression through SMEB

A valuable area for further research concerns the dynamic nature of the levels of engagement behaviour in the SMEB construct. For example, analysis of user progression through, or within the six behaviours is not considered. This could be captured more accurately in future research through a longitudinal research design which would provide a more comprehensive view of the development of SMEBs over time. This research would identify the phases of SMEB through which users move over time. For example, interesting research questions could address whether new members

of social media brand pages exhibit active, positively-valenced SMEB such as creating, before transitioning to a phase of lower intensity SMEB such as consuming or dormancy, comparative to older or existing members. Previous research has theorised that the customer engagement process may vary for existing, compared to new customers of a brand (Bowden, 2009), warranting further empirical investigation.

Examination of these user engagement behaviours across time would allow marketing practitioners and academics to pin-point time periods in which users transition across various intensities or valences of SMEB. This would provide strategic direction for practitioners wanting to encourage consumers to transition from a passive state of engagement to an active state, or from a negatively-valenced expression of engagement to a positively-valenced expression. The extent to which the levels proposed occur in an interactive, cyclical or unpredictable pattern warrants further research.

The notion of user progression through various stages of SMEB has parallels with relationship marketing literature (Grönroos, 2004), particularly with regard to concepts such as customer bonding (Szmigin, Canning, & Reppel, 2005), relationship ending (Duck & Perlman, 1985), and customer exit processes such as relationship termination, withdrawal, dissolution, discontinuation, uncoupling and break-up (Stewart, 1998). Such bodies of literature can contribute to the understanding of SMEB. Further, integration of relevant literature concerning customer loyalty (Gummerus, Liljander, Pura, & Van Riel, 2004) would be valuable in further research exploring user progression through stages of SMEB.

7.4.2 Identification of Further Antecedents to SMEB

The second area warranting further academic scrutiny arising from this thesis concerns

the drivers of SMEB. Firstly, the extent to which SMEBs are caused by factors beyond social media content warrants further investigation. This thesis shows that SMEBs are a consequence of the provision of social content. However, SMEB is likely to be caused by a range of factors beyond social media content. For example, customer expressions of negatively-valenced SMEB may arise as a result of a brand-related experience outside of the social media platform. A negative product or service experience may drive customers to create destructive content within social media platforms in order to disseminate their dissatisfaction. Theoretical and empirical investigation of the factors beyond social media content which may facilitate positively- and negatively-valenced engagement behaviour will further the understanding of SMEB. Throughout recent customer engagement literature, scholars have proposed a range of antecedents to engagement related to the individual state of consumers, including *identification* (Nambisan & Baron, 2007; Tsai et al., 2012), *identity* (Eisenbeiss et al., 2012; van Doorn et al., 2010), *hedonism* (Gambetti et al., 2012; Nambisan & Baron, 2007), *interaction*, (Hollebeek, 2011b), *rapport* (Hollebeek, 2011b), *satisfaction* (van Doorn et al., 2010) and *trust* (Bowden, 2009). Future research could encapsulate these proposed antecedents and empirically test their impact on SMEB in order to generate a more comprehensive understanding of consumer motives for engaging with brands in the social media forum.

The development of a more comprehensive conceptualisation of social media content would also provide further insight into the relationship between content and SMEB. Further examination of content gratifications beyond those tested within this thesis (informational, entertaining, remunerative and relational) and their subsequent effect on SMEB would enhance knowledge regarding the UGT perspective and its ability to

explain user motives to engage with social media content. For example, Leung (2009) theorised that users are also motivated by uses and gratifications such as instrumentality, psychological reassurance, fashion/status and mobility. Moreover, Grellhesl and Punyanunt-Carter (2012) propose motives including relaxation, escape and status seeking. Motivations to engage online may also include ‘personal identity’, which involves individuals finding reinforcement for personal values, finding models of behaviour, and gaining insight into one’s self (Calder et al., 2009). The extent to which these more personal and intrinsic needs may drive online engagement behaviour provides an interesting platform for further investigation. The categorisation of user motives and resultant coding of social media content within this thesis encapsulated the four main gratifications observed in recent literature stemming from the UGT perspective. However, further research will provide a more detailed categorisation of social media content through incorporation of additional content gratifications. Moreover, social media gratifications sought by online users may vary depending on the time of day, day of the week or time of the year. Within this thesis, it was identified that social media users were more likely share and like social media content in the afternoon. Social media users were also more likely to engage with social media content if it was not posted on Thursdays and Sundays. Further research should investigate how the gratifications sought by social media users may vary across time frames and hence effect their expressions of engagement.

7.4.3 Investigation of SMEB Consequences

Future research should also investigate the consequences of SMEB. The extent to which various types of SMEB exhibited by users results in outcomes such as future purchase intention and behaviour, brand loyalty, word-of mouth and satisfaction would add

substantial value to the body of research concerning engagement. Previous engagement scholars have theorised a number of consequences of engagement, focussing commonly on positive outcomes such as loyalty (Bowden, 2009; Brodie et al., 2011; Hollebeek, 2011a), customer value (Vivek et al., 2012), word of mouth (Vivek et al., 2012) and product innovation (Hoyer et al., 2010; Sawhney et al., 2005). Future research is recommended in order to explore the consequences that may emerge as a result of various expressions of SMEB. For example, research questions could include an analysis of the relationship between user expressions of negatively-valenced SMEB and consequences such as the dissemination of offline word of mouth, dissatisfaction with the brand, product or social media brand page, and future purchase intentions. Determination of these consequences with respect to both positively- and negatively-valenced expressions of SMEB would add significant weight to the importance of understanding how marketing practitioners can mitigate or neutralise negatively-valenced SMEB, and enhance positively-valenced SMEB.

7.4.4 Incorporation of the Three Dimensional View of Customer Engagement

Another valuable area for further investigation concerns the adoption of the three dimensional view of customer engagement. This thesis focused exclusively on the behavioural manifestation of engagement. Future research should focus on theorising and examining the influence of social media content on cognitive and affective engagement. This would provide a more holistic view and comprehensive understanding of the overall engagement attributed to social media content, and consequently could be a better predictor of future behaviour. While this thesis provides an in-depth investigation of the behavioural dimension of engagement, the cognitive and affective dimensions of engagement require an equally detailed investigation. This

would provide a far more comprehensive insight into the overarching customer engagement concept.

7.5 Managerial Implications

As the data used for this thesis was extracted from the Facebook profiles of Australian wine brands, the results have use for managers in similar settings. While implications can be drawn for managers in different environmental settings, further investigation is required before the results are generalised.

7.5.1 High Level of Dormancy and Low Engagement Rates among Users

This thesis highlights an important issue to managers, with regards to the low average engagement rate and corresponding high dormancy rate identified. The development of the SMEB construct includes the important recognition and measurement of the neutral, inactive state of engagement termed ‘dormancy’. Through the use of Facebook data, this study implemented a formula through which to calculate the percentage of users who exhibit dormancy. This process is explained in Chapter 5, Section 5.5.3. The results of the study demonstrated a very high level of dormancy among social media users. The mean score for dormancy was 90%. This result is consistent with the concerns of previous scholars such as Nelson-Field and Taylor (2012) who have suggested that many brands fail to stimulate high levels of engagement within social media platforms.

This finding indicates that social media managers have not been successful in strategically engineering their content in order to stimulate high levels of engagement amongst their users. The mean score for organic reach was 19.5%, which represents the percentage of the total number of users that the post reaches, when there is no paid

sponsorship or promotion of the post. These figures are important for managers to understand, as they can provide benchmarking figures through which future research and engagement rates can be compared.

To illustrate, for a sample brand of 5000 fans, the average organic reach of 19.5% would result in a social media post reaching 975 fans. This thesis shows that on average, 10% of users who see a post are expected to engage with the post. In this example, that would be just 97 users, out of a total of 5000 fans. The data within this thesis also shows that the average number of times that a post would be commented on is 2 times. This means that on average, less than 1% of users who see the Facebook content will make a comment on the content. The results showed that posts receive on average 22 'likes' (3% of reached users). On average posts are shared 2 times (less than 1% of reached users), within a maximum of 105 shares achieved.

Managers should take these figures in to consideration when assessing their engagement rates. In order to enhance the reach of content and resultant engagement, managers should recognise the need to invest marketing budgets into digital campaigns. Within Facebook, this can include utilising options within Facebook such as paying to boost posts in order to reach a greater portion of the audience, promoting a specific call to action, or promoting the page through paid Facebook advertising campaigns.

7.5.2 Enhancing Engagement through Strategic Content Design

For managers and designers of social media content, this thesis provides important implications regarding the strategic design and delivery of social media content. The findings show that informational, entertaining, remunerative and relational social media content have a relationship with the SMEB of users.

Social media content selection

The results show that the provision of informational content within a post can significantly increase the odds of users engaging in positively-valenced engagement behaviours such as creating, contributing (shares and likes) and consuming. By placing informational content within a social media post, consuming behaviour is most likely to occur. Managers and designers of social media content are advised that if informational content is delivered, the amount of information is limited to seven or fewer elements in order to inhibit users' experiencing information overload. If managers seek to increase the number of likes on a post, they are advised to provide specifically five elements of information within the post, which would increase the odds of users liking the post by over 22 times. When the amount of informational content within a post reaches eight elements, users are over seven times more likely to detach from the content.

Entertaining content was also found to significantly predict the occurrence of user's positively-valenced SMEBs of creating and contributing. There was no evidence to suggest that if managers provide entertaining social media content, users consuming behaviour will change. The findings also demonstrated the importance of the consideration of how much entertaining content should be delivered to users. The amount of entertaining content provided within a post should be carefully considered with respect to the type of SMEB desired. No more than four elements of entertaining content should be included when managers wish to facilitate the occurrence of creating behaviour. The level of entertaining content within a post can also assist managers to mitigate the occurrence of inactive engagement behaviour in the form of dormant behaviour. Providing one or two elements of entertaining content within a post significantly decreases the likelihood that users will remain dormant.

The provision of relational content had some of the strongest effects on predicting positively-valenced SMEB. It is advised that in order to increase the likelihood of users consuming content, relational content should be included. This effect is conditional on the level of content, and hence managers should carefully engineer relational content to avoid information overload which diminishes the positive effects. No more than two elements of relational content should be included in a post in order to facilitate consuming behaviour. If managers wish to increase the number of times users comment on a post, it is advised that they include five elements of relational content. If managers wish to increase the likelihood that a post will be shared through the use of relational content, the content should be limited to a maximum of three relational elements.

The final type of social media content was remunerative content, which includes the provision details about sales, promotions, prices and exclusive deals to social media users. The findings show a positive relationship between providing this type of content and active engagement behaviours of creating and contributing. Users are likely to comment, like or share a post for the 'chance to win'. However, there is no evidence that they are actually consuming or processing the content. Nevertheless, it is likely that remunerative content will be shared and liked amongst users. The amount of remunerative content provided should be carefully considered by social media content designers. While users do respond positively to remunerative content containing deals, discounts, prices and promotions, if this content increases from just one to two elements, users will have a negative response and actively detach from the content.

Combining various types of social media content

Combining entertaining content with informational content was found to place conflicting demands on users, which significantly decreased the odds of positively-

valenced engagement behaviour occurring. Additionally, the simultaneous presence of informational content and entertaining content will increase the likelihood of users remaining dormant and therefore essentially ‘scrolling’ straight past the content. Managers are therefore advised to present informational and entertaining content exclusively from each other, rather than attempting to provide posts that contain both elements. Similar effects were observed regarding the simultaneous presence of informational and relational social media content, which had a detrimental effect on positively-valenced SMEBs, whilst the likelihood that users would either remain dormant, or detach from the social media content increased. Although the negative effects of combining two social media content types were minimal, when the possible number of relationships are considered, it should be noted that there were no additional positive effects identified in combining content types. Therefore, for managers, there is no benefit in designing social media content which attempts to simultaneously appear to users’ needs for information, entertainment, remuneration and relational interaction.

Selecting the appropriate level of richness

The results indicate that managers should carefully considered the type of post used (status, photo or video), depending on the type of content being delivered to users. For example, the findings showed that when a post has more than two elements of information, a high level of richness (e.g. video) should be used in order to increase the number of times the post will be shared. For informational posts with less than two specific items of informational content, a medium level of richness (the use of a photo) resulted in the greatest number of post shares. For entertaining, remunerative and relational content, there was no significant effect identified regarding the type of post used.

Selecting the appropriate level of content congruity

The findings show that in order to increase the number of likes on a post, informational content should be of medium congruity. This means that informational content should be more generally related to the product category (e.g. wine), rather than specifically related to the brand and product. Comparatively, the results showed that when the content is entertaining, it should be related specifically to the brand or product (high congruity) in order to increase the number of comments on a post (creating behaviour). Posting entertaining content that has nothing to do with the product or brand is therefore not a recommended strategy for wine brands.

Developing the community size

The results indicated that community size (measured by the number of likes on the brand page) had a significant impact on the occurrence of SMEBs. Medium and large community sizes (over 1,500 'fans') demonstrated a clear advantage in the number of likes received on entertaining posts. Additionally, for small community sizes, increasing the amount of entertaining content within a post *decreased* the number of shares made on a post. However, for medium and large community sizes, increasing the community size to 1,500 fans or more significantly increased the number of times the post was shared. Small community sizes were also penalised regarding dormant behaviour. While increasing levels of entertaining content within a post decreased the dormancy of users for medium and large community sizes, when the same posts were made in small community sizes, users increased in their level of dormancy. These findings show a clear justification for increasing the number of fans on social media pages in order to enhance the community size. It is advised that wine brand endeavour to increase their fan base to over 1,500 users in order to elicit more favourable responses to social media

content.

Social media content scheduling

A final important consideration for managers to consider when designing and determining social media strategy relates to the importance of post scheduling. The findings showed that users are significantly less likely to comment on posts when they are made on Thursdays and Sundays. It is advised that managers should avoid posting content on these days if they are seeking to increase the number of comments made on the post. The likelihood of social media posts being shared also significantly decreased on Mondays, Thursdays and Sundays.

It is therefore advised that social media content is posted on Tuesdays, Wednesdays or Saturdays. If managers seek to increase the number of likes on the social media content, Tuesdays and Sundays should be avoided, as the results indicated a significant decrease in this behaviour for these two days. In line with these suggestions, the results indicated that users are more dormant in their SMEB on Thursdays and Sundays.

The time of the day in which the post was made is an important consideration for managers. The findings showed that posts are significantly *less* likely to be shared and liked if the post is made before midday. It is therefore advised that managers schedule the delivery of their content for the afternoon if they wish to increase the number of likes and shares received on a post. This finding is consistent with previous speculation regarding engagement times, with social media found to engage least during the morning and early afternoon, with increased interaction toward the evening, reaching a steady, high level during the night (Golder et al., 2007).

Managers are therefore advised to carefully consider the scheduling of the delivery of social media content, and take advantage of the ‘Schedule Post’ function provided within Facebook. It is recommended that posts are not made on Thursdays or Sundays as users are least active in their SMEBs on these days. It is also recommended that brands schedule their content for after midday. Users appear to be less active in their SMEB in the morning.

7.6 Concluding Thoughts

As a result of this thesis, the knowledge of how brands can strategically facilitate engagement behaviour in the social media forum has been extended. Greater insight into the nature of SMEB has been achieved, through the conceptualisation and measurement of positively (creating, contributing and consuming) and negatively-valenced (detaching) engagement behaviours, in addition to a neutral state of engagement (dormancy).

Incorporating the research areas of customer engagement, social media marketing and UGT has allowed a more strategic and empirical investigation of engagement. The findings from this thesis have provided a framework for understanding the nature of engagement behaviour in the online forum. The thesis provides support for UGT (Katz & Foulkes, 1962; Ko et al., 2005) as an appropriate theoretical lens through which users’ responses to social media content can be further understood.

The influence of social media content on SMEB is a central contribution of this thesis, justifying how various forms of social media content can be strategically designed to influence the occurrence of creating, contributing, consuming, dormancy and detaching behaviour. The change in social media engagement behaviour as a result of

informational, entertaining, relational and remunerative social media content empirically demonstrates that users are active and selective recipients of content, and freely choose the content that they wish to engage with, as supported by UGT.

While a majority of engagement literature and corresponding customer engagement behaviour literature has focussed on the development and conceptualisation of the concept, this thesis extends the ideas through empirical quantitative enquiry. It explores the under-researched role of specific marketing activities as an antecedent to engagement behaviour, in addition to moderators of this relationship. Continual theoretical and empirical development of the antecedents and consequences of SMEB is essential for the development of engagement research in the digital age.

Appendices

Appendix A: Email to Participating Wine Brands

Hello _____,

My name is Rebecca Dolan. I am currently completing my Ph.D. in Marketing at the University of Adelaide. I am now in the second year of this project and am seeking expressions of interest from wineries that may like to participate in the project.

The study explores the use of Social Media (in particular, Facebook) by Australian wine brands and how various communication efforts influence customer engagement behaviour. The project has a number of valuable outputs to the industry, including determining exactly how social media communication can be used effectively to build and strengthen positive brand relationships with new and existing customers. The study is fully funded and supported by a Category 1 GWRDC Research Grant, which we were awarded in 2012.

At this stage of the project, we are looking for wineries that would be willing to share a portion of their “Facebook Insights” data with us for analysis. All detail of specific brands and corresponding data will be kept entirely confidential in research outputs and publications.

Participating wineries will receive a full report of the research findings and contributions of the Ph.D. following the completion of the analysis. This report will include data from all phases of the study and unique insights into the value of social media use as a marketing communications tool in the wine industry.

If this is something you would be interested in, please feel free to get in touch with me. Additionally, if you know of any other wine brands that may also be interested in the project, please feel free to pass this email on.

Analysis of the data will not commence until later in the year. However we are hoping to finalise our list of collaborating wineries in the coming months.

Thank you for your consideration and I look forward to hearing from you soon,

Kind Regards.

Appendix B: NVivo10 Word Frequency Report

Word	Count	Similar Words
wines	250	#wine, #wines, 'wine, wine', wine#slide, wines
today	249	today
cellars	231	cellar, cellaring, cellars
great	223	great
tastings	211	taste, 'taste', tasted, tastes, tasting, tastings
vineyards	193	#vineyard, vineyard, vineyard', vineyards, vineyards'
shiraz	184	#shiraz, shiraz, shiraz'
weekend	180	weekend, weekends
McLaren	148	McLaren, 'McLaren
estate	145	estate
vintages	145	#vintage, @vintage, vintage, vintages
winemaker	141	winemaker, winemaker', winemakers, winemakers', winemaking
events	135	event, events
Barossa	132	#Barossa, Barossa, Barossa'
visit	129	visit, visited, visiting, visits
photos	119	photo, photos
enjoys	119	#enjoy, enjoy, enjoyable, enjoyed, enjoying, enjoyment, enjoys
check	118	check, checked, checking
morning	114	morning
thanks	113	thank, thankful, thanking, thanks
Adelaide	113	#Adelaide, @Adelaide, Adelaide, 'Adelaide, Adelaide's
restaurants	108	#restaurant, restaurant, restaurants
bottling	108	bottle, bottle', bottled, bottles, bottling
winery	107	#winery, wineries, winery
beauty	105	beauties, beautiful, beautifully, beauty
Friday	105	#Friday, Friday
festival	104	festival, festive, festivities
looks	103	looked, looking, looks
Australia's	102	#Australia, Australia, Australia's
Sunday	100	Sunday, Sundays
tickets	98	ticket, ticketing, tickets
friends	95	friend, friendly, friends
little	94	little
release	90	release, release', released, releases, releasing
voyager	90	voyage', voyager
nights	86	night, nights
happy	85	happy
first	79	first
amazing	78	#amazing, amazed, amazing, 'amazing'
vines	78	#vines, vines
cabernet	77	cabernet, cabernet', cabernets
chapel	76	chapel
Grenache	76	#Grenache, Grenache, Grenaches
purchased	75	#purchase, purchase, purchased, purchases, purchasing
Oliver	74	olive, Oliver, Oliver's, olives
dinner	73	dinner, dinners
glass	73	glass, glass', glasses

share	73	share, shared, shares, sharing
wirra	73	wirra
Pindarie	71	Pindarie
Australian	71	Australian, Australians
turkey	71	turkey, 'turkey', turkeys
available	70	avail, availability, available
blanc	69	blanc, blancs
starts	69	start, started, starting, starts
coombeyarravalley	68	#coombeyarravalley, @coombeyarravalley, coombeyarravalley
including	67	include, included, includes, including
Christmas	65	#Christmas, Christmas
online	65	online
gardens	64	#garden, #gardens, garden, gardening, gardens, gardens'
Henschke	64	#Henschke, @Henschke, Henschke
river	64	river
weather	64	#weather, weather
#Yarra valley	63	#Yarra valley
Margaret	63	Margaret
sauvignon	63	sauvignon
excited	62	excited, excitement, exciting, excitingly
grape	62	grape, grapes, grapes'
#melbaestate	58	#melbaestate
offer	58	offer, offered, offering, offers
block	57	block, blocked, blocks
think	57	think, thinking
music	56	music, 'music, musical
celebrity	55	celebrate, celebrated, celebrating, celebration, celebrations, celebrity
loving	55	loved, lovely, loves, loving
perfectly	55	perfect, 'perfect, perfectly
whiting	55	white, whites, whites', whiting
awesome	54	awesome
specials	54	special, specials
everyone	53	everyone
chardonnay	53	#chardonnay, chardonnay, chardonnays
still	53	still, 'still
another	52	another
party	52	partie, parties, party
summer	52	summer
coming	51	comes, coming
covered	51	cover, covered, covers
review	51	review, reviewed, reviewers, reviews
Taranga	50	taranga, 'taranga
tomorrow	50	tomorrow
delicious	50	#delicious, delicious, deliciously
lunch	49	lunch, lunching
around	48	around
valley	48	valley, valleys
course	47	course, courses
Easter	47	#Easter, Easter
gourmet	47	gourmet, 'gourmet
matched	47	match, matched, matches, matching

tonight	47	tonight, tonight's
awards	46	award, awarded, awards
favourite	45	favourite, favourites
month	45	month, monthly, months
Riesling	45	Riesling, Riesling', Rieslings
winter	45	#winter, winter
merlot	45	#merlot, merlot
d'arenberg	44	d'arenberg
forward	44	forward
going	44	going
Sydney	44	Sydney
selection	44	selected, selecting, selection, selections
south	44	south, south'
turkeyflat	44	#turkeyflat, turkeyflat
experience	43	experience, experience', experience', experiences, experiment,
please	43	please, pleased
website	43	website
drinks	42	drink, drinking, drinks
family	42	#family, families, family
Corrina	42	Corrina
producers	42	#produce, produce, produced, producers, produces, producing
@voyagerestate	41	@voyagerestate, voyagerestate
fruits	41	fruit, fruitful, fruits
Monday	41	Monday, Mondayitis
Saturday	41	Saturday
years	41	yearly, years
order	40	order, ordered, ordering, orders
quick	40	quick, quickly
blend	40	blend, blended, blending, blends
competition	40	#competition, competition
Coombe	40	#Coombe, Coombe
bookings	39	booked, booking, bookings
#Victoria	39	#Victoria, Victoria
d'arry	39	d'arry
Melbourne	39	#Melbourne, Melbourne
region	39	region, regional, regionality, regions
early	38	early
latest	38	latest
opening	38	opened, opening, opens
prizes	38	#prizes, prize, prized, prizes
winner	38	winner, winners, winners'
fermenters	37	ferment, fermentation, fermented, fermenter, fermenters, fermenting, ferments
feature	37	feature, featured, features, featuring
James	37	James, James'
season	37	season, seasonal, seasons
something	37	something, something'
lucky	36	lucky
bring	35	bring, bringing, brings
afternoon	35	afternoon
every	35	every

place	35	place, placed, places
collections	35	collected, collecting, collection, collections, collective, collects
fabulous	34	fabulous
Fleurieu	34	Fleurieu, 'fleurieu
local	34	local, locally, locals
market	34	market, marketing, markets
people	34	people
sparkling	34	#sparkling, sparkling
verandah	34	verandah
manager	34	manage, managed, manager, managing
single	33	single
world	33	world
spring	33	#spring, spring, springs
barrels	32	barrel, barreling, barrels, barrels'
chestier	32	chestier
closes	32	close, closed, closes, closing
Lenswood	32	#Lenswood, Lenswood
making	32	makes, making
melba	32	melba, melbas
picking	32	picked, picking, picking'
semillon	32	semillon
taking	32	takes, taking
watch	32	watch, watching
flavour	31	flavour, flavoured, flavours
follow	31	follow, followed, followers, following
wonderful	31	wonder, wondered, wonderful, wondering
cheers	31	#cheers, cheer, cheerful, cheers, 'cheers'
harvest	31	harvest, harvested, harvesting
congratulations	30	congratulations
lemon	30	lemon, lemons
ready	30	ready
receive	30	receive, received, receives, receiving
works	30	worked, working, works
Facebook	29	Facebook
juice	29	juice
press	29	press, pressed, pressing, pressings
yesterday	29	yesterday
announced	29	announce, announced, announcement, announcements, announcing
better	29	better, 'better
chance	29	chance, chances
international	28	intern, internal, international, 'international
person	28	person, personal, personalities, personality, personally
serve	28	serve, served, serving
fantastic	28	fantastic
Instagram	28	Instagram
launch	28	launch, launched, launches, launching
magazine	28	magazine
really	28	really
artist	27	artist, artistic, artists
getting	27	getting
Halliday	27	Halliday

Appendix C: Word Search Formulas for Post Content Coding

Code	Formula
Informational Content	
Brand name	=IF(ISNUMBER(SEARCH("DFW",\$D3)),1,IF(ISNUMBER(SEARCH("turkey flat",\$D3)),1,"0"))
Product image*	=IF(ISNUMBER(SEARCH("[insertimageID#"],\$H3)),1,IF(ISNUMBER(SEARCH("[150,5"],\$H3)),1,IF(ISNUMBER(SEARCH("[insert image ID#"],\$H3)),1,IF(ISNUMBER(SEARCH("[insert image ID#"],\$H3)),1,"0"))))
Winery image*	=IF(ISNUMBER(SEARCH("[insertimageID#"],\$H3)),1,IF(ISNUMBER(SEARCH("[150,5"],\$H3)),1,IF(ISNUMBER(SEARCH("[insert image ID#"],\$H3)),1,IF(ISNUMBER(SEARCH("[insert image ID#"],\$H3)),1,"0"))))
Price	=IF(ISNUMBER(SEARCH("\$",\$D3)),1,IF(ISNUMBER(SEARCH("PRICE",\$D3)),1,IF(ISNUMBER(SEARCH("dollar",\$D3)),1,"0")))
Venue image*	=IF(ISNUMBER(SEARCH("[insertimageID#"],\$H3)),1,IF(ISNUMBER(SEARCH("[150,5"],\$H3)),1,IF(ISNUMBER(SEARCH("[insert image ID#"],\$H3)),1,IF(ISNUMBER(SEARCH("[insert image ID#"],\$H3)),1,"0"))))
Review/award image*	=IF(ISNUMBER(SEARCH("[insertimageID#"],\$H3)),1,IF(ISNUMBER(SEARCH("[150,5"],\$H3)),1,IF(ISNUMBER(SEARCH("[insert image ID#"],\$H3)),1,IF(ISNUMBER(SEARCH("[insert image ID#"],\$H3)),1,"0"))))
Tasting, samples, testing	=IF(ISNUMBER(SEARCH("tasting",\$D3)),1,IF(ISNUMBER(SEARCH("taste",\$D3)),1,IF(ISNUMBER(SEARCH("tried",\$D3)),1,IF(ISNUMBER(SEARCH("samples",\$D3)),1,IF(ISNUMBER(SEARCH("try",\$D3)),1,IF(ISNUMBER(SEARCH("try",\$D3)),1,IF(ISNUMBER(SEARCH("trying",\$D3)),1,"0"))))))))
Variety	=IF(ISNUMBER(SEARCH("Chardonnay",\$D4)),1,IF(ISNUMBER(SEARCH("Pinot Grigio",\$D4)),1,IF(ISNUMBER(SEARCH("Riesling",\$D4)),1,IF(ISNUMBER(SEARCH("Sauvignon Blanc",\$D4)),1,IF(ISNUMBER(SEARCH("Viogner",\$D4)),1,IF(ISNUMBER(SEARCH("Chenin Blanc",\$D4)),1,IF(ISNUMBER(SEARCH("Gewurtztraminer",\$D4)),1,IF(ISNUMBER(SEARCH("Semillon",\$D4)),1,IF(ISNUMBER(SEARCH("Verdehlo",\$D4)),1,IF(ISNUMBER(SEARCH("Cabernet Sauvignon",\$D4)),1,IF(ISNUMBER(SEARCH("Pinot Noir",\$D4)),1,IF(ISNUMBER(SEARCH("Tempranillo",\$D4)),1,IF(ISNUMBER(SEARCH("Carmanere",\$D4)),1,IF(ISNUMBER(SEARCH("Durif",\$D4)),1,IF(ISNUMBER(SEARCH("Grenache",\$D4)),1,IF(ISNUMBER(SEARCH("Shiraz",\$D4)),1,IF(ISNUMBER(SEARCH("Sangiovese",\$D4)),1,IF(ISNUMBER(SEARCH("Zinfandel",\$D4)),1,IF(ISNUMBER(SEARCH("Mouvedre",\$D4)),1,IF(ISNUMBER(SEARCH("Mataro",\$D4)),1,IF(ISNUMBER(SEARCH("Syrah",\$D4)),1,IF(ISNUMBER(SEARCH("savnigin",\$D4)),1,IF(ISNUMBER(SEARCH("Traminer",\$D4)),1,IF(ISNUMBER(SEARCH("Colombard",\$D4)),1,IF(ISNUMBER(SEARCH("muscat gordo blanco",\$D4)),1,IF(ISNUMBER(SEARCH("muscat a petits grains blanc",\$D4)),1,IF(ISNUMBER(SEARCH("malbec",\$D4)),1,IF(ISNUMBER(SEARCH("nebbiolo",\$D4)),1,IF(ISNUMBER(SEARCH("ruby cabernet",\$D4)),1,IF(ISNUMBER(SEARCH("petit

	verdot",\$D4)), "1",IF(ISNUMBER(SEARCH("dolcetto",\$D4)), "1",IF(ISNUMBER(SEARCH("durif",\$D4)), "1",IF(ISNUMBER(SEARCH("barbera",\$D4)), "1",IF(ISNUMBER(SEARCH("cabernet franc",\$D4)), "1",IF(ISNUMBER(SEARCH("muscat a petits grains rouge",\$D4)), "1",IF(ISNUMBER(SEARCH("merlot",\$D4)), "1",IF(ISNUMBER(SEARCH("pinot D4)), "1gris",\$,IF(ISNUMBER(SEARCH("pinot grigio",\$D4)), "1",IF(ISNUMBER(SEARCH("roussane",\$D4)), "1",IF(ISNUMBER(SEARCH("sultana",\$D4)), "1",IF(ISNUMBER(SEARCH("trebbiano",\$D4)), "1",IF(ISNUMBER(SEARCH("arneis",\$D4)), "1",IF(ISNUMBER(SEARCH("crouchen",\$D4)), "1",IF(ISNUMBER(SEARCH("marsanne",\$D4)), "1",IF(ISNUMBER(SEARCH("tarrango",\$D4)), "1",IF(ISNUMBER(SEARCH("Touriga",\$D4)), "1", "0"))))))))))))))))))))
Product detail	=IF(ISNUMBER(SEARCH("range",\$D3)), "1",IF(ISNUMBER(SEARCH("product",\$D3)), "1",IF(ISNUMBER(SEARCH("wine",\$D3)), "1", "0"))
Region	=IF(ISNUMBER(SEARCH("Barossa",\$D3)), "1",IF(ISNUMBER(SEARCH("Clare",\$D3)), "1",IF(ISNUMBER(SEARCH("Eden",\$D3)), "1",IF(ISNUMBER(SEARCH("Currency",\$D3)), "1",IF(ISNUMBER(SEARCH("Kangaroo Island",\$D3)), "1",IF(ISNUMBER(SEARCH("Langhorne Creek",\$D3)), "1",IF(ISNUMBER(SEARCH("McLaren Vale",\$D3)), "1",IF(ISNUMBER(SEARCH("Southern Fleurieu",\$D3)), "1",IF(ISNUMBER(SEARCH("Coonawarra",\$D3)), "1",IF(ISNUMBER(SEARCH("Mount Benson",\$D3)), "1",IF(ISNUMBER(SEARCH("Padthaway",\$D3)), "1",IF(ISNUMBER(SEARCH("Wrattontully",\$D3)), "1",IF(ISNUMBER(SEARCH("Robe",\$D3)), "1",IF(ISNUMBER(SEARCH("Bordertown",\$D3)), "1",IF(ISNUMBER(SEARCH("Riverland",\$D3)), "1",IF(ISNUMBER(SEARCH("Adelaide Hills",\$D3)), "1",IF(ISNUMBER(SEARCH("Lenswood",\$D3)), "1",IF(ISNUMBER(SEARCH("Piccadilly Valley",\$D3)), "1",IF(ISNUMBER(SEARCH("Adelaide Plains",\$D3)), "1",IF(ISNUMBER(SEARCH("Clare Valley",\$D3)), "1",IF(ISNUMBER(SEARCH("North West",\$D3)), "1",IF(ISNUMBER(SEARCH("Piccadilly Valley",\$D3)), "1",IF(ISNUMBER(SEARCH("Adelaide Plains",\$D3)), "1",IF(ISNUMBER(SEARCH("Clare Valley",\$D3)), "1",IF(ISNUMBER(SEARCH("North West",\$D3)), "1",IF(ISNUMBER(SEARCH("Tamar Valley",\$D3)), "1",IF(ISNUMBER(SEARCH("Pipers River",\$D3)), "1",IF(ISNUMBER(SEARCH("East Coast",\$D3)), "1",IF(ISNUMBER(SEARCH("Coal River",\$D3)), "1",IF(ISNUMBER(SEARCH("Derwent Valley",\$D3)), "1",IF(ISNUMBER(SEARCH("Southern",\$D3)), "1",IF(ISNUMBER(SEARCH("Bendigo",\$D3)), "1",IF(ISNUMBER(SEARCH("Goulburn Valley",\$D3)), "1",IF(ISNUMBER(SEARCH("Nagambie Lakes",\$D3)), "1",IF(ISNUMBER(SEARCH("Heathcote",\$D3)), "1",IF(ISNUMBER(SEARCH("Strathbogie Ranges",\$D3)), "1",IF(ISNUMBER(SEARCH("Upper Goulburn",\$D3)), "1",IF(ISNUMBER(SEARCH("Gippsland",\$D3)), "1",IF(ISNUMBER(SEARCH("Alpine Valley",\$D3)), "1",IF(ISNUMBER(SEARCH("Beechworth",\$D3)), "1",IF(ISNUMBER(SEARCH("Glenrowan",\$D3)), "1",IF(ISNUMBER(SEARCH("Rutherglen",\$D3)), "1",IF(ISNUMBER(SEARCH("Murray Darling",\$D3)), "1",IF(ISNUMBER(SEARCH("Swan Hill",\$D3)), "1",IF(ISNUMBER(SEARCH("Geelong",\$D3)), "1",IF(ISNUMBER(SEARCH("Macedon Ranges",\$D3)), "1",IF(ISNUMBER(SEARCH("Mornington Peninsula",\$D3)), "1",IF(ISNUMBER(SEARCH("Sunbury",\$D3)), "1",IF(ISNUMBER(SEARCH("Yarra

	NUMBER(SEARCH("silver",\$D3),"1",IF(ISNUMBER(SEARCH("bronze",\$D3)), "1",IF(ISNUMBER(SEARCH("star",\$D3)), "1",IF(ISNUMBER(SEARCH("judge",\$D3)), "1",IF(ISNUMBER(SEARCH("named",\$D3)), "1",IF(ISNUMBER(SEARCH("listed",\$D3)), "1",IF(ISNUMBER(SEARCH("finalist",\$D3)), "1",IF(ISNUMBER(SEARCH("achievement",\$D3)), "1",IF(ISNUMBER(SEARCH("success",\$D3)), "1",IF(ISNUMBER(SEARCH("rating",\$D3)), "1",IF(ISNUMBER(SEARCH("wineoftheyear",\$D3)), "1", "0"))
Wine description	=IF(ISNUMBER(SEARCH("red",\$D3)), "1",IF(ISNUMBER(SEARCH("white",\$D3)), "1",IF(ISNUMBER(SEARCH("fruit",\$D3)), "1",IF(ISNUMBER(SEARCH("tannin",\$D3)), "1",IF(ISNUMBER(SEARCH("oak",\$D3)), "1",IF(ISNUMBER(SEARCH("fresh",\$D3)), "1",IF(ISNUMBER(SEARCH("clean",\$D3)), "1",IF(ISNUMBER(SEARCH("crisp",\$D3)), "1",IF(ISNUMBER(SEARCH("elegant",\$D3)), "1",IF(ISNUMBER(SEARCH("soft",\$D3)), "1",IF(ISNUMBER(SEARCH("smooth",\$D3)), "1",IF(ISNUMBER(SEARCH("bold",\$D3)), "1",IF(ISNUMBER(SEARCH("chocolate",\$D3)), "1",IF(ISNUMBER(SEARCH("rich",\$D3)), "1",IF(ISNUMBER(SEARCH("full bodied",\$D3)), "1",IF(ISNUMBER(SEARCH("yum",\$D3)), "1",IF(ISNUMBER(SEARCH("tasty",\$D3)), "1",IF(ISNUMBER(SEARCH("delicious",\$D3)), "1",IF(ISNUMBER(SEARCH("spice",\$D3)), "1",IF(ISNUMBER(SEARCH("zest",\$D3)), "1",IF(ISNUMBER(SEARCH("acid",\$D3)), "1",IF(ISNUMBER(SEARCH("aroma",\$D3)), "1",IF(ISNUMBER(SEARCH("dense",\$D3)), "1",IF(ISNUMBER(SEARCH("palate",\$D3)), "1",IF(ISNUMBER(SEARCH("flavour",\$D3)), "1",IF(ISNUMBER(SEARCH("fragrance",\$D3)), "1",IF(ISNUMBER(SEARCH("balanced",\$D3)), "1",IF(ISNUMBER(SEARCH("caramel",\$D3)), "1",IF(ISNUMBER(SEARCH("complementing",\$D3)), "1",IF(ISNUMBER(SEARCH("citrus",\$D3)), "1",IF(ISNUMBER(SEARCH("chalky",\$D3)), "1",IF(ISNUMBER(SEARCH("characters",\$D3)), "1",IF(ISNUMBER(SEARCH("notes",\$D3)), "1",IF(ISNUMBER(SEARCH("raisin",\$D3)), "1",IF(ISNUMBER(SEARCH("mocha",\$D3)), "1",IF(ISNUMBER(SEARCH("tannic",\$D3)), "1",IF(ISNUMBER(SEARCH("toffee",\$D3)), "1",IF(ISNUMBER(SEARCH("vibrant",\$D3)), "1",IF(ISNUMBER(SEARCH("colour",\$D3)), "1", "0"))
Entertaining Content	
Emoticon	=IF(ISNUMBER(SEARCH(":)",\$D4),"1","0")
Humour	=IF(ISNUMBER(SEARCH("fun",\$D4),"1",IF(ISNUMBER(SEARCH("funny",\$D4)), "1",IF(ISNUMBER(SEARCH("banter",\$D4)), "1",IF(ISNUMBER(SEARCH("joke",\$D4)), "1",IF(ISNUMBER(SEARCH("gag",\$D4)), "1",IF(ISNUMBER(SEARCH("happy",\$D4)), "1",IF(ISNUMBER(SEARCH("joking",\$D4)), "1",IF(ISNUMBER(SEARCH("kidding",\$D4)), "1",IF(ISNUMBER(SEARCH("april fools",\$D4)), "1",IF(ISNUMBER(SEARCH("hilarious",\$D4)), "1",IF(ISNUMBER(SEARCH("cool",\$D4)), "1",IF(ISNUMBER(SEARCH("whimsical",\$D4)), "1",IF(ISNUMBER(SEARCH("exciting",\$D4)), "1",IF(ISNUMBER(SEARCH("haha",\$D4)), "1",IF(ISNUMBER(SEARCH("hehe",\$D4)), "1",IF(ISNUMBER(SEARCH("entertain",\$D4)), "1",IF(ISNUMBER(SEARCH("laugh",\$D4)), "1",IF(ISNUMBER(SEARCH("giggle",\$D4)), "1", "0"))
Vineyard Image*	=IF(ISNUMBER(SEARCH("[insertimageID#]",\$H3)), "1",IF(ISNUMBER(SEARCH("[150,5]",\$H3)), "1",IF(ISNUMBER(SEARCH("[insert image ID#]",\$H3)), "1",IF(ISNUMBER(SEARCH("[insert image ID#]",\$H3)), "1", "0"))))
Meme Image*	=IF(ISNUMBER(SEARCH("[insertimageID#]",\$H3)), "1",IF(ISNUMBER(SEARCH("[150,5]",\$H3)), "1",IF(ISNUMBER(SEARCH("[insert image ID#]",\$H3)), "1",IF(ISNUMBER(SEARCH("[insert image ID#]",\$H3)), "1", "0"))))

Animal Image*	=IF(ISNUMBER(SEARCH("[insertimageID#]", \$H3)), "1", IF(ISNUMBER(SEARCH("[150,5]", \$H3)), "1", IF(ISNUMBER(SEARCH("[insert image ID#]", \$H3)), "1", IF(ISNUMBER(SEARCH("[insert image ID#]", \$H3)), "1", "0"))))
Slang	=IF(ISNUMBER(SEARCH("lol", \$D4)), "1", IF(ISNUMBER(SEARCH("omg", \$D4)), "1", IF(ISNUMBER(SEARCH("jk", \$D4)), "1", IF(ISNUMBER(SEARCH("wtf", \$D4)), "1", IF(ISNUMBER(SEARCH("L8R", \$D4)), "1", IF(ISNUMBER(SEARCH("plz", \$D4)), "1", IF(ISNUMBER(SEARCH("tyl", \$D4)), "1", IF(ISNUMBER(SEARCH("cheers", \$D4)), "1", IF(ISNUMBER(SEARCH("guys", \$D4)), "1", IF(ISNUMBER(SEARCH("wow", \$D4)), "1", IF(ISNUMBER(SEARCH("arvo", \$D4)), "1", IF(ISNUMBER(SEARCH("aussie", \$D4)), "1", "0"))))))))))))
Remunerative Content	
Deal/Offer	=IF(ISNUMBER(SEARCH("special", \$D4)), "1", IF(ISNUMBER(SEARCH("discount", \$D4)), "1", IF(ISNUMBER(SEARCH("exclusive", \$D4)), "1", IF(ISNUMBER(SEARCH("deal", \$D4)), "1", IF(ISNUMBER(SEARCH("sale", \$D4)), "1", IF(ISNUMBER(SEARCH("promotion", \$D4)), "1", IF(ISNUMBER(SEARCH("clearance", \$D4)), "1", IF(ISNUMBER(SEARCH("bargain", \$D4)), "1", IF(ISNUMBER(SEARCH("on sale", \$D4)), "1", IF(ISNUMBER(SEARCH("marked down", \$D4)), "1", IF(ISNUMBER(SEARCH("low price", \$D4)), "1", "0"))))))))))))
Purchase instructions	=IF(ISNUMBER(SEARCH("buy", \$D4)), "1", IF(ISNUMBER(SEARCH("order", \$D4)), "1", IF(ISNUMBER(SEARCH("purchase", \$D4)), "1", IF(ISNUMBER(SEARCH("order form", \$D4)), "1", IF(ISNUMBER(SEARCH("store", \$D4)), "1", IF(ISNUMBER(SEARCH("shop", \$D4)), "1", "0"))))))
Competition	=IF(ISNUMBER(SEARCH("win", \$D4)), "1", IF(ISNUMBER(SEARCH("reward", \$D4)), "1", IF(ISNUMBER(SEARCH("free", \$D4)), "1", IF(ISNUMBER(SEARCH("prize", \$D4)), "1", "0"))))
Relational Content	
Question	=IF(ISNUMBER(SEARCH("~?", \$D4)), "1", IF(ISNUMBER(SEARCH("question", \$D4)), "1", "0"))
Quiz/game	=IF(ISNUMBER(SEARCH("quiz", \$D4)), "1", IF(ISNUMBER(SEARCH("game", \$D4)), "1", IF(ISNUMBER(SEARCH("test", \$D4)), "1", IF(ISNUMBER(SEARCH("guess", \$D4)), "1", IF(ISNUMBER(SEARCH("challenge", \$D4)), "1", "0")))))
Holiday, event, day	=IF(ISNUMBER(SEARCH("birthday", \$D4)), "1", IF(ISNUMBER(SEARCH("christmas", \$D4)), "1", IF(ISNUMBER(SEARCH("easter", \$D4)), "1", IF(ISNUMBER(SEARCH("boxing day", \$D4)), "1", IF(ISNUMBER(SEARCH("new year", \$D4)), "1", IF(ISNUMBER(SEARCH("Australia day", \$D4)), "1", IF(ISNUMBER(SEARCH("good friday", \$D4)), "1", IF(ISNUMBER(SEARCH("anzac day", \$D4)), "1", IF(ISNUMBER(SEARCH("queen's birthday", \$D4)), "1", IF(ISNUMBER(SEARCH("labour day", \$D4)), "1", IF(ISNUMBER(SEARCH("holiday", \$D4)), "1", IF(ISNUMBER(SEARCH("public holiday", \$D4)), "1", IF(ISNUMBER(SEARCH("Melbourne cup", \$D4)), "1", IF(ISNUMBER(SEARCH("April fool", \$D4)), "1", IF(ISNUMBER(SEARCH("father's day", \$D4)), "1", IF(ISNUMBER(SEARCH("mother's day", \$D4)), "1", IF(ISNUMBER(SEARCH("monday", \$D4)), "1", IF(ISNUMBER(SEARCH("tuesday", \$D4)), "1", IF(ISNUMBER(SEARCH("wednesday", \$D4)), "1", IF(ISNUMBER(SEARCH("thursday", \$D4)), "1", IF(ISNUMBER(SEARCH("friday", \$D4)), "1", IF(ISNUMBER(SEARCH("saturday", \$D4)), "1", IF(ISNUMBER(SEARCH("sunday", \$D4)), "1", "0"))))))))))))))))))))

Appendices

Emotion	=IF(ISNUMBER(SEARCH("delighted",\$D5)),"1",IF(ISNUMBER(SEARCH("ebullient",\$D5)),"1",IF(ISNUMBER(SEARCH("ecstatic",\$D5)),"1",IF(ISNUMBER(SEARCH("elated",\$D5)),"1",IF(ISNUMBER(SEARCH("energetic",\$D5)),"1",IF(ISNUMBER(SEARCH("enthusiastic",\$D5)),"1",IF(ISNUMBER(SEARCH("euphoric",\$D5)),"1",IF(ISNUMBER(SEARCH("excited",\$D5)),"1",IF(ISNUMBER(SEARCH("exhilarated",\$D5)),"1",IF(ISNUMBER(SEARCH("overjoyed",\$D5)),"1",IF(ISNUMBER(SEARCH("thrilled",\$D5)),"1",IF(ISNUMBER(SEARCH("tickled pink",\$D5)),"1",IF(ISNUMBER(SEARCH("turned on",\$D5)),"1",IF(ISNUMBER(SEARCH("vibrant",\$D5)),"1",IF(ISNUMBER(SEARCH("zippy",\$D5)),"1",IF(ISNUMBER(SEARCH("aglow",\$D5)),"1",IF(ISNUMBER(SEARCH("bouyant",\$D5)),"1",IF(ISNUMBER(SEARCH("cheerful",\$D5)),"1",IF(ISNUMBER(SEARCH("elevated",\$D5)),"1",IF(ISNUMBER(SEARCH("gleeful",\$D5)),"1",IF(ISNUMBER(SEARCH("happy",\$D5)),"1",IF(ISNUMBER(SEARCH("in high spirits",\$D5)),"1",IF(ISNUMBER(SEARCH("jovial",\$D5)),"1",IF(ISNUMBER(SEARCH("light-hearted",\$D5)),"1",IF(ISNUMBER(SEARCH("lively",\$D5)),"1",IF(ISNUMBER(SEARCH("merry",\$D5)),"1",IF(ISNUMBER(SEARCH("riding high",\$D5)),"1",IF(ISNUMBER(SEARCH("sparling",\$D5)),"1",IF(ISNUMBER(SEARCH("up",\$D5)),"1","0"))))))))))))))))))))))))))))
Happy	
Caring	
Depression	
Inadequateness	
Fear	
Confusion	
Hurt	
Anger	
Loneliness	
Remorse	=IF(ISNUMBER(SEARCH("adoring",\$D5)),"1",IF(ISNUMBER(SEARCH("ardent",\$D5)),"1",IF(ISNUMBER(SEARCH("cherishing",\$D5)),"1",IF(ISNUMBER(SEARCH("compassionate",\$D5)),"1",IF(ISNUMBER(SEARCH("crazy about",\$D5)),"1",IF(ISNUMBER(SEARCH("devoted",\$D5)),"1",IF(ISNUMBER(SEARCH("doting",\$D5)),"1",IF(ISNUMBER(SEARCH("ferve nt",\$D5)),"1",IF(ISNUMBER(SEARCH("idolizing",\$D5)),"1",IF(ISNUMBER(SEARCH("infatuated",\$D5)),"1",IF(ISNUMBER(SEARCH("passi onate",\$D5)),"1",IF(ISNUMBER(SEARCH("wild about",\$D5)),"1",IF(ISNUMBER(SEARCH("worshipful",\$D5)),"1",IF(ISNUMBER(SEARCH("zealous",\$D5)),"1",IF(ISNUMBER(SEARCH("a dmiring",\$D5)),"1",IF(ISNUMBER(SEARCH("affectionate",\$D5)),"1",IF(ISNUMBER(SEARCH("attached",\$D5)),"1",IF(ISNUMBER(SEARCH ("fond",\$D5)),"1",IF(ISNUMBER(SEARCH("huggy",\$D5)),"1",IF(ISNUMBER(SEARCH("kind",\$D5)),"1",IF(ISNUMBER(SEARCH("kind hearted",\$D5)),"1",IF(ISNUMBER(SEARCH("loving",\$D5)),"1",IF(ISNUMBER(SEARCH("partial",\$D5)),"1",IF(ISNUMBER(SEARCH("soft on",\$D5)),"1",IF(ISNUMBER(SEARCH("sympathetic",\$D5)),"1",IF(ISNUMBER(SEARCH("tender",\$D5)),"1",IF(ISNUMBER(SEARCH("trusti ng",\$D5)),"1",IF(ISNUMBER(SEARCH("warm hearted",\$D5)),"1",IF(ISNUMBER(SEARCH("appreciative",\$D5)),"1",IF(ISNUMBER(SEARCH("attentive",\$D5)),"1",IF(ISNUMBER(SEARCH H("considerate",\$D5)),"1",IF(ISNUMBER(SEARCH("friendly",\$D5)),"1",IF(ISNUMBER(SEARCH("interested in",\$D5)),"1",IF(ISNUMBER(SEARCH("kind",\$D5)),"1",IF(ISNUMBER(SEARCH("respective",\$D5)),"1",IF(ISNUMBER(SEARCH("thoughtf ul",\$D5)),"1",IF(ISNUMBER(SEARCH("tolerant",\$D5)),"1",IF(ISNUMBER(SEARCH("warm toward",\$D5)),"1",IF(ISNUMBER(SEARCH("yielding",\$D5)),"1","0"))
	=IF(ISNUMBER(SEARCH("alienated",\$D5)),"1",IF(ISNUMBER(SEARCH("barren",\$D5)),"1",IF(ISNUMBER(SEARCH("beaten",\$D5)),"1",IF (ISNUMBER(SEARCH("bleak",\$D5)),"1",IF(ISNUMBER(SEARCH("bleeding",\$D5)),"1",IF(ISNUMBER(SEARCH("dejected",\$D5)),"1",IF(ISNUMBER(SEARCH("depressed",\$D5)),"1",IF(ISNUMBER(SEARCH("desolate",\$D5)),"1",IF(ISNUMBER(SEARCH("despondent",\$D5)),"1",I F(ISNUMBER(SEARCH("dismal",\$D5)),"1",IF(ISNUMBER(SEARCH("empty",\$D5)),"1",IF(ISNUMBER(SEARCH("gloomy",\$D5)),"1",IF(ISNUMBER(SEARCH("grieve",\$D5)),"1",IF(ISNUMBER(SEARCH("grim",\$D5)),"1",IF(ISNUMBER(SEARCH("hopeless",\$D5)),"1",IF(ISNUM

	<p>BER(SEARCH("in despair",\$D5),"1",IF(ISNUMBER(SEARCH("woeful",\$D5)), "1",IF(ISNUMBER(SEARCH("worried",\$D5)), "1",IF(ISNUMBER(SEARCH("awful",\$D5)), "1",IF(ISNUMBER(SEARCH("blue",\$D5)), "1",IF(ISNUMBER(SEARCH("crestfall",\$D5)), "1",IF(ISNUMBER(SEARCH("demoralized",\$D5)), "1",IF(ISNUMBER(SEARCH("devalued",\$D5)), "1",IF(ISNUMBER(SEARCH("discouraged",\$D5)), "1",IF(ISNUMBER(SEARCH("dispirited",\$D5)), "1",IF(ISNUMBER(SEARCH("distressed",\$D5)), "1",IF(ISNUMBER(SEARCH("downcast",\$D5)), "1",IF(ISNUMBER(SEARCH("downhearted",\$D5)), "1",IF(ISNUMBER(SEARCH("fed up",\$D5)), "1",IF(ISNUMBER(SEARCH("lost",\$D5)), "1",IF(ISNUMBER(SEARCH("melancholy",\$D5)), "1",IF(ISNUMBER(SEARCH("miserable",\$D5)), "1",IF(ISNUMBER(SEARCH("regretful",\$D5)), "1",IF(ISNUMBER(SEARCH("rotten",\$D5)), "1",IF(ISNUMBER(SEARCH("sorrowful",\$D5)), "1",IF(ISNUMBER(SEARCH("tearful",\$D5)), "1",IF(ISNUMBER(SEARCH("upset",\$D5)), "1",IF(ISNUMBER(SEARCH("weepy",\$D5)), "1",IF(ISNUMBER(SEARCH("disappointed",\$D5)), "1",IF(ISNUMBER(SEARCH("funk",\$D5)), "1",IF(ISNUMBER(SEARCH("glum",\$D5)), "1",IF(ISNUMBER(SEARCH("moody",\$D5)), "1",IF(ISNUMBER(SEARCH("morose",\$D5)), "1",IF(ISNUMBER(SEARCH("sombre",\$D5)), "1",IF(ISNUMBER(SEARCH("subdued",\$D5)), "1",IF(ISNUMBER(SEARCH("uncomfortable",\$D5)), "1",IF(ISNUMBER(SEARCH("unhappy",\$D5)), "1","0")) =IF(ISNUMBER(SEARCH("blemished",\$D5)), "1",IF(ISNUMBER(SEARCH("blotched",\$D5)), "1",IF(ISNUMBER(SEARCH("broken",\$D5)), "1",IF(ISNUMBER(SEARCH("crippled",\$D5)), "1",IF(ISNUMBER(SEARCH("damaged",\$D5)), "1",IF(ISNUMBER(SEARCH("false",\$D5)), "1",IF(ISNUMBER(SEARCH("feeble",\$D5)), "1",IF(ISNUMBER(SEARCH("finished",\$D5)), "1",IF(ISNUMBER(SEARCH("flawed",\$D5)), "1",IF(ISNUMBER(SEARCH("helpless",\$D5)), "1",IF(ISNUMBER(SEARCH("impotent",\$D5)), "1",IF(ISNUMBER(SEARCH("inferior",\$D5)), "1",IF(ISNUMBER(SEARCH("invalid",\$D5)), "1",IF(ISNUMBER(SEARCH("powerless",\$D5)), "1",IF(ISNUMBER(SEARCH("useless",\$D5)), "1",IF(ISNUMBER(SEARCH("washed up",\$D5)), "1",IF(ISNUMBER(SEARCH("whipped",\$D5)), "1",IF(ISNUMBER(SEARCH("worthless",\$D5)), "1",IF(ISNUMBER(SEARCH("defeated",\$D5)), "1",IF(ISNUMBER(SEARCH("deficient",\$D5)), "1",IF(ISNUMBER(SEARCH("dopey",\$D5)), "1",IF(ISNUMBER(SEARCH("feeble",\$D5)), "1",IF(ISNUMBER(SEARCH("helpless",\$D5)), "1",IF(ISNUMBER(SEARCH("impaired",\$D5)), "1",IF(ISNUMBER(SEARCH("imperfect",\$D5)), "1",IF(ISNUMBER(SEARCH("incapable",\$D5)), "1",IF(ISNUMBER(SEARCH("incompetent",\$D5)), "1",IF(ISNUMBER(SEARCH("incomplete",\$D5)), "1",IF(ISNUMBER(SEARCH("ineffective",\$D5)), "1",IF(ISNUMBER(SEARCH("inept",\$D5)), "1",IF(ISNUMBER(SEARCH("insignificant",\$D5)), "1",IF(ISNUMBER(SEARCH("meagre",\$D5)), "1",IF(ISNUMBER(SEARCH("puny",\$D5)), "1",IF(ISNUMBER(SEARCH("tenuous",\$D5)), "1",IF(ISNUMBER(SEARCH("wishful",\$D5)), "1",IF(ISNUMBER(SEARCH("lame",\$D5)), "1",IF(ISNUMBER(SEARCH("substandard",\$D5)), "1",IF(ISNUMBER(SEARCH("unimportant",\$D5)), "1","0")) =IF(ISNUMBER(SEARCH("alarmed",\$D5)), "1",IF(ISNUMBER(SEARCH("appalled",\$D5)), "1",IF(ISNUMBER(SEARCH("desperate",\$D5)), "1",IF(ISNUMBER(SEARCH("distressed",\$D5)), "1",IF(ISNUMBER(SEARCH("frightened",\$D5)), "1",IF(ISNUMBER(SEARCH("horrificed",\$D5)), "1",IF(ISNUMBER(SEARCH("intimidated",\$D5)), "1",IF(ISNUMBER(SEARCH("panicky",\$D5)), "1",IF(ISNUMBER(SEARCH("paralysed",\$D5)), "1",IF(ISNUMBER(SEARCH("petrified",\$D5)), "1",IF(ISNUMBER(SEARCH("shocked",\$D5)), "1",IF(ISNUMBER(SEARCH("terrified",\$D5)), "1",IF(ISNUMBER(SEARCH("terror</p>
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Ask_action	=IF(ISNUMBER(SEARCH("comment if",\$D4)), "1", IF(ISNUMBER(SEARCH("like if",\$D4)), "1", IF(ISNUMBER(SEARCH("share if",\$D4)), "1", "0"))
Family Image*	=IF(ISNUMBER(SEARCH("[insertimageID#]",\$H3)), "1", IF(ISNUMBER(SEARCH("[150,5]",\$H3)), "1", IF(ISNUMBER(SEARCH("[insert image ID#]",\$H3)), "1", IF(ISNUMBER(SEARCH("[insert image ID#]",\$H3)), "1", "0"))
Customer Image*	=IF(ISNUMBER(SEARCH("[insertimageID#]",\$H3)), "1", IF(ISNUMBER(SEARCH("[150,5]",\$H3)), "1", IF(ISNUMBER(SEARCH("[insert

	image ID#]", \$H3)), "1", IF(ISNUMBER(SEARCH("[insert image ID#]", \$H3)), "1", "0"))))
Winemaker Image*	=IF(ISNUMBER(SEARCH("[insertimageID#]", \$H3)), "1", IF(ISNUMBER(SEARCH("[150,5]", \$H3)), "1", IF(ISNUMBER(SEARCH("[insert image ID#]", \$H3)), "1", IF(ISNUMBER(SEARCH("[insert image ID#]", \$H3)), "1", "0"))))
Employee Image*	=IF(ISNUMBER(SEARCH("[insertimageID#]", \$H3)), "1", IF(ISNUMBER(SEARCH("[150,5]", \$H3)), "1", IF(ISNUMBER(SEARCH("[insert imageID#]", \$H3)), "1", IF(ISNUMBER(SEARCH("[insert image ID#]", \$H3)), "1", "0"))))
Friends and fans	=IF(ISNUMBER(SEARCH("friends", \$D4)), "1", IF(ISNUMBER(SEARCH("fans", \$D4)), "1", IF(ISNUMBER(SEARCH("customers", \$D4)), "1", IF(ISNUMBER(SEARCH("supporters", \$D4)), "1", "0"))))
Family	=IF(ISNUMBER(SEARCH("brother", \$D4)), "1", IF(ISNUMBER(SEARCH("sister", \$D4)), "1", IF(ISNUMBER(SEARCH("daughter", \$D4)), "1", IF(ISNUMBER(SEARCH("cousin", \$D4)), "1", IF(ISNUMBER(SEARCH("grandfather", \$D4)), "1", IF(ISNUMBER(SEARCH("grandpa", \$D4)), "1", IF(ISNUMBER(SEARCH("pop", \$D4)), "1", IF(ISNUMBER(SEARCH("pa", \$D4)), "1", IF(ISNUMBER(SEARCH("nan", \$D4)), "1", IF(ISNUMBER(SEARCH("grandmother", \$D4)), "1", IF(ISNUMBER(SEARCH("grandma", \$D4)), "1", IF(ISNUMBER(SEARCH("mum", \$D4)), "1", IF(ISNUMBER(SEARCH("mother", \$D4)), "1", IF(ISNUMBER(SEARCH("generation", \$D4)), "1", "0"))))))))))))))))))))

Appendix D: Kappa Coefficient Calculation

Image	Node	Source	Source Size	Kappa
1	animal	Picture [290,5]	280x410 pixels	0.06
2	animal	Picture [401,5]	720x720 pixels	0.62
3	animal	Picture [406,5]	540x720 pixels	0.77
4	celebrity	Picture [6,5]	640x640 pixels	0.69
5	competition	Picture [352,5]	410x410 pixels	0.96
6	competition	Picture [360,5]	410x410 pixels	0.78
7	competition	Picture [377,5]	410x410 pixels	0.90
8	competition	Picture [384,5]	410x410 pixels	0.69
9	competition	Picture [392,5]	410x410 pixels	0.93
10	customer	Picture [20,5]	640x480 pixels	0.58
11	customer	Picture [29,5]	640x640 pixels	0.51
12	customer	Picture [293,5]	640x640 pixels	0.66
13	customer	Picture [338,5]	640x640 pixels	0.53
14	customer	Picture [407,5]	720x480 pixels	0.48
15	customer	Picture [424,5]	720x480 pixels	0.46
16	customer	Picture [425,5]	720x480 pixels	0.62
17	customer	Picture [465,5]	640x640 pixels	0.87
18	customer	Picture [6,5]	640x640 pixels	0.36
19	customer	Picture [66,5]	640x640 pixels	0.48
20	customer	Picture [82,5]	640x640 pixels	0.79
21	customer	Picture [92,5]	720x480 pixels	0.81
22	employee	Picture [173,5]	640x640 pixels	0.60
23	employee	Picture [192,5]	640x640 pixels	0.47
24	employee	Picture [2,5]	640x640 pixels	0.82
25	employee	Picture [369,5]	720x480 pixels	0.73
26	employee	Picture [438,5]	720x720 pixels	0.71
27	employee	Picture [439,5]	720x480 pixels	0.83
28	employee	Picture [6,5]	640x640 pixels	0.85
29	event	Picture [1,5]	460x680 pixels	0.71
30	event	Picture [160,5]	500x720 pixels	0.96
31	event	Picture [24,5]	510x720 pixels	0.73
32	event	Picture [27,5]	720x500 pixels	0.83
33	event	Picture [289,5]	520x720 pixels	0.91
34	event	Picture [52,5]	720x420 pixels	0.76
35	food	Picture [107,5]	640x640 pixels	0.88
36	food	Picture [114,5]	640x640 pixels	0.88
37	food	Picture [173,5]	640x640 pixels	0.54
38	food	Picture [188,5]	640x640 pixels	0.90
39	food	Picture [205,5]	640x640 pixels	0.85
40	food	Picture [230,5]	640x640 pixels	0.59
41	food	Picture [294,5]	640x640 pixels	0.68
42	food	Picture [296,5]	640x640 pixels	0.86
43	food	Picture [460,5]	640x640 pixels	0.85
44	food	Picture [53,5]	640x640 pixels	0.78
45	food	Picture [60,5]	640x640 pixels	0.92
46	food	Picture [69,5]	640x640 pixels	0.96
47	food	Picture [81,5]	640x640 pixels	0.92
48	food	Picture [89,5]	640x640 pixels	0.45
49	food	Picture [400,5]	720x560 pixels	0.93
50	food	Picture [21,5]	640x640 pixels	0.88
51	food	Picture [437,5]	720x720 pixels	0.96
52	fun/interesting fact	Picture [381,5]	720x470 pixels	0.83
53	fun/interesting fact	Picture [451,5]	480x640 pixels	0.96

54	fun/interesting fact	Picture [464,5]	600x240 pixels	0.98
55	fun/interesting fact	Picture [292,5]	640x640 pixels	0.72
56	fun/interesting fact	Picture [316,5]	640x640 pixels	0.98
57	fun/interesting fact	Picture [32,5]	640x640 pixels	0.82
58	fun/interesting fact	Picture [334,5]	640x640 pixels	0.78
59	fun/interesting fact	Picture [348,5]	640x640 pixels	0.83
60	fun/interesting fact	Picture [381,5]	720x470 pixels	0.96
61	fun/interesting fact	Picture [405,5]	220x320 pixels	0.93
62	fun/interesting fact	Picture [414,5]	390x430 pixels	0.93
63	fun/interesting fact	Picture [435,5]	480x640 pixels	0.70
64	meme_cartoon	Picture [341,5]	640x640 pixels	0.90
65	meme_cartoon	Picture [447,5]	270x190 pixels	0.87
66	product	Picture [326,5]	720x720 pixels	0.86
67	product	Picture [152,5]	640x640 pixels	0.87
68	product	Picture [29,5]	640x640 pixels	0.69
69	product	Picture [295,5]	640x640 pixels	0.84
70	product	Picture [301,5]	640x640 pixels	0.74
71	product	Picture [313,5]	640x640 pixels	0.81
72	product	Picture [319,5]	640x640 pixels	0.90
73	product	Picture [359,5]	640x640 pixels	0.93
74	product	Picture [431,5]	520x520 pixels	0.80
75	product	Picture [438,5]	720x720 pixels	0.80
76	product	Picture [453,5]	410x310 pixels	0.83
77	product	Picture [460,5]	640x640 pixels	0.84
78	product	Picture [82,5]	640x640 pixels	0.74
79	review_award	Picture [192,5]	640x640 pixels	0.93
80	review_award	Picture [241,5]	640x640 pixels	0.73
81	review_award	Picture [298,5]	300x120 pixels	0.89
82	review_award	Picture [342,5]	540x640 pixels	0.86
83	scenic	Picture [471,5]	720x380 pixels	0.89
84	vineyard	Picture [190,5]	640x640 pixels	0.94
85	vineyard	Picture [25,5]	640x480 pixels	0.87
86	vineyard	Picture [293,5]	640x640 pixels	0.71
87	vineyard	Picture [338,5]	640x640 pixels	0.84
88	vineyard	Picture [448,5]	500x650 pixels	0.83
89	vineyard	Picture [82,5]	640x640 pixels	0.66
90	winery	Picture [12,5]	720x370 pixels	0.91
91	winery	Picture [126,5]	640x640 pixels	0.78
92	winery	Picture [136,5]	640x640 pixels	0.86
93	winery	Picture [173,5]	640x640 pixels	0.48
94	winery	Picture [179,5]	640x640 pixels	0.88
95	winery	Picture [211,5]	560x720 pixels	0.78
96	winery	Picture [212,5]	720x480 pixels	0.80
97	winery	Picture [213,5]	720x450 pixels	0.89
98	winery	Picture [228,5]	640x640 pixels	-0.12
99	winery	Picture [274,5]	640x640 pixels	0.91
100	winery	Picture [29,5]	640x640 pixels	0.85
Mean				0.77
Median				0.83

Appendix E: Binary Logistic Regression Results (Interactions)

Appendix E.1. Logistic regression results showing effect of content interactions on CREATING SMEB

SMEB	Interaction	b	Sig	Exp(B)
Creating behaviour	Entertainment (1) by Information (1)	-.771	.009	.463
	Entertainment (1) by Information (2)	-.484	.121	.617
	Entertainment (1) by Information (3)	-.537	.125	.585
	Entertainment (1) by Information (4)	-1.194	.002	.303
	Entertainment (1) by Information (5)	-1.427	.004	.240
	Entertainment (1) by Information (6)	-.851	.250	.427
	Entertainment (1) by Information (7)	-1.592	.102	.204
	Entertainment (1) by Information (8)	-3.288	.044	.037
	Entertainment (1) by Information (9)	20.514	1.000	811204446.677
	Entertainment (1) by Information (10)	-21.779	1.000	.000
	Entertainment (1) by Information (11)	-21.249	1.000	.000
	Entertainment (2) by Information (1)	-.096	.821	.908
	Entertainment (2) by Information (2)	.043	.922	1.044
	Entertainment (2) by Information (3)	-.122	.802	.885
	Entertainment (2) by Information (4)	-.814	.140	.443
	Entertainment (2) by Information (5)	-.623	.318	.536
	Entertainment (2) by Information (6)	-.622	.516	.537
	Entertainment (2) by Information (7)	-1.060	.382	.346
	Entertainment (2) by Information (9)	-21.792	1.000	.000
	Entertainment (3) by Information (1)	-1.270	.189	.281
	Entertainment (3) by Information (2)	-.657	.559	.518
	Entertainment (3) by Information (3)	-1.184	.285	.306
	Entertainment (3) by Information (4)	-1.687	.125	.185
	Entertainment (3) by Information (5)	-1.126	.448	.324
	Entertainment (3) by Information (6)	-23.612	1.000	.000
	Entertainment (3) by Information (7)	18.312	1.000	89715073.346
	Entertainment (3) by Information (9)	19.464	1.000	283965469.173
	Entertainment (4) by Information (1)	41.585	.999	4058346530.000
	Entertainment (4) by Information (2)	20.496	1.000	796640413.821
	Entertainment (4) by Information (3)	21.414	1.000	1995287943.194
	Entertainment (4) by Information (4)	40.876	.999	0890183040.000
	Entertainment (4) by Information (5)	19.467	1.000	284768480.040
	Entertainment (5) by Information (2)	21.447	.999	2061924092.082
	Entertainment (5) by Information (6)	20.720	1.000	997229921.602
	Remunerative (1) by Information (1)	-.056	.913	.945
	Remunerative (2) by Information (1)	20.921	.999	1218518809.291
	Remunerative (3) by Information (1)	-21.534	1.000	.000
	Remunerative (1) by Information (2)	.123	.807	1.131
	Remunerative (2) by Information (2)	22.820	.999	8139521364.930
	Remunerative (3) by Information (2)	-21.236	1.000	.000
Remunerative (1) by Information (3)	.103	.853	1.108	
Remunerative (2) by Information (3)	20.409	.999	730052762.602	
Remunerative (1) by Information (4)	.326	.573	1.385	
Remunerative (2) by Information (4)	21.222	.999	1646651799.617	

Remunerative (1) by Information (5)	.370	.540	1.448
Remunerative (2) by Information (5)	21.794	.999	2917578857.558
Remunerative (3) by Information (5)	21.086	1.000	1437922889.289
Remunerative (1) by Information (6)	.537	.586	1.711
Remunerative (2) by Information (6)	20.372	.999	703551923.446
Remunerative (1) by Information (7)	-1.071	.297	.343
Remunerative (2) by Information (7)	21.089	.999	1441711487.591
Remunerative (1) by Information (8)	-22.729	.999	.000
Remunerative (2) by Information (8)	40.502	.999	3925934530.000
Remunerative (4) by Information (8)	-22.327	1.000	.000
Remunerative (1) by Information (9)	-21.380	.999	.000
Remunerative (2) by Information (9)	-21.504	1.000	.000
Remunerative (1) by Information (10)	-42.431	.999	.000
Relational (1) by Information (1)	-.015	.960	.985
Relational (2) by Information (1)	-.087	.820	.917
Relational (3) by Information (1)	-.227	.734	.797
Relational (4) by Information (1)	.265	.824	1.303
Relational (1) by Information (1)	-20.983	1.000	.000
Relational (1) by Information (2)	.259	.435	1.295
Relational (2) by Information (2)	-.104	.796	.902
Relational (3) by Information (2)	-.733	.283	.480
Relational (4) by Information (2)	-.539	.642	.583
Relational (5) by Information (2)	-20.248	1.000	.000
Relational (1) by Information (3)	-.018	.962	.982
Relational (2) by Information (3)	-.339	.454	.712
Relational (3) by Information (3)	-1.368	.062	.255
Relational (4) by Information (3)	-.382	.755	.682
Relational (5) by Information (3)	-21.890	1.000	.000
Relational (6) by Information (3)	-.907	.471	.404
Relational (1) by Information (4)	-.044	.918	.957
Relational (2) by Information (4)	-.128	.794	.880
Relational (3) by Information (4)	-.748	.339	.473
Relational (4) by Information (4)	-.806	.531	.447
Relational (5) by Information (4)	-22.788	1.000	.000
Relational (1) by Information (5)	-.103	.872	.902
Relational (2) by Information (5)	-1.048	.103	.351
Relational (3) by Information (5)	-1.969	.135	.140
Relational (4) by Information (5)	-.311	.827	.733
Relational (5) by Information (5)	-23.543	1.000	.000
Relational (7) by Information (5)	20.747	1.000	1024173452.320
Relational (1) by Information (6)	1.655	.189	5.231
Relational (2) by Information (6)	.153	.913	1.166
Relational (3) by Information (6)	21.124	.999	1492898486.423
Relational (4) by Information (6)	22.000	.999	3583349865.029
Relational (5) by Information (6)	.835	1.000	2.306
Relational (6) by Information (6)	1.001	.585	2.721
Relational (1) by Information (7)	-.261	.823	.770
Relational (2) by Information (7)	.134	.917	1.143
Relational (3) by Information (7)	-1.019	.439	.361
Relational (4) by Information (7)	20.493	.999	794037046.922
Relational (5) by Information (7)	-.740	1.000	.477
Relational (1) by Information (8)	1.036	.405	2.818

Relational (2) by Information (8)	-.616	.626	.540
Relational (3) by Information (8)	20.821	1.000	1102575070.980
Relational (4) by Information (8)	21.668	1.000	2572305642.047
Relational (6) by Information (8)	-20.444	1.000	.000
Relational (1) by Information (9)	21.522	1.000	2223434339.096
Relational (2) by Information (9)	-.289	.843	.749
Relational (3) by Information (9)	-21.651	1.000	.000
Relational (4) by Information (9)	21.205	1.000	1618533567.831
Relational (2) by Information (10)	-42.981	.999	.000
Relational (3) by Information (10)	-43.363	.999	.000
Entertainment(1) By Relational(1)	.220	.357	1.247
Entertainment(1) By Relational(2)	-.347	.198	.707
Entertainment(1) By Relational(3)	.457	.262	1.579
Entertainment(1) By Relational(4)	-1.121	.064	.326
Entertainment(1) By Relational(5)	-1.431	.281	.239
Entertainment(1) By Relational(6)	-.612	.491	.542
Entertainment(2) By Relational(1)	-.217	.529	.805
Entertainment(2) By Relational(2)	-.935	.012	.392
Entertainment(2) By Relational(3)	.041	.934	1.042
Entertainment(2) By Relational(4)	-.904	.258	.405
Entertainment(2) By Relational(5)	-1.260	.378	.284
Entertainment(2) By Relational(7)	21.110	1.000	1472026196.930
Entertainment(3) By Relational(1)	1.863	.013	6.441
Entertainment(3) By Relational(2)	.572	.446	1.773
Entertainment(3) By Relational(3)	1.050	.309	2.858
Entertainment(3) By Relational(4)	21.106	.999	1466610850.838
Entertainment(3) By Relational(5)	-1.335	.477	.263
Entertainment(4) By Relational(1)	20.978	.999	1289909361.940
Entertainment(4) By Relational(2)	.152	.919	1.165
Entertainment(4) By Relational(3)	1.448	.301	4.255
Entertainment(5) By Relational(1)	21.557	1.000	2300994335.269
Entertainment(5) By Relational(2)	20.902	1.000	1195502793.450
Entertainment(5) By Relational(3)	21.651	1.000	2528984142.325
Entertainment(1) By Remunerative(1)	-.605	.057	.546
Entertainment(1) By Remunerative(2)	.190	.773	1.209
Entertainment(1) By Remunerative(3)	42.440	.999	5032539100.000
Entertainment(2) By Remunerative(1)	-.271	.487	.763
Entertainment(2) By Remunerative(2)	.634	.476	1.884
Entertainment(3) By Remunerative(1)	20.396	.999	720660656.928
Entertainment(3) By Remunerative(2)	20.648	1.000	927585820.260
Entertainment(4) By Remunerative(1)	19.903	.999	440504729.752
Entertainment(5) By Remunerative(1)	-.419	1.000	.658
Relational(1) By Remunerative(1)	.072	.849	1.075
Relational(1) By Remunerative(2)	.007	.991	1.007
Relational(2) By Remunerative(1)	-.206	.618	.814
Relational(2) By Remunerative(2)	-.062	.929	.940
Relational(2) By Remunerative(3)	-21.585	.999	.000
Relational(2) By Remunerative(4)	-20.935	1.000	.000
Relational(3) By Remunerative(1)	-.289	.552	.749
Relational(3) By Remunerative(2)	.252	.806	1.287
Relational(3) By Remunerative(3)	20.916	1.000	1212183296.915
Relational(4) By Remunerative(1)	1.518	.190	4.561

	Relational(4) By Remunerative(2)	-.884	.516	.413
	Relational(5) By Remunerative(1)	20.832	.999	1115051199.143
	Relational(6) By Remunerative(1)	-20.510	1.000	.000
	Relational(7) By Remunerative(2)	21.499	1.000	2173190758.023

Appendix E.2. Logistic regression results showing effect of content interactions and CONTRIBUTING (SHARES) SMEB

SMEB	Interaction	b	Sig	Exp(B)
Contributing behaviour (shares)	Entertainment (1) by Information (1)	-.430	.328	.650
	Entertainment (1) by Information (2)	.006	.989	1.006
	Entertainment (1) by Information (3)	-.213	.746	.808
	Entertainment (1) by Information (4)	-0.90	.021	.401
	Entertainment (1) by Information (5)	17.049	.998	25365590.234
	Entertainment (1) by Information (6)	-.268	1.000	.765
	Entertainment (1) by Information (7)	-.651	1.000	.521
	Entertainment (2) by Information (1)	-.990	.289	.372
	Entertainment (2) by Information (2)	-.190	.858	.827
	Entertainment (2) by Information (3)	-.614	.640	.541
	Entertainment (2) by Information (4)	15.743	.998	6871292.316
	Entertainment (2) by Information (5)	15.651	.998	6268298.901
	Entertainment (2) by Information (6)	-1.200	1.000	.301
	Entertainment (2) by Information (7)	-1.615	1.000	.199
	Entertainment (3) by Information (1)	-20.837	.999	.000
	Entertainment (3) by Information (2)	-1.042	1.000	.353
	Entertainment (3) by Information (3)	-1.422	1.000	.241
	Entertainment (3) by Information (4)	-2.893	1.000	.055
	Entertainment (3) by Information (5)	-3.062	1.000	.047
	Entertainment (3) by Information (6)	-19.988	1.000	.000
	Entertainment (3) by Information (7)	-20.407	1.000	.000
	Entertainment (4) by Information (1)	-.922	1.000	.398
	Entertainment (4) by Information (2)	-20.677	1.000	.000
	Entertainment (4) by Information (3)	-.721	1.000	.486
	Entertainment (4) by Information (4)	-1.117	1.000	.327
	Entertainment (4) by Information (5)	-1.609	1.000	.200
	Entertainment (5) by Information (2)	19.851	.999	417948960.164
	Entertainment (5) by Information (6)	.283	1.000	1.327
	Information(1) By Remunerative(1)	.517	.339	1.677
	Information(1) By Remunerative(2)	1.320	.353	3.742
	Information(1) By Remunerative(3)	-20.963	1.000	.000
	Information(2) By Remunerative(1)	.809	.128	2.247
	Information(2) By Remunerative(2)	.988	.494	2.685
	Information(2) By Remunerative(3)	-21.171	1.000	.000
	Information(3) By Remunerative(1)	.666	.253	1.947
	Information(3) By Remunerative(2)	.259	.847	1.296
	Information(4) By Remunerative(1)	.019	.974	1.020
	Information(4) By Remunerative(2)	.868	.540	2.383
	Information(5) By Remunerative(1)	.534	.394	1.705
	Information(5) By Remunerative(2)	.907	.546	2.476
	Information(5) By Remunerative(3)	-21.471	1.000	.000
	Information(6) By Remunerative(1)	1.125	.258	3.081
Information(6) By Remunerative(2)	21.358	.999	1886907904.100	
Information(7) By Remunerative(1)	.171	.873	1.186	
Information(7) By Remunerative(2)	20.662	.999	940632528.112	
Information(8) By Remunerative(1)	-22.270	.999	.000	
Information(8) By Remunerative(2)	-22.630	1.000	.000	

Information(8) By Remunerative(4)	19.882	1.000	430963907.721
Information(9) By Remunerative(1)	.173	.933	1.188
Information(9) By Remunerative(2)	-21.390	1.000	.000
Information(10) By Remunerative(1)	.127	1.000	1.136
Information(1) By Relational(1)	.090	.777	1.094
Information(1) By Relational(2)	-.716	.04	.488
Information(1) By Relational(3)	-.312	.637	.732
Information(1) By Relational(4)	21.425	.999	2016353213.212
Information(1) By Relational(5)	-.496	1.000	.609
Information(2) By Relational(1)	.462	.179	1.588
Information(2) By Relational(2)	-.478	.243	.620
Information(2) By Relational(3)	.277	.685	1.320
Information(2) By Relational(4)	20.076	.999	523733854.554
Information(2) By Relational(5)	20.413	1.000	733385357.463
Information(3) By Relational(1)	.321	.412	1.379
Information(3) By Relational(2)	-.262	.568	.770
Information(3) By Relational(3)	.658	.375	1.931
Information(3) By Relational(4)	20.539	.999	831318578.002
Information(3) By Relational(5)	42.109	.999	1513532160.000
Information(3) By Relational(6)	-21.009	.999	.000
Information(4) By Relational(1)	.020	.965	1.020
Information(4) By Relational(2)	-.552	.267	.576
Information(4) By Relational(3)	.577	.483	1.780
Information(4) By Relational(4)	20.470	.999	776182902.512
Information(4) By Relational(5)	19.174	1.000	212347462.754
Information(5) By Relational(1)	-.294	.644	.745
Information(5) By Relational(2)	-.869	.180	.419
Information(5) By Relational(3)	-.322	.733	.724
Information(5) By Relational(4)	20.480	.999	784207042.220
Information(5) By Relational(5)	18.607	1.000	120441271.026
Information(5) By Relational(7)	20.559	1.000	848242512.026
Information(6) By Relational(1)	.650	.563	1.915
Information(6) By Relational(2)	-1.604	.232	.201
Information(6) By Relational(3)	.123	.947	1.130
Information(6) By Relational(4)	21.528	.999	2235148173.166
Information(6) By Relational(5)	20.647	1.000	926456750.517
Information(6) By Relational(6)	21.148	.999	1528696840.379
Information(7) By Relational(1)	-21.405	.999	.000
Information(7) By Relational(2)	-20.033	.999	.000
Information(7) By Relational(3)	-20.440	.999	.000
Information(7) By Relational(4)	-.748	1.000	.473
Information(7) By Relational(5)	-1.513	1.000	.220
Information(8) By Relational(1)	.154	.902	1.166
Information(8) By Relational(2)	1.039	.409	2.826
Information(8) By Relational(3)	21.946	1.000	3398012563.561
Information(8) By Relational(4)	42.261	.999	1221987070.000
Information(8) By Relational(6)	-19.812	1.000	.000
Information(9) By Relational(1)	-20.529	1.000	.000
Information(9) By Relational(2)	.075	.959	1.078
Information(9) By Relational(3)	-20.434	1.000	.000
Information(9) By Relational(4)	42.545	.999	8330573300.000
Information(10) By Relational(2)	-.739	1.000	.478

Information(10) By Relational(3)	-.035	1.000	.966
Entertainment(1) By Relational(1)	.262	.276	1.300
Entertainment(1) By Relational(2)	.126	.643	1.134
Entertainment(1) By Relational(3)	.405	.322	1.500
Entertainment(1) By Relational(4)	.114	.847	1.121
Entertainment(1) By Relational(5)	-.501	.670	.606
Entertainment(1) By Relational(6)	-.394	.660	.675
Entertainment(2) By Relational(1)	.307	.369	1.360
Entertainment(2) By Relational(2)	-.028	.939	.972
Entertainment(2) By Relational(3)	1.470	.935	4.349
Entertainment(2) By Relational(4)	.086	.912	1.090
Entertainment(2) By Relational(5)	.127	.917	1.135
Entertainment(2) By Relational(7)	21.512	1.000	2201126659.893
Entertainment(3) By Relational(1)	.372	.581	1.450
Entertainment(3) By Relational(2)	1.661	.067	5.265
Entertainment(3) By Relational(3)	1.472	.229	4.357
Entertainment(3) By Relational(4)	20.926	.999	1224148851.646
Entertainment(3) By Relational(5)	-21.695	.999	.000
Entertainment(4) By Relational(1)	.390	.816	1.478
Entertainment(4) By Relational(2)	-.263	.863	.769
Entertainment(4) By Relational(3)	2.362	.099	10.613
Entertainment(5) By Relational(1)	21.421	1.000	2009808964.911
Entertainment(5) By Relational(2)	21.535	1.000	2250990891.306
Entertainment(5) By Relational(3)	21.772	1.000	2853507358.773
Entertainment(1) By Remunerative(1)	.149	.641	1.160
Entertainment(1) By Remunerative(2)	-.770	.239	.463
Entertainment(1) By Remunerative(3)	-.035	1.000	.966
Entertainment(2) By Remunerative(1)	.653	.110	1.921
Entertainment(2) By Remunerative(2)	-.043	.961	.957
Entertainment(3) By Remunerative(1)	-.631	.622	.532
Entertainment(3) By Remunerative(2)	19.214	1.000	221140991.037
Entertainment(4) By Remunerative(1)	-.687	.655	.503
Entertainment(5) By Remunerative(1)	-.553	1.000	.575
Relational(1) By Remunerative(1)	-.104	.785	.901
Relational(1) By Remunerative(2)	.561	.446	1.753
Relational(2) By Remunerative(1)	-.155	.708	.856
Relational(2) By Remunerative(2)	-.248	.724	.780
Relational(2) By Remunerative(3)	-21.206	.999	.000
Relational(2) By Remunerative(4)	21.560	1.000	2309593774.072
Relational(3) By Remunerative(1)	-.627	.197	.534
Relational(3) By Remunerative(2)	.885	.472	2.424
Relational(3) By Remunerative(3)	-21.328	1.000	.000
Relational(4) By Remunerative(1)	1.313	.257	3.719
Relational(4) By Remunerative(2)	-1.170	.392	.310
Relational(5) By Remunerative(1)	-.264	.809	.768
Relational(6) By Remunerative(1)	-20.590	1.000	.000
Relational(7) By Remunerative(2)	20.952	1.000	1256481593.414

Appendix E.3. Logistic regression results showing effect of content interactions on CONTRIBUTING (LIKES) SMEB

SMEB	Interaction	b	Sig	Exp(B)
Contributing behaviour (likes)	Entertainment (1) by Information (1)	-.430	.328	.650
	Entertainment (1) by Information (2)	.006	.989	1.006
	Entertainment (1) by Information (3)	-.213	.746	.808
	Entertainment (1) by Information (4)	-1.044	.287	.352
	Entertainment (1) by Information (5)	17.049	.998	25365590.234
	Entertainment (2) by Information (1)	-.990	.289	.372
	Entertainment (2) by Information (2)	-.190	.858	.827
	Entertainment (2) by Information (3)	-.614	.640	.541
	Entertainment (2) by Information (4)	15.743	.998	6871292.316
	Entertainment (2) by Information (5)	15.651	.998	6268298.901
	Entertainment (3) by Information (1)	-20.837	.999	.000
	Entertainment (3) by Information (2)	-1.042	1.000	.353
	Entertainment (3) by Information (3)	-1.422	1.000	.241
	Entertainment (3) by Information (4)	-2.893	1.000	.055
	Entertainment (3) by Information (5)	-3.062	1.000	.047
	Entertainment (4) by Information (1)	-.922	1.000	.398
	Entertainment (4) by Information (2)	-20.677	1.000	.000
	Entertainment (4) by Information (3)	-.721	1.000	.486
	Entertainment (4) by Information (4)	-1.117	1.000	.327
	Entertainment (4) by Information (5)	-1.609	1.000	.200
	Entertainment (5) by Information (2)	19.851	.999	417948960.164
	Information(1) By Remunerative(1)	.517	.339	1.677
	Information(1) By Remunerative(2)	1.320	.353	3.742
	Information(1) By Remunerative(3)	-20.963	1.000	.000
	Information(2) By Remunerative(1)	.809	.128	2.247
	Information(2) By Remunerative(2)	.988	.494	2.685
	Information(2) By Remunerative(3)	-21.171	1.000	.000
	Information(3) By Remunerative(1)	.666	.253	1.947
	Information(3) By Remunerative(2)	.259	.847	1.296
	Information(4) By Remunerative(1)	.019	.974	1.020
	Information(4) By Remunerative(2)	.868	.540	2.383
	Information(5) By Remunerative(1)	.534	.394	1.705
	Information(5) By Remunerative(2)	.907	.546	2.476
	Information(5) By Remunerative(3)	-21.471	1.000	.000
	Information(6) By Remunerative(1)	1.125	.258	3.081
	Information(6) By Remunerative(2)	21.358	.999	1886907904.100
	Information(7) By Remunerative(1)	.171	.873	1.186
	Information(7) By Remunerative(2)	20.662	.999	940632528.112
	Information(8) By Remunerative(1)	-22.270	.999	.000
	Information(8) By Remunerative(2)	-22.630	1.000	.000
	Information(8) By Remunerative(4)	19.882	1.000	430963907.721
	Information(9) By Remunerative(1)	.173	.933	1.188
Information(9) By Remunerative(2)	-21.390	1.000	.000	
Information(10) By Remunerative(1)	.127	1.000	1.136	
Information(1) By Relational(1)	.090	.777	1.094	
Information(1) By Relational(2)	-.716	.065	.488	
Information(1) By Relational(3)	-.312	.637	.732	

Information(1) By Relational(4)	21.425	.999	2016353213.212
Information(1) By Relational(5)	-.496	1.000	.609
Information(2) By Relational(1)	.462	.179	1.588
Information(2) By Relational(2)	-.478	.243	.620
Information(2) By Relational(3)	.277	.685	1.320
Information(2) By Relational(4)	20.076	.999	523733854.554
Information(2) By Relational(5)	20.413	1.000	733385357.463
Information(3) By Relational(1)	.321	.412	1.379
Information(3) By Relational(2)	-.262	.568	.770
Information(3) By Relational(3)	.658	.375	1.931
Information(3) By Relational(4)	20.539	.999	831318578.002
Information(3) By Relational(5)	42.109	.999	1939932160.000
Information(3) By Relational(6)	-21.009	.999	.000
Information(4) By Relational(1)	.020	.965	1.020
Information(4) By Relational(2)	-.552	.267	.576
Information(4) By Relational(3)	.577	.483	1.780
Information(4) By Relational(4)	20.470	.999	776182902.512
Information(4) By Relational(5)	19.174	1.000	212347462.754
Information(5) By Relational(1)	-.294	.644	.745
Information(5) By Relational(2)	-.869	.180	.419
Information(5) By Relational(3)	-.322	.733	.724
Information(5) By Relational(4)	20.480	.999	784207042.220
Information(5) By Relational(5)	18.607	1.000	120441271.026
Information(5) By Relational(7)	20.559	1.000	848242512.026
Information(6) By Relational(1)	.650	.563	1.915
Information(6) By Relational(2)	-1.604	.232	.201
Information(6) By Relational(3)	.123	.947	1.130
Information(6) By Relational(4)	21.528	.999	2235148173.166
Information(6) By Relational(5)	20.647	1.000	926456750.517
Information(6) By Relational(6)	21.148	.999	1528696840.379
Information(7) By Relational(1)	-21.405	.999	.000
Information(7) By Relational(2)	-20.033	.999	.000
Information(7) By Relational(3)	-20.440	.999	.000
Information(7) By Relational(4)	-.748	1.000	.473
Information(7) By Relational(5)	-1.513	1.000	.220
Information(8) By Relational(1)	.154	.902	1.166
Information(8) By Relational(2)	1.039	.409	2.826
Information(8) By Relational(3)	21.946	1.000	3398012563.561
Information(8) By Relational(4)	42.261	.999	2258087070.000
Information(8) By Relational(6)	-19.812	1.000	.000
Information(9) By Relational(1)	-20.529	1.000	.000
Information(9) By Relational(2)	.075	.959	1.078
Information(9) By Relational(3)	-20.434	1.000	.000
Information(9) By Relational(4)	42.545	.999	2998480300.000
Information(10) By Relational(2)	-.739	1.000	.478
Information(10) By Relational(3)	-.035	1.000	.966
Entertainment(1) By Relational(1)	.510	.218	1.665
Entertainment(1) By Relational(2)	-.567	.245	.567
Entertainment(1) By Relational(3)	.091	.913	1.096
Entertainment(1) By Relational(4)	-.485	.742	.616
Entertainment(1) By Relational(5)	-.309	1.000	.734
Entertainment(1) By Relational(6)	19.040	.999	185687176.039

Entertainment(2) By Relational(1)	-.068	.934	.935
Entertainment(2) By Relational(2)	.070	.953	1.073
Entertainment(2) By Relational(3)	17.426	.998	36973093.888
Entertainment(2) By Relational(4)	-2.622	.098	.073
Entertainment(2) By Relational(5)	-.969	1.000	.380
Entertainment(2) By Relational(7)	19.408	1.000	268367406.485
Entertainment(3) By Relational(1)	.692	.577	1.997
Entertainment(3) By Relational(2)	18.159	.999	77013588.058
Entertainment(3) By Relational(3)	18.468	.999	104875326.101
Entertainment(3) By Relational(4)	17.928	.999	61088986.07
Entertainment(3) By Relational(5)	-.805	1.000	.447
Entertainment(4) By Relational(1)	18.972	.999	173576131.543
Entertainment(4) By Relational(2)	18.783	.999	143726600.720
Entertainment(4) By Relational(3)	18.822	.999	149443166.801
Entertainment(5) By Relational(1)	19.038	1.000	185314080.521
Entertainment(5) By Relational(2)	18.741	1.000	137750631.092
Entertainment(5) By Relational(3)	19.664	1.000	346762256.487
Entertainment(1) By Remunerative(1)	-.909	.125	.403
Entertainment(1) By Remunerative(2)	17.108	.999	26910700.667
Entertainment(1) By Remunerative(3)	1.330	1.000	3.783
Entertainment(2) By Remunerative(1)	17.298	.998	32539977.736
Entertainment(2) By Remunerative(2)	16.630	.999	16682424.378
Entertainment(3) By Remunerative(1)	17.585	.999	43336539.807
Entertainment(3) By Remunerative(2)	17.053	1.000	25468628.371
Entertainment(4) By Remunerative(1)	17.464	1.000	38421500.162
Entertainment(5) By Remunerative(1)	-1.522	1.000	.218
Relational(1) By Remunerative(1)	1.548	.041	4.700
Relational(1) By Remunerative(2)	-18.590	.998	.000
Relational(2) By Remunerative(1)	.340	.659	1.405
Relational(2) By Remunerative(2)	-.425	1.000	.654
Relational(2) By Remunerative(3)	17.493	1.000	39529477.377
Relational(2) By Remunerative(4)	19.317	1.000	244953008.929
Relational(3) By Remunerative(1)	-.065	.947	.937
Relational(3) By Remunerative(2)	-.692	1.000	.500
Relational(3) By Remunerative(3)	18.680	1.000	129598517.55
Relational(4) By Remunerative(1)	18.635	.999	123867843.175
Relational(4) By Remunerative(2)	-.220	1.000	.803
Relational(5) By Remunerative(1)	.350	1.000	1.419
Relational(6) By Remunerative(1)	1.130	1.000	3.095
Relational(7) By Remunerative(2)	1.496	1.000	4.464

Appendix E.4. Logistic regression results showing effect of content interactions on CONSUMING SMEB.

SMEB	Interaction	b	Sig	Exp(B)
Consuming behaviour	Entertainment (1) by Information (1)	-.195	.849	.823
	Entertainment (1) by Information (2)	.397	.719	1.488
	Entertainment (1) by Information (3)	.356	.800	1.428
	Entertainment (1) by Information (4)	-16.646	.997	.000
	Entertainment (1) by Information (5)	.244	1.000	1.277
	Entertainment (1) by Information (6)	.342	1.000	1.408
	Entertainment (1) by Information (7)	.268	1.000	1.308
	Entertainment (1) by Information (8)	.263	1.000	1.301
	Entertainment (1) by Information (9)	-.026	1.000	.975
	Entertainment (1) by Information (10)	-.333	1.000	.717
	Entertainment (1) by Information (11)	17.448	1.000	37815558.801
	Entertainment (2) by Information (1)	-1.201	.401	.301
	Entertainment (2) by Information (2)	-1.125	.435	.325
	Entertainment (2) by Information (3)	16.569	.998	15703909.770
	Entertainment (2) by Information (4)	-.308	1.000	.735
	Entertainment (2) by Information (5)	-.195	1.000	.823
	Entertainment (2) by Information (6)	.038	1.000	1.039
	Entertainment (2) by Information (7)	-.522	1.000	.593
	Entertainment (2) by Information (9)	-.868	1.000	.420
	Entertainment (3) by Information (1)	-18.938	.999	.000
	Entertainment (3) by Information (2)	-.414	1.000	.661
	Entertainment (3) by Information (3)	-.409	1.000	.664
	Entertainment (3) by Information (4)	-17.341	.999	.000
	Entertainment (3) by Information (5)	-17.651	.999	.000
	Entertainment (3) by Information (6)	-35.038	.999	.000
	Entertainment (3) by Information (7)	-17.553	1.000	.000
	Entertainment (3) by Information (9)	-18.102	1.000	.000
	Entertainment (4) by Information (1)	-.568	1.000	.567
	Entertainment (4) by Information (2)	-1.664	1.000	.189
	Entertainment (4) by Information (3)	-.579	1.000	.560
	Entertainment (4) by Information (4)	-16.845	1.000	.000
	Entertainment (4) by Information (5)	-16.970	1.000	.000
	Entertainment (5) by Information (2)	17.274	.999	31766637.247
	Entertainment (5) by Information (6)	-.232	1.000	.793
	Information(1) By Remunerative(1)	18.681	.997	129674677.870
	Information(1) By Remunerative(2)	.190	1.000	1.209
	Information(1) By Remunerative(3)	15.858	1.000	7707246.835
	Information(2) By Remunerative(1)	19.049	.997	187537688.763
	Information(2) By Remunerative(2)	.707	1.000	2.028
	Information(2) By Remunerative(3)	16.049	1.000	9332595.986
	Information(3) By Remunerative(1)	18.588	.998	118191845.404
	Information(3) By Remunerative(2)	.283	1.000	1.328
Information(4) By Remunerative(1)	17.813	.998	54454583.815	
Information(4) By Remunerative(2)	-.987	1.000	.373	
Information(5) By Remunerative(1)	1.848	1.000	6.347	
Information(5) By Remunerative(2)	-16.721	1.000	.000	
Information(5) By Remunerative(3)	-.699	1.000	.497	

Information(6) By Remunerative(1)	1.424	1.000	4.154
Information(6) By Remunerative(2)	-17.137	1.000	.000
Information(7) By Remunerative(1)	1.366	1.000	3.920
Information(7) By Remunerative(2)	-16.644	1.000	.000
Information(8) By Remunerative(1)	1.333	1.000	3.791
Information(8) By Remunerative(2)	-16.325	1.000	.000
Information(8) By Remunerative(4)	-1.429	1.000	.240
Information(9) By Remunerative(1)	1.887	1.000	6.603
Information(9) By Remunerative(2)	-17.114	1.000	.000
Information(10) By Remunerative(1)	.872	1.000	2.391
Information(1) By Relational(1)	-1.223	.260	.294
Information(1) By Relational(2)	-17.769	.997	.000
Information(1) By Relational(3)	17.954	.997	62719604.481
Information(1) By Relational(4)	-1.161	1.000	.313
Information(1) By Relational(5)	-1.878	1.000	.153
Information(2) By Relational(1)	.154	.895	1.167
Information(2) By Relational(2)	.185	1.000	1.203
Information(2) By Relational(3)	18.862	.998	155501741.794
Information(2) By Relational(4)	-.294	1.000	.745
Information(2) By Relational(5)	-.756	1.000	.469
Information(3) By Relational(1)	-.284	.849	.753
Information(3) By Relational(2)	-.203	1.000	.817
Information(3) By Relational(3)	18.376	.998	95606034.041
Information(3) By Relational(4)	-.588	1.000	.555
Information(3) By Relational(5)	-1.284	1.000	.277
Information(3) By Relational(6)	16.976	.999	23571316.746
Information(4) By Relational(1)	-1.545	1.000	.213
Information(4) By Relational(2)	-35.160	.996	.000
Information(4) By Relational(3)	.894	1.000	2.444
Information(4) By Relational(4)	-18.412	.999	.000
Information(4) By Relational(5)	-19.002	1.000	.000
Information(5) By Relational(1)	-1.094	1.000	.335
Information(5) By Relational(2)	-17.636	.999	.000
Information(5) By Relational(3)	1.585	1.000	4.877
Information(5) By Relational(4)	-18.017	.999	.000
Information(5) By Relational(5)	-18.597	1.000	.000
Information(5) By Relational(7)	1.576	1.000	4.837
Information(6) By Relational(1)	-.997	1.000	.369
Information(6) By Relational(2)	-18.018	.999	.000
Information(6) By Relational(3)	.880	1.000	2.410
Information(6) By Relational(4)	-17.943	1.000	.000
Information(6) By Relational(5)	-19.020	1.000	.000
Information(6) By Relational(6)	-1.168	1.000	.311
Information(7) By Relational(1)	-.902	1.000	.406
Information(7) By Relational(2)	-18.012	.999	.000
Information(7) By Relational(3)	.573	1.000	1.774
Information(7) By Relational(4)	-18.515	1.000	.000
Information(7) By Relational(5)	-19.133	1.000	.000
Information(8) By Relational(1)	17.302	.999	32656415.652
Information(8) By Relational(2)	-.280	1.000	.756
Information(8) By Relational(3)	19.614	1.000	329817069.544
Information(8) By Relational(4)	-1.010	1.000	.364

Information(8) By Relational(6)	18.394	1.000	97403883.825
Information(9) By Relational(1)	16.034	1.000	9194045.947
Information(9) By Relational(2)	-1.041	1.000	.353
Information(9) By Relational(3)	18.579	1.000	117128915.728
Information(9) By Relational(4)	-1.660	1.000	.190
Information(10) By Relational(2)	-19.021	1.000	.000
Information(10) By Relational(3)	.122	1.000	1.130
Entertainment(1) By Relational(1)	.369	.684	1.446
Entertainment(1) By Relational(2)	.178	.906	1.195
Entertainment(1) By Relational(3)	17.258	.997	31278733.481
Entertainment(1) By Relational(4)	.251	1.000	1.286
Entertainment(1) By Relational(5)	.522	1.000	1.686
Entertainment(1) By Relational(6)	17.148	.999	28011175.717
Entertainment(2) By Relational(1)	17.304	.997	32743551.355
Entertainment(2) By Relational(2)	-.324	.836	.723
Entertainment(2) By Relational(3)	17.839	.998	55876913.024
Entertainment(2) By Relational(4)	.556	1.000	1.743
Entertainment(2) By Relational(5)	.490	1.000	1.632
Entertainment(2) By Relational(7)	19.600	1.000	325365298.073
Entertainment(3) By Relational(1)	-19.740	.998	.000
Entertainment(3) By Relational(2)	-2.144	1.000	.117
Entertainment(3) By Relational(3)	-.481	1.000	.618
Entertainment(3) By Relational(4)	-18.535	1.000	.000
Entertainment(3) By Relational(5)	-18.350	1.000	.000
Entertainment(4) By Relational(1)	.297	1.000	1.346
Entertainment(4) By Relational(2)	-1.131	1.000	.323
Entertainment(4) By Relational(3)	.477	1.000	1.610
Entertainment(5) By Relational(1)	16.040	1.000	9252213.626
Entertainment(5) By Relational(2)	-.182	1.000	.833
Entertainment(5) By Relational(3)	18.407	1.000	98653664.723
Relational(1) By Remunerative(1)	.737	.081	2.090
Relational(1) By Remunerative(2)	18.692	.996	131202032.679
Relational(1) By Remunerative(3)	.103	1.000	1.109
Relational(2) By Remunerative(1)	2.447	1.000	11.551
Relational(2) By Remunerative(2)	19.781	1.000	389645508.881
Relational(2) By Remunerative(3)	1.407	1.000	4.084
Relational(2) By Remunerative(4)	-.122	1.000	.885
Relational(3) By Remunerative(1)	1.292	.215	3.640
Relational(3) By Remunerative(2)	18.547	.998	113429576.896
Relational(3) By Remunerative(3)	.123	1.000	1.131
Relational(3) By Remunerative(4)	-.952	1.000	.386
Relational(4) By Remunerative(1)	17.597	.997	43892980.443
Relational(4) By Remunerative(2)	19.037	.999	185196242.220
Relational(4) By Remunerative(3)	.687	1.000	1.987
Relational(5) By Remunerative(1)	17.952	.998	62598449.432
Relational(5) By Remunerative(2)	18.636	.999	124024110.012
Relational(6) By Remunerative(1)	16.592	.999	16064730.394
Relational(6) By Remunerative(2)	18.897	1.000	161086463.445
Relational(7) By Remunerative(3)	1.361	1.000	3.900
Entertainment(1) by Remunerative(1)	0.26	0.84	1.30
Entertainment(1) by Remunerative (2)	0.00	1.00	1.00
Entertainment(1) by Remunerative (3)	0.45	1.00	1.57

	Entertainment(2) by Remunerative (1)	17.38	1.00	35491539.81
	Entertainment(2) by Remunerative (2)	0.45	1.00	1.57
	Entertainment(3) by Remunerative (1)	16.43	1.00	13667800.08
	Entertainment(3) by Remunerative (2)	-0.19	1.00	0.83
	Entertainment(4) by Remunerative (1)	0.39	1.00	1.48
	Entertainment(5) by Remunerative (1)	-1.04	1.00	0.35
	Entertainment(1) by Remunerative (1)	0.26	0.84	1.30

Appendix E.5. Logistic regression results showing effect of content interactions on DORMANT SMEB

SMEB	Interaction	b	Sig	Exp(B)
Dormancy	Entertainment(1) By Information(1)	.635	.139	1.888
	Entertainment(1) By Information(2)	.608	.061	1.837
	Entertainment(1) By Information(3)	1.131	.002	3.098
	Entertainment(1) By Information(4)	.320	.426	1.377
	Entertainment(1) By Information(5)	1.269	.011	3.558
	Entertainment(1) By Information(6)	1.667	.025	5.298
	Entertainment(1) By Information(7)	.877	.315	2.405
	Entertainment(1) By Information(8)	3.190	.052	24.291
	Entertainment(1) By Information(9)	-41.180	.999	.000
	Entertainment(1) By Information(10)	.453	1.000	1.573
	Entertainment(1) By Information(11)	20.674	1.000	951453849.936
	Entertainment(2) By Information(1)	.240	.580	1.271
	Entertainment(2) By Information(2)	.672	.140	1.957
	Entertainment(2) By Information(3)	.245	.620	1.278
	Entertainment(2) By Information(4)	.555	.327	1.742
	Entertainment(2) By Information(5)	.634	.302	1.886
	Entertainment(2) By Information(6)	.692	.465	1.997
	Entertainment(2) By Information(7)	2.046	.071	7.740
	Entertainment(2) By Information(9)	.572	1.000	1.771
	Entertainment(3) By Information(1)	.140	.878	1.150
	Entertainment(3) By Information(2)	.666	.539	1.946
	Entertainment(3) By Information(3)	-.493	.651	.611
	Entertainment(3) By Information(4)	.909	.403	2.482
	Entertainment(3) By Information(5)	.720	.589	2.054
	Entertainment(3) By Information(6)	-19.304	1.000	.000
	Entertainment(3) By Information(7)	21.733	1.000	274578963.420
	Entertainment(3) By Information(9)	-41.856	.999	.000
	Entertainment(4) By Information(1)	-19.733	1.000	.000
	Entertainment(4) By Information(2)	-20.238	1.000	.000
	Entertainment(4) By Information(3)	-21.591	1.000	.000
	Entertainment(4) By Information(4)	.543	1.000	1.721
	Entertainment(4) By Information(5)	-20.161	1.000	.000
	Entertainment(5) By Information(2)	-21.800	.999	.000
	Entertainment(5) By Information(6)	-20.612	1.000	.000
	Information(1) By Remunerative(1)	-43.614	.999	.000
	Information (1) By Remunerative(2)	-43.610	.999	.000
	Information (1) By Remunerative(3)	-43.698	.999	.000
	Information (2) By Remunerative(1)	-43.030	.999	.000
	Information (2) By Remunerative(2)	-42.792	.999	.000
	Information (2) By Remunerative(3)	-42.637	.999	.000
	Information (3) By Remunerative(1)	-1.392	.307	.248
	Information (3) By Remunerative(2)	-.554	.703	.575
	Information (4) By Remunerative(1)	-1.075	.442	.341
	Information (4) By Remunerative(2)	-.589	.692	.555
	Information (5) By Remunerative(1)	-2.349	.123	.096
Information (5) By Remunerative(2)	-2.195	.168	.111	
Information (6) By Remunerative(1)	-22.053	.999	.000	

Information (6) By Remunerative(2)	-22.274	.999	.000
Information (7) By Remunerative(1)	-2.536	.149	.079
Information (7) By Remunerative(2)	-2.910	.137	.054
Information (8) By Remunerative(1)	18.159	1.000	76956381.111
Information (8) By Remunerative(2)	40.966	.999	618198200.000
Information (9) By Remunerative(1)	-43.429	.999	.000
Information (9) By Remunerative(2)	-.616	1.000	.540
Information (10) By Remunerative(1)	.304	1.000	1.356
Information(1) By Relational(1)	0.53	0.10	1.70
Information (1) By Relational(2)	0.83	0.03	2.30
Information (1) By Relational(3)	0.13	0.84	1.13
Information (1) By Relational(4)	1.60	0.23	4.95
Information (1) By Relational(5)	21.05	1.00	1391153869.26
Information (2) By Relational(1)	0.52	0.14	1.68
Information (2) By Relational(2)	0.63	0.13	1.88
Information (2) By Relational(3)	0.78	0.25	2.19
Information (2) By Relational(4)	2.08	0.11	8.04
Information (2) By Relational(5)	21.81	1.00	2953092372.09
Information (3) By Relational(1)	0.57	0.15	1.77
Information (3) By Relational(2)	1.00	0.03	2.72
Information (3) By Relational(3)	0.17	0.82	1.18
Information (3) By Relational(4)	2.70	0.05	14.89
Information (3) By Relational(5)	21.73	1.00	2740145635.41
Information (3) By Relational(6)	21.21	1.00	1628348321.47
Information (4) By Relational(1)	0.64	0.15	1.89
Information (4) By Relational(2)	1.31	0.01	3.71
Information (4) By Relational(3)	0.93	0.23	2.53
Information(4) By Relational(4)	3.69	0.02	40.16
Information (4) By Relational(5)	21.19	1.00	1590886840.48
Information (5) By Relational(1)	0.26	0.68	1.30
Information (5) By Relational(2)	0.97	0.13	2.64
Information (5) By Relational(3)	1.50	0.11	4.49
Information (5) By Relational(4)	1.89	0.21	.64
Information (5) By Relational(5)	23.09	1.00	1069859393.09
Information (5) By Relational(7)	20.99	1.00	1306619258.13
Information (6) By Relational(1)	1.91	0.14	6.72
Information (6) By Relational(2)	2.96	0.05	19.32
Information (6) By Relational(3)	-19.83	1.00	0.00
Information (6) By Relational(4)	4.18	0.04	65.48
Information (6) By Relational(5)	1.52	1.00	4.56
Information (6) By Relational(6)	22.11	1.00	4011916200.56
Information (7) By Relational(1)	1.61	0.23	5.02
Information (7) By Relational(2)	2.39	0.09	10.90
Information (7) By Relational(3)	1.98	0.17	7.25
Information (7) By Relational(4)	24.71	1.00	5369777464.42
Information (7) By Relational(5)	23.98	1.00	25876368695.5
Information (8) By Relational(1)	-1.20	0.34	0.30
Information (8) By Relational(2)	0.26	0.84	1.29
Information (8) By Relational(3)	-21.45	1.00	0.00
Information (8) By Relational(4)	-19.53	1.00	0.00
Information (8) By Relational(6)	20.24	1.00	614350319.72
Information (9) By Relational(1)	-21.43	1.00	0.00

Information (9) By Relational(2)	21.15	1.00	1535331361.32
Information (9) By Relational(3)	20.41	1.00	729417160.02
Information (9) By Relational(4)	-20.31	1.00	0.00
Information (10) By Relational(2)	0.12	1.00	1.13
Information (10) By Relational(3)	-0.23	1.00	0.80
Information (1) By Relational(1)	0.53	0.10	1.70
Entertainment(1) By Remunerative(1)	.947	.004	2.578
Entertainment(1) By Remunerative(2)	1.026	.122	2.789
Entertainment(1) By Remunerative(3)	-40.766	.999	.000
Entertainment(2) By Remunerative(1)	.380	.329	1.462
Entertainment(2) By Remunerative(2)	.725	.370	2.064
Entertainment(3) By Remunerative(1)	1.661	.202	5.265
Entertainment(3) By Remunerative(2)	-19.838	1.000	.000
Entertainment(4) By Remunerative(1)	-21.401	.999	.000
Entertainment(5) By Remunerative(1)	1.219	1.000	3.385
Entertainment(1) By Relational(1)	.003	.989	1.003
Entertainment(1) By Relational(2)	.461	.099	1.586
Entertainment(1) By Relational(3)	-.150	.720	.860
Entertainment(1) By Relational(4)	.759	.221	2.137
Entertainment(1) By Relational(5)	1.956	.142	7.069
Entertainment(1) By Relational(6)	21.013	.999	133570045.892
Entertainment(2) By Relational(1)	.422	.228	1.525
Entertainment(2) By Relational(2)	.293	.440	1.340
Entertainment(2) By Relational(3)	.069	.890	1.072
Entertainment(2) By Relational(4)	1.355	.106	3.877
Entertainment(2) By Relational(5)	2.530	.069	12.558
Entertainment(2) By Relational(7)	20.932	1.000	123223006.004
Entertainment(3) By Relational(1)	-.111	.870	.895
Entertainment(3) By Relational(2)	.834	.265	2.303
Entertainment(3) By Relational(3)	.068	.946	1.071
Entertainment(3) By Relational(4)	-.351	.823	.704
Entertainment(3) By Relational(5)	23.600	.999	176481626.517
Entertainment(4) By Relational(1)	-22.922	.999	.000
Entertainment(4) By Relational(2)	-.754	.652	.471
Entertainment(4) By Relational(3)	-1.562	.271	.210
Entertainment(5) By Relational(1)	-21.225	1.000	.000
Entertainment(5) By Relational(2)	-21.176	1.000	.000
Entertainment(5) By Relational(3)	-22.121	1.000	.000
Relational(1) By Remunerative(1)	-0.42	0.28	0.66
Relational(1) By Remunerative (2)	-0.80	0.25	0.45
Relational(2) By Remunerative (1)	0.29	0.50	1.33
Relational(2) By Remunerative (2)	-0.39	0.59	0.68
Relational(2) By Remunerative (3)	20.64	1.00	921396436.90
Relational(2) By Remunerative (4)	20.31	1.00	658513069.42
Relational(3) By Remunerative (1)	1.22	0.02	3.39
Relational(3) By Remunerative (2)	0.16	0.87	1.17
Relational(3) By Remunerative(3)	-20.32	1.00	0.00
Relational(4) By Remunerative(1)	-1.33	0.16	0.26
Relational(4) By Remunerative(2)	20.39	1.00	715974819.87
Relational(5) By Remunerative(1)	-0.20	0.85	0.82
Relational(6) By Remunerative(1)	0.00	1.00	1.00
Relational(7) By Remunerative(2)	20.60	1.00	883121832.62

	Relational(1) By Remunerative(1)	-0.42	0.28	0.66
	Relational(1) By Remunerative(2)	-0.80	0.25	0.45
	Relational(2) By Remunerative(1)	0.29	0.50	1.33
	Relational(2) By Remunerative(2)	-0.39	0.59	0.68
	Relational(2) By Remunerative(3)	20.64	1.00	921396436.90
	Relational(2) By Remunerative(4)	20.31	1.00	658513069.42

Appendix E.6. Logistic regression results showing effect of content interactions on DETACHING SMEB

SMEB	Interaction	b	Sig	Exp(B)
Detaching behaviour	Entertainment(1) By Information(1)	-0.19	0.67	1.18
	Entertainment(1) By Information (2)	0.40	0.27	1.55
	Entertainment(1) By Information (3)	0.36	0.34	0.62
	Entertainment(1) By Information (4)	-16.65	0.03	0.32
	Entertainment(1) By Information (5)	0.24	0.58	0.68
	Entertainment(1) By Information (6)	0.34	0.88	1.13
	Entertainment(1) By Information (7)	0.27	0.40	2.87
	Entertainment(1) By Information (8)	0.26	0.56	0.42
	Entertainment(1) By Information (9)	-0.03	1.00	0.00
	Entertainment(1) By Information (10)	-0.33	1.00	0.58
	Entertainment(1) By Information (11)	17.45	1.00	0.00
	Entertainment(2) By Information (1)	-1.20	0.96	1.03
	Entertainment(2) By Information (2)	-1.12	0.75	1.20
	Entertainment(2) By Information (3)	16.57	0.63	1.38
	Entertainment(2) By Information (4)	-0.31	0.91	0.92
	Entertainment(2) By Information (5)	-0.19	0.41	1.90
	Entertainment(2) By Information (6)	0.04	0.86	1.20
	Entertainment(2) By Information (7)	-0.52	1.00	0.00
	Entertainment(2) By Information (9)	-0.87	1.00	0.00
	Entertainment(3) By Information (1)	-18.94	1.00	430874509.25
	Entertainment(3) By Information (2)	-0.41	1.00	1010470885.90
	Entertainment(3) By Information (3)	-0.41	1.00	636204591.52
	Entertainment(3) By Information (4)	-17.34	1.00	383526207.89
	Entertainment(3) By Information (5)	-17.65	1.00	465321488.78
	Entertainment(3) By Information (6)	-35.04	1.00	0.19
	Entertainment(3) By Information (7)	-17.55	1.00	24210891213.00
	Entertainment(3) By Information (9)	-18.10	1.00	0.15
	Entertainment(4) By Information (1)	-0.57	1.00	1159103964.70
	Entertainment(4) By Information (2)	-1.66	1.00	167187670.24
	Entertainment(4) By Information (3)	-0.58	1.00	437574272.77
	Entertainment(4) By Information (4)	-16.85	1.00	0.54
	Entertainment(4) By Information (5)	-16.97	1.00	0.53
	Entertainment(5) By Information (2)	17.27	0.09	11.81
	Entertainment(5) By Information(6)	-0.23	1.00	0.00
	Information(1) By Remunerative(1)	0.70	0.41	2.01
	Information (1) By Remunerative (2)	0.23	0.87	1.26
	Information (1) By Remunerative (3)	-20.12	1.00	0.00
	Information (2) By Remunerative (1)	0.86	0.31	2.36
	Information (2) By Remunerative (2)	0.09	0.95	1.09
	Information (2) By Remunerative (3)	-19.91	1.00	0.00
	Information (3) By Remunerative (1)	0.26	0.79	1.30
	Information (3) By Remunerative (2)	-0.98	0.51	0.37
Information (4) By Remunerative (1)	1.00	0.26	2.73	
Information (4) By Remunerative (2)	0.15	0.92	1.16	
Information (5) By Remunerative (1)	0.61	0.53	1.85	
Information (5) By Remunerative (2)	0.77	0.61	2.16	
Information (5) By Remunerative (3)	-20.01	1.00	0.00	

Information (6) By Remunerative (1)	1.60	0.15	4.94
Information (6) By Remunerative (2)	-0.44	0.82	0.64
Information (7) By Remunerative (1)	1.94	0.14	6.94
Information (7) By Remunerative (2)	-0.21	0.91	0.81
Information (8) By Remunerative (1)	-42.29	1.00	0.00
Information (8) By Remunerative (2)	-42.80	1.00	0.00
Information (8) By Remunerative (4)	-43.25	1.00	0.00
Information (9) By Remunerative (1)	21.56	1.00	2319200299.08
Information (9) By Remunerative (2)	-1.29	1.00	0.28
Information (10) By Remunerative (1)	-0.39	1.00	0.68
Information(1) By Relational(1)	0.20	0.62	1.22
Information (1) By Relational(2)	0.32	0.53	1.37
Information (1) By Relational(3)	19.51	1.00	297482290.16
Information (1) By Relational(4)	-0.88	0.54	0.41
Information (1) By Relational(5)	-1.24	1.00	0.29
Information (2) By Relational(1)	0.25	0.56	1.29
Information (2) By Relational(2)	0.45	0.39	1.57
Information (2) By Relational(3)	19.81	1.00	400946813.04
Information (2) By Relational(4)	-0.19	0.89	0.83
Information (2) By Relational(5)	20.04	1.00	506784491.92
Information (3) By Relational(1)	-0.87	0.10	0.42
Information (3) By Relational(2)	-0.41	0.52	0.67
Information (3) By Relational(3)	19.86	1.00	421433758.15
Information (3) By Relational(4)	-1.49	0.36	0.23
Information (3) By Relational(5)	-0.67	1.00	0.51
Information (3) By Relational(6)	-19.68	1.00	0.00
Information (4) By Relational(1)	-0.13	0.81	0.88
Information (4) By Relational(2)	-0.17	0.79	0.85
Information (4) By Relational(3)	20.02	1.00	492635869.22
Information (4) By Relational(4)	-0.65	0.67	0.52
Information (4) By Relational(5)	19.96	1.00	468382612.75
Information (5) By Relational(1)	-0.66	0.35	0.51
Information (5) By Relational(2)	-1.00	0.21	0.37
Information (5) By Relational(3)	-0.66	1.00	0.52
Information (5) By Relational(4)	-21.19	1.00	0.00
Information (5) By Relational(5)	18.72	1.00	135125429.81
Information (5) By Relational(7)	23.02	1.00	9906681704.14
Information (6) By Relational(1)	0.67	0.60	1.95
Information (6) By Relational(2)	0.05	0.97	1.05
Information (6) By Relational(3)	-0.53	1.00	0.59
Information (6) By Relational(4)	-20.48	1.00	0.00
Information (6) By Relational(5)	40.85	1.00	55081085068.00
Information (6) By Relational(6)	0.84	0.65	2.31
Information (7) By Relational(1)	-20.90	1.00	0.00
Information (7) By Relational(2)	0.51	0.70	1.66
Information (7) By Relational(3)	-1.45	1.00	0.23
Information (7) By Relational(4)	-21.89	1.00	0.00
Information (7) By Relational(5)	-2.16	1.00	0.11
Information (8) By Relational(1)	1.44	0.28	4.23
Information (8) By Relational(2)	2.13	0.10	8.45
Information (8) By Relational(3)	43.06	1.00	50306368794.00
Information (8) By Relational(4)	21.65	1.00	2533386209.98

Information (8) By Relational(6)	-19.87	1.00	0.00
Information (9) By Relational(1)	-18.88	1.00	0.00
Information (9) By Relational(2)	1.66	0.26	5.26
Information (9) By Relational(3)	-0.32	1.00	0.72
Information (9) By Relational(4)	-20.54	1.00	0.00
Information (10) By Relational(2)	-1.12	1.00	0.33
Information (10) by Relational(3)	18.58	1.00	117323980.33
Entertainment(1) By Remunerative(1)	-.585	0.19	.557
Entertainment(1) By Remunerative (2)	-.292	0.69	.747
Entertainment(1) By Remunerative (3)	-.650	1.00	.522
Entertainment(2) By Remunerative (1)	.441	0.35	1.554
Entertainment(2) By Remunerative (2)	.119	0.89	1.126
Entertainment(3) By Remunerative (1)	-20.776	1.00	.000
Entertainment(3) By Remunerative (2)	20.541	1.00	833745640.352
Entertainment(4) By Remunerative (1)	1.824	0.27	6.198
Entertainment(5) By Remunerative (1)	-22.843	1.00	.000
Entertainment(1) By Remunerative (1)	-.585	0.19	.557
Entertainment(1) By Remunerative (2)	-.292	0.69	.747
Entertainment(1) By Remunerative (3)	-.650	1.00	.522
Entertainment(2) By Remunerative (1)	.441	0.35	1.554
Entertainment(2) By Remunerative (2)	.119	0.89	1.126
Entertainment(3) By Remunerative (1)	-20.776	1.00	.000
Entertainment(3) By Remunerative (2)	20.541	1.00	833745640.352
Entertainment(4) By Remunerative (1)	1.824	0.27	6.198
Entertainment(5) By Remunerative (1)	-22.843	1.00	.000
Relational(1) By Remunerative(1)	-.337	0.48	.714
Relational(1) By Remunerative (2)	-.064	0.93	.938
Relational(2) By Remunerative (1)	-.198	0.70	.820
Relational(2) By Remunerative (2)	-.703	0.37	.495
Relational(2) By Remunerative (3)	-19.962	1.00	.000
Relational(2) By Remunerative (4)	-20.267	1.00	.000
Relational(3) By Remunerative (1)	-.975	0.16	.377
Relational(3) By Remunerative (2)	-1.459	0.25	.232
Relational(3) By Remunerative (3)	-20.368	1.00	.000
Relational(4) By Remunerative (1)	.136	0.91	1.146
Relational(4) By Remunerative(2)	-.311	0.83	.733
Relational(5) By Remunerative(1)	-.885	0.50	.413
Relational(6) By Remunerative(1)	-20.263	1.00	.000
Relational(7) By Remunerative(2)	22.450	1.00	5621063601.119
Relational(1) By Remunerative (1)	-.337	0.48	.714
Relational(1) By Remunerative (2)	-.064	0.93	.938
Relational(2) By Remunerative (1)	-.198	0.70	.820
Relational(2) By Remunerative (2)	-.703	0.37	.495
Relational(2) By Remunerative (3)	-19.962	1.00	.000
Relational(2) By Remunerative (4)	-20.267	1.00	.000
Relational(3) By Remunerative (1)	-.975	0.16	.377
Relational(3) By Remunerative (2)	-1.459	0.25	.232
Relational(3) By Remunerative (3)	-20.368	1.00	.000
Relational(4) By Remunerative (1)	.136	0.91	1.146
Relational(4) By Remunerative (2)	-.311	0.83	.733
Relational(5) By Remunerative (1)	-.885	0.50	.413
Relational(6) By Remunerative (1)	-20.263	1.00	.000

Relational(7) By Remunerative (2)	22.450	1.00	5621063601.119
Entertainment(1) By Relational(1)	.092	0.76	1.096
Entertainment(1) By Relational(2)	.158	0.65	1.171
Entertainment(1) By Relational(3)	-.830	0.13	.436
Entertainment(1) By Relational(4)	-1.497	0.10	.224
Entertainment(1) By Relational(5)	-.856	0.50	.425
Entertainment(1) By Relational(6)	-.357	0.75	.700
Entertainment(2) By Relational(1)	-.441	0.34	.643
Entertainment(2) By Relational(2)	.653	0.16	1.922
Entertainment(2) By Relational(3)	-.263	0.67	.769
Entertainment(2) By Relational(4)	-.192	0.84	.825
Entertainment(2) By Relational(5)	-.663	0.61	.515
Entertainment(2) By Relational(7)	23.653	1.00	1872355431.805
Entertainment(3) By Relational(1)	1.065	0.19	2.902
Entertainment(3) By Relational(2)	1.737	0.04	5.679
Entertainment(3) By Relational(3)	-.433	0.75	.648
Entertainment(3) By Relational(4)	-20.333	1.00	.000
Entertainment(3) By Relational(5)	-20.318	1.00	.000
Entertainment(4) By Relational(1)	2.430	0.20	11.361
Entertainment(4) By Relational(2)	-18.941	1.00	.000
Entertainment(4) By Relational(3)	1.210	0.41	3.353
Entertainment(5) By Relational(1)	-20.179	1.00	.000
Entertainment(5) By Relational(2)	-18.446	1.00	.000
Entertainment(5) By Relational(3)	23.658	1.00	1881386105.436

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