Cool Brands.

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Table of Contents

Thesis Abstract

‘Cool’ is a concept that is highly relevant for many marketing researchers and practitioners. This is because cool brands can positively influence consumers’ attitudes and behaviours. While cool is commonly targeted through approaches such as ‘coolhunting’, very little research has been conducted to explicate and develop empirical models of cool in the context of brands. In particular, there is a lack of a unified definition of cool and established scales that operationalise cool in different contexts.

This thesis addresses these gaps through a series of three interconnected studies that: (1) develop a conceptual framework to understand cool as a concept; (2) empirically test a model of brand cool; and (3) develop and test an 18-item scale to measure brand cool.

The first study consists of a systematic review that identifies seven key dimensions of cool: deviating from norms, subversive, evasive, attractive, self-expressive, pro-social, and indicative of maturity. A holistic framework of cool is then developed that integrates existing knowledge on cool from different contexts. Study 2 involves a qualitative interview study involving consumers and marketing experts. This study generated attributes of cool brands and an initial list of items to measure cool that align with the dimensions identified in study 1. Study 2 also provides new insights on how consumer perceptions of cool evolve from adolescence to adulthood. Study 3 is a scale development study that first refines the list of items identified in study 2 and then through a series of four surveys examines the dimensionality, convergent and concurrent validity, and test-retest reliability of the scale. The results lead to a four-dimension model of brand cool (dynamism, composure, subversion, and confidence) that can be measured through a scale. These results clarify the nature of cool and provide marketers with a robust scale to assess cool in different contexts.

Statement of Original Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material which has been accepted for the award of any other degree or diploma of a university or other institute of higher learning.

This thesis comprises my own work towards fulfilling the requirement of a Doctor of Philosophy (PhD) degree. I have undertaken all the work including the conceptualisation, data collection, data analysis, and write up pertinent to the PhD project. However, I received reviews from my co-authors for the papers resulting from the research project. My co-authors contributed by providing critical feedback and editing my papers, but I was the lead author in all of them. The contributions made by my co-authors are listed under 'Acknowledgements' (p.vii).

The data analysed and used for this thesis are primary data. I collected the data through different methods that involved qualitative interviews and online surveys. All relevant Australian, New South Wales, and Macquarie University ethical policies were adhered to when collecting the data, for which I received approval from the Macquarie University Ethics Committee (Approval No. 5201500667).

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01 November 2018 Signed

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I acknowledge here the contributions of my supervisors and co-authors in each of the studies and subsequent papers. The contribution ratios of authors in these papers are outlined below.

PAPER 1: A conceptual framework of cool for social marketing
Khondker Galib B Mohiuddin – 70% (conceptualisation, data collection, analysis, write up)
Ross Gordon – 15% (critical feedback, editing)
Christopher Magee – 10% (critical feedback)
Jeong Kyu Lee – 5% (critical feedback)

PAPER 2: Evolution in cool identities as adolescent consumers grow up
Khondker Galib B Mohiuddin – 90% (conceptualisation, data collection, analysis, write up)
Ross Gordon – 10% (critical feedback)

PAPER 3: Measuring brand cool: Conceptualisation, scale development, and validation
Khondker Galib B Mohiuddin – 70% (conceptualisation, data collection, analysis, write up)
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CHAPTER 1: INTRODUCTION AND THESIS OVERVIEW

1.1 Introduction

‘Cool’ is a concept that permeates society at large (Sundar, Tamul, and Wu, 2014; Warren and Campbell, 2014), and is ubiquitous in society and consumer culture (Belk, Tian, and Paavola, 2010; Danesi, 1994). In this thesis, cool is defined as a set of attributes which when demonstrated by any identity results in an audience’s perception of the identity as ‘cool’. As discussed later in this chapter, this set of attributes include: deviating from norms, possessing some form of attractiveness, and being subversive and evasive. While cool identities appeal to a large audience, few individuals are perceived to be truly cool (Belk et al., 2010). Consequently, individuals aspiring to be cool try to adopt cool symbols or expressions. Therefore, once a cool expression or symbol is identified, an increasing number of individuals adopt it, and consequently it gradually becomes ‘uncool’ (Nairn, Griffin, and Wicks, 2008; Rahman, 2013; Southgate, 2003a). Staying cool thus requires continuously updating oneself about expressions and symbols that are perceived to be cool (Gurrieri, 2009; Knobil, 2002; Lindgren, 2013). Research shows that cool holds aspirational value for consumers across age groups: tweens (9–13 year olds), teenagers, young adults, and individuals beyond 30 years of age (Fuller and Thygesen, 1997; Palla et al., 2004). Furthermore, researchers have found that these consumers from an increasing number of countries - such as Brazil, China, France, Germany, India, Japan, Korea, the UK, and the USA - actively seek out and consume cool brands in an attempt to depict their own coolness (Allison, 2009; Belk et al., 2010; Fuller and Thygesen, 1997; Palla, Felice, and Carramenha, 2004).

The ability of cool to influence consumers’ brand preferences attracted significant attention from marketers (Fuller and Thygesen, 1997; Southgate, 2003b). It is well known that consumers respond positively to cool, and brand managers attempt to influence consumer behaviour by embedding cool expressions and symbols in marketing their brands (Bird and Tapp, 2008; Southgate, 2003b; Warren and Campbell, 2014). Studies show that cool can positively affect a consumer’s perception of product value, brand preference, purchase intention, willingness to pay a price premium, word-of-mouth referrals, and brand loyalty

(Bird and Tapp, 2008; Bookman, 2013; Cullen, 2010; Im, Bhat, and Lee, 2015; Knobil, 2002; Sriramachandramurthy, 2009). Furthermore, embedding cool in marketing can expedite the diffusion and a wider adoption of products in the market (Drissel, 2009; Gurrieri, 2009; O'Donnell and Wardlow, 2000; Southgate, 2003b). Hence, focusing on cool can have implications for a brand’s market share, revenue, margins, and overall performance.

Another aspect of cool that is relevant to marketing is its versatility. Brand managers use cool to market a range of products and services including music, music accessories, fashion accessories, sports accessories, food, beverages, alcohol, tobacco, and electronics (Fuller and Thygesen, 1997; Gladwell, 1997; Hoek and Jones, 2011; O'Donnell and Wardlow, 2000; Saxton, 2005). Cool has also been used in social marketing and for the development of pro-social brands, to address social issues and influence pro-social behaviour change among vulnerable segments. For example, cool has been used to encourage teenagers to quit smoking (Bird and Tapp, 2008; Warren and Campbell, 2014). This versatility of cool for marketing brands from different product categories, along with its capacity to positively influence consumers, makes cool a valuable concept for marketers.

The potential benefits of focusing on cool in marketing as noted above mean that marketers are willing to pay significant amounts of money to capture cool and embed it in their brands (Bird and Tapp, 2008). In particular, marketers commonly invest in ‘coolhunting’ to embed cool in brands (Gaskins, 2003; Gurrieri, 2009). Coolhunting is an established and dominant practice for cool-related market research (Gurrieri, 2009; Nancarrow, Nancarrow, and Page, 2002; Southgate, 2003a). It focuses on identifying and carefully monitoring emerging trends in cool expressions and symbols (Southgate, 2003a). Coolhunting also assists in embedding cool in brands by recruiting trendsetters and opinion leaders to endorse these trends for brands (Gaskins, 2003; Gurrieri, 2009). The coolhunting industry employs ‘coolhunters’ who act as special field agents for identifying trends and opinion leaders (Gladwell, 1997). Coolhunters have insider access to cool groups and subcultures, and are assumed to possess an exclusive knowledge of how to identify a cool trend before it gains wider adoption (Gaskins, 2003; Gurrieri, 2009). Scholars have argued that coolhunters tend to portray their knowledge of what is cool as incomprehensible to others, including marketing practitioners and researchers (Bird and Tapp, 2008; Culén and Gasparini, 2012; Gladwell, 1997; Gurrieri, 2009; Nancarrow et al., 2002; O'Donnell and Wardlow, 2000; Southgate, 2003a).

Some researchers have argued that the marketing discipline would benefit from the development of conceptual and empirical models of cool, in preference to relying on coolhunting (Bird and Tapp, 2008; Culén and Gasparini, 2012; Nancarrow et al., 2002; O'Donnell and Wardlow, 2000; Southgate, 2003b). According to these researchers, coolhunting has several weaknesses that can be overcome by developing models of cool. First, the methods used in coolhunting for analysing and interpreting data are considered unscientific, as they rely on the subjective judgements of coolhunters (Bird and Tapp, 2008; Nancarrow et al., 2002; Southgate, 2003b). Second, coolhunting does not allow for prediction of future trends of cool expressions and symbols, and only identifies less known existing trends (Rahman and Cherrier, 2010; Warrington, 2010). Third, as cool trends are gradually diffused in the market and become mainstream, they also become uncool. Therefore, coolhunters are on a perpetual search for emerging cool trends (Bird and Tapp, 2008; O'Donnell and Wardlow, 2000). Consequently, investing perpetually in coolhunting for identifying short-lived trends is considered more expensive than undertaking studies to develop models of cool (Bird and Tapp, 2008; Southgate, 2003b). Alternatively, the empirically development of a model of cool may allow marketers to leverage it over a relatively longer period of time, and therefore reduce the costs of embedding cool in brands.

The development of a model of cool, however, represents a major challenge given the transient and subjective nature of cool (Knobil, 2002; Rahman, 2013; Warren and Campbell, 2014). the transience of cool relates to the short-lived trends of cool expressions and symbols. This transience does not permit capturing a cool trend at a point in time to study and analyse it. In fact, as an industry, coolhunting thrives on the notion that cool expressions are subjective and transient, defying any "coherent philosophy" (Bird and Tapp, 2008, p. 21; Gurrieri, 2009; Southgate, 2003b). In addition, for someone or something to be considered cool, it must be evaluated as cool by an audience (Belk et al., 2010; Gurrieri, 2009; Sundar et al., 2014; Warren and Campbell, 2014). The individual evaluations of an audience depend on personal values and are subjective. Based on this reasoning, it has been suggested that cool cannot be truly defined due to its subjectivity (Knobil, 2002; Rahman, 2013; Warren and Campbell, 2014).

Despite the challenges mentioned above, the following understanding provides reason to believe that models of cool can be developed. Research suggests that consumers can recognise cool when they see it, and they largely concur as to which expressions and symbols are cool (Belk et al., 2010; Leland, 2009; Warren and Campbell, 2014). This indicates that many consumers share a coherent perception of cool. Hence, focusing on research to explicate and define the concept of cool on the basis of consumer perceptions may help overcome the difficulty related to analysing the transient and short-lived cool trends. Marketing researchers have long recognised that consumers are influenced by their constantly evolving socio-cultural and technological environments (Everett, Pieters, and Titus, 1994; Kotler and Armstrong, 2010; Massara, Liu, and Melara, 2010). Considering the effect of these evolving environments on consumer perceptions, researchers suggest that models for concepts relevant to marketing should be periodically evaluated and updated (Avis, 2012; Geuens et al., 2009). Hence, despite the transience of cool, it should be possible to develop conceptual and empirical models for concept of cool. Additionally, the marketing discipline often approaches and examines subjective, abstract, and latent concepts that are related to consumers' perceptions (Chaffee, 1991; Edwards and Bagozzi, 2000; Gilliam and Voss, 2013). For example, 'brand image' and 'brand personality' are subjective concepts that depend on individual perceptions of consumers, but have been defined and measured in marketing (Aaker, Benet-Martinez, and Garolera, 2001; Geuens, Weijters, and De Wulf, 2009; Nandan, 2005; Sung and Tinkham, 2005). Research methods involving concept explication and concept measurement allow for the development of models for these subjective and abstract concepts (Bernstein and Nunnally, 1994; Chaffee, 1991; Churchill, 1979; Gilliam and Voss, 2013; Mowen and Voss, 2008). Therefore, models of cool can be developed using existing methods of concept explication and model development in the marketing discipline.

Reviewing the extant literature on cool identifies several studies that leverage such methods to present models and definitions of cool for specific contexts (e.g., Dar-Nimrod et al., 2012; Gurrieri, 2009; O'Donnell and Wardlow, 2000; Rahman, 2013; Read et al., 2011; Southgate, 2003b; Sriramachandramurthy, 2009; Sundar et al., 2014). These studies support the position that developing a conceptual model of what cool is from a marketing perspective, and empirically testing the model, is indeed possible. Therefore, this PhD research aims to add to the knowledge base on cool by conceptualising cool in the marketing context, and by developing an empirically tested model of, and a scale for, measuring brand cool. In doing so, the PhD will make several theoretical and practical contributions. It will theoretically contribute to marketing by providing a definition of cool and an empirically tested conceptual model of brand cool. Furthermore, the research will present a validated and reliable 18-item scale for measuring brand cool that can be used by marketing researchers and brand managers.

The remainder of this chapter is structured as follows. First, it briefly focuses on the definitions of cool, and charts the history of cool. Next, an analysis of the extant literature on cool to help establish the conceptual foundations of cool from a marketing perspective, and identify relevant dimensions of cool, is presented by analysing the extant literature. The chapter then presents the research aims and questions addressed in this thesis, before summarising the research methods utilised to answer the questions. Finally, the chapter ends with an outline of the remainder of this PhD thesis.

1.2 Defining cool

Cool can be a difficult concept to define due to its pervasiveness in society, and its subsequent relevance across contexts. It can be used to describe almost any entity, be it an object or a person (Rahman, 2013; Sundar et al., 2014; Warren and Campbell, 2014). Consequently, researchers from marketing, engineering and design, sociology, anthropology, cultural studies, and psychology study cool from different perspectives (Dar-Nimrod et al., 2012; Frank, 1998; Gerber and Geiman, 2012; Sundar et al., 2014; Warren and Campbell, 2014). Researchers have studied and defined cool as a cultural phenomenon, as a stage in life, as a personality trait, as an attitude, and as a design attribute (Danesi, 1994; Dar-Nimrod et al., 2012; Gerber and Geiman, 2012; Pountain and Robins, 2000; Sundar et al., 2014; Warren and Campbell, 2014). To develop an understanding of the concept, several definitions of cool from the relevant literature are discussed next (see Table 1.1).

Using interpretive methods, Nancarrow et al. (2002) define cool from two different perspectives. From one perspective, they define it as a form of cultural capital that consists of "insider knowledge about commodities and consumption practices yet unavailable to the mainstream" (Nancarrow et al., 2002, p. 315). The cultural capital perspective of cool helps explain the practice of embedding cool in brands through coolhunting. Coolhunters, through their networks, identify emerging trends from cool subcultures and its members, who have insider knowledge of the trends. These trends are then embedded in marketing, and consequently adopted by mainstream consumers. From another perspective, Nancarrow et al. (2002) define cool as an attitude that is laid-back, narcissistic, and hedonistic. The association with narcissism indicates that cool is related to self-expression.

Table 1.1

Definitions and associations of cool

Context	*Definition/ associations*	*Study*
Cultural capital (consumer culture)	"Insider knowledge about commodities and consumption practices yet unavailable to mainstream".	Nancarrow et al. (2002, p. 315)
Consumer culture	Commoditisation of the "youthful rebellious alternative to class-based status system".	Belk et al. (2010, p. 183)
Personality of individuals (trait)	Combination of "two conceptually coherent and distinct personality orientations: one outward focused and attuned to external valuations, the other more independent, rebellious, and countercultural".	Dar-Nimrod et al. (2012, p. 175)
Products (a set of design attributes)	Products that are not only "attractive and original, but also help the user assert his/her uniqueness or subcultural identity."	Sundar et al. (2014, p. 169)
Cultural objects (trait)	"A subjective and dynamic, socially constructed positive trait attributed to cultural objects (people, brands, products, trends, etc.) inferred to be appropriately autonomous."	Warren and Campbell (2014, p. 544)
Attitude (towards life)	"Concerned with practical reactions with one's situation" through a "life of reason", a "holistic approach to life", valuing "importance of friendship", and an "emphasis on the practical wisdom".	Southgate (2003b, pp. 458-459)
Brands	"A gestalt brand image composed of" an amalgamation of "perceived qualities, particularly authenticity, uniqueness, innovativeness, excitement, and congruency with self-image."	Sriramachandramurthy (2009, p. 21)

Belk et al. (2010) use a combination of qualitative methods – literature review, historical analysis, and interpretive analysis involving consumers – to examine cool from a consumer culture perspective. Belk et al. (2010) suggest that the overuse of the term 'cool' has resulted in two different versions of cool. A "distilled" version of cool takes the form of a "youthful rebellious alternative to class-based status system" involving control of overt displays of emotion, stylised performances to communicate passion, and an insider knowledge of cool subcultural symbols (Belk et al., 2010, p. 183). The other, “diluted” version is evident in mainstream consumer culture and results from adoption of cool subcultural symbols by an outsider of the subculture in an attempt to be cool (Belk et al., 2010, p. 198). The results of their research identified rebellion as a key facet of cool. However, Belk et al. (2010) argued that such rebellion is not against all establishment per se, but rather serves as an alternative to class-based status systems. Another concept from the Belk et al. (2010) study, control of overt displays of emotion, relates to the perspectives of Nancarrow et al. (2002) where they define cool as an attitude. Camouflaging emotions may allow someone to appear laid-back, while one may actually be hedonistic. The reference to insider knowledge in the study of Belk et al. (2010) concurs with the findings of Nancarrow et al. (2002).

Dar-Nimrod et al. (2012) offer a different perspective, conceptualising cool as a personality trait of individuals. They use mixed methods research and an understanding of psychometric theory to produce a two-dimensional model of cool personality. Dar-Nimrod et al. (2012, p. 180) state that cool combines two conflicting dimensions: “contrarian cool” and “cachet cool”. ‘Contrarian’ cool represents characteristics relevant to detachment and camouflage of a cool person. On the other hand, ‘cachet’ cool represents characteristics that relate to social desirability and may have resulted from the marketing of cool (Dar-Nimrod et al., 2012). ‘Contrarian’ cool can be related to the ‘distilled’ version of cool, and ‘cachet’ cool related to the ‘diluted’ version of cool to which Belk et al. (2010) refers. The findings of Dar-Nimrod et al. (2012) support the association of elusiveness with cool, through which a person can camouflage his or her passion by portraying a detachment from emotions.

Sundar et al. (2014) present a study where they explore cool in the context of technology products. They use statistical analyses on survey data and present a three-dimensional model of cool. According to the study, the coolness of a technology product is associated with originality, attractiveness, and subculture (Sundar et al., 2014). All researchers agree that a cool expression or symbol is desirable to an audience (Belk et al., 2010; Gurrieri, 2009; Rahman, 2013; Warrington, 2010). However, Sundar et al.’s (2014) study is the first to identify attractiveness as a dimension of cool. The association of originality with cool is aligned with the understanding that cool may be related to self-expression. The subculture dimension from the study is related to the insider knowledge required to portray coolness and reiterates the understanding from Nancarrow et al. (2002) and Belk et al. (2010).

Warren and Campbell (2014) examine coolness in the context of brand visuals, product packaging, and print advertisements. They present a series of experimental studies and suggest that cool stems from “appropriate autonomy” (Warren and Campbell, 2014, p. 546). Warren and Campbell (2014) relate the ‘appropriateness’ of cool autonomy to norm legitimacy, the level of autonomy, and the counter-culturalism of the subculture in which a consumer belongs. Thus, their study suggests that cool can be defined as bounded autonomy, rather than extreme autonomy, which counters illegitimate norms. The association of cool with autonomy is aligned with the understanding of cool from other studies, that cool is associated with rebellion and self-expression. The association of legitimacy with cool indicates the need for a rebellion to be justified by pro-social causes in order for it to be cool. This understanding supports the findings of Belk et al. (2010), who suggest cool rebellion is an alternative to class-based status systems.

Southgate (2003b) explains cool as a belief system by drawing parallels of cool with Aristotelian values. He draws these parallels by analysing the activities of a few brands that embed cool in their marketing. According to Southgate (2003b), cool is attained by observing four Aristotelian values: the life of reason; holistic approach to life; importance of friendship; and an emphasis on practical wisdom. The association of practical wisdom with cool is relevant to the ‘insider knowledge’ of cool, as identified by Nancarrow et al. (2002) and Belk et al. (2010). The friendly aspect of cool described by Southgate (2003b) counters the rebellious nature of the concept and may be related to the ‘diluted’ version of the concept that resulted from the marketing of cool. Associating cool with a ‘life of reason’ and a ‘holistic approach to life’ indicates that cool is related to pro-social values and supports the arguments of Belk et al. (2010) and Warren and Campbell (2014).

Sriramachandramurthy (2009), in his PhD thesis, explores cool in the context of technology brands. He uses mixed methods research to conceptualise and explicate brand coolness. Using statistical analysis of the data collected through consumer surveys, he also develops a scale for measuring the coolness of technology brands (Sriramachandramurthy, 2009). From his study, he defines brand coolness as “a gestalt brand image composed of an amalgamation of perceived qualities, particularly excitement, authenticity, uniqueness, congruity and innovativeness” (Sriramachandramurthy, 2009, pp. 94-95). Authenticity and uniqueness are recurrent associations that emerge in several studies on cool (e.g., Fitton et al., 2012; Palla et al., 2004; Rahman, 2013). The association of cool with innovativeness in the study by

Sriramachandramurthy (2009) is relevant to the findings of the other studies associating cool with creativity and originality (e.g., Palla et al., 2004; Sundar et al., 2014). The congruity dimension identified in Sriramachandramurthy's study can be explained by cool's association with self-expression. However, the excitement dimension in the study counters the association of cool with camouflage of emotions. A probable explanation of the dimension is through the indirect relationship of excitement with rebellion. Notably, rebellion is a theme that is absent in Sriramachandramurthy (2009).

The definitions of cool presented in Table 1.1 and discussed above indicate that there are several themes that emerge across these definitions. Reviewing the perspectives of other researchers can also provide further insight into the themes associated with cool. For example, while the following researchers do not provide specific definitions of cool, they identify some facets and associations of cool that warrant consideration.

Fitton et al. (2012) consider the concept of cool from two different perspectives: owning cool products; and performing cool behaviour. They collected data from children between the ages of 12 and 15 years, and carried out interpretive and thematic analyses on the data. The study shows that the coolness of a product is associated mostly with its expensiveness and authenticity, whereas the coolness of performing a behaviour is associated mostly with rebellion (Fitton et al., 2012). The association of cool with authenticity in the study is also aligned with other studies that associate cool with uniqueness and originality (e.g., Rahman, 2013; Sundar et al., 2014). However, the association of cool with expensiveness is difficult to align with an understanding of the concept from other studies. A subcultural perspective may provide a possible explanation. That is, cool is related to a form of subcultural capital based on 'insider knowledge', which may be difficult to maintain when cool undergoes mass marketing (Belk et al., 2010; Nancarrow et al., 2002). 'Expensiveness' may provide consumers the opportunity to create an alternative form of subcultural capital based on exclusivity of the relevant cool symbols such as products and brands.

Rahman (2013) examines the linguistic use of the term cool among young consumers. Using associative group analysis, he identifies seven themes: fashionable; amazing; unique; sophisticated; eye-catching; entertaining; and composed, as relevant to the use of the term 'cool' (Rahman, 2013). 'Cool' is a common term of appreciation in linguistic use and consequently the study revealed that a host of other appreciative terms are associated with cool. Referring to the “watering down” of cool through marketing, Sundar et al. (2014, p. 170) focuses on the “strongest” perception of the idea by “ignoring” the linguistic use of cool. However, Belk et al. (2010, pp. 185-186) state that the meaning of cool remains “largely intact”, albeit subject to changes through its context-specific uses and permeation in different cultures. The study by Rahman (2013) indicates that some associations of ‘distilled’ cool are retained in the ‘diluted’ version of cool. For example, unique, composed, and eye-catching are relevant to the originality, camouflage of emotions, and attractiveness associated with cool in other studies (e.g., Belk et al., 2010; Dar-Nimrod et al., 2012; Sundar et al., 2014).

Palla et al. (2004) use qualitative interviews of consumers from South America to identify the characteristics of cool brands. They suggest that brand coolness can be explained through six dimensions: creativity; differentiation; authenticity; vanguard; irreverence; and dynamism (Palla et al., 2004). These associations are coherent with the understanding of cool from other studies. Expressions and symbols need constant updating to remain cool, indicating the dynamic nature of cool. The associations of cool with differentiation, authenticity, and irreverence aligns with the findings from other studies where cool is found to be unique, original, and rebellious (Belk et al., 2010; Fitton et al., 2012; Rahman, 2013; Southgate, 2003b; Sundar et al., 2014). Creativity can facilitate the differentiation and uniqueness that is required in cool. Cool, in its attempt to camouflage emotions, also needs to be creative in expressing rebellion. However, the association of cool with ‘vanguard’ deserves analysis. Cool’s association with camouflage and elusiveness indicates that a cool individual avoids taking leadership in mainstream society or consumer culture. The association of cool with vanguard may rather be explained by the role a cool individual takes in being creative within his or her own subcultural network (Belk et al., 2010; Southgate, 2003b).

The above discussion reveals that the context-specific understandings of cool, when integrated, reveal a set of emergent themes that are relevant to cool. Identifying these themes across different contexts may provide a holistic understanding of cool. It is also useful to briefly discuss the history of cool before discussing these themes in more depth as this can help understand the development of different conceptualisations of cool over time.

1.3 A brief history of cool

The literature on cool indicates several propositions regarding the origins of cool. These propositions include: Post-French Revolution aristocrats; Italian courtiers of the Renaissance; nineteenth century romance poets; Anatolian Turkish merchants; the proper English gentleman; the Japanese Samurai; Tokyo youth cults; and tribes from fifteenth century Africa (Leland, 2009; MacAdams, 2001; Major, 1994; Majors and Billson, 1993; Pountain and Robins, 2000; Richie, 2003; Thompson, 1983). However, after considering these alternative hypotheses, Belk et al. (2010) assert that the origin of cool is linked to the 'Ibo' and 'Yaruba' people from Western Africa in the 1400s, specifically from the area currently known as Nigeria (Belk et al., 2010; Thompson, 1973). Cool is related to the concept of 'Itutu', which was a philosophical and spiritual concept in these tribes. It contained meanings of control, composure, detachment, beauty, and inner peace (Gurrieri, 2009; Thompson, 1973). 'Itutu' can be summarised as "grace under pressure" (Belk et al., 2010; Thompson, 1973, p. 16). Furthermore, 'hip', 'jive' and 'dig' – which are a few closely linked terms to cool – can be traced back to the eighteenth century, to the location of present day Senegal (Belk et al., 2010; Major, 1994). 'Hepi' meaning 'to see', 'hipi' meaning 'to open one's eyes', 'jev' meaning 'talk falsely', and 'dega' meaning 'to understand' are words that have close relations to the contemporary understanding of cool (Belk et al., 2010; Southgate, 2003b).

The language and meanings relating to cool came from Africa to America as a result of the slave trade during the eighteenth and nineteenth centuries. The contemporary conception of cool subsequently grew out of African-American culture (Belk et al., 2010). Contemporary cool can be specifically traced back to the well-groomed African-American jazz musicians of the 1920s, who acted as symbols of empowerment and confidence to the members of their community (Belk et al., 2010; Bird and Tapp, 2008; Nancarrow et al., 2002). Cool provided aspirational value to a marginalised African-American community, where it was associated with self-development and gaining competence. Cool thus helped members of the community to overcome their insecurity (Nancarrow et al., 2002). Some of the cool jazz musicians led lifestyles that included alcohol and drug abuse, and consequently these behaviours became somewhat associated with cool (Bird and Tapp, 2008; Nancarrow et al., 2002). This origin of cool also explains the association of the concept with empowerment and attractiveness. More importantly, the jazz musicians created the association of cool with composed subversion, which is a central theme of the concept today.

A group of Caucasian musicians and audiences of the time was attracted to the cool confidence of the African-American musicians (Belk et al., 2010). The detachment from a restrictive society that these musicians portrayed intrigued the subgroup of the mainstream Caucasian audience (Belk et al., 2010). It provided this group with an understanding of composed subversion and related expressions of cool, which was exclusive and unknown to the mainstream audience. The concept of cool could have thus become associated with exclusive insider knowledge of subcultural trends. Today the concept of cool is frequently associated with an exclusive knowledge of emerging trends that serves as subcultural capital within cool groups (Bird and Tapp, 2008; Bourdieu, 1984; Nancarrow et al., 2002).

During the inhibiting atmosphere of post-World War America in the 1950s, a diverse audience embraced the rebellious composure and detachment commonly associated with cool through blues, rock and roll, and motorcycle gangs (Belk et al., 2010; Bird and Tapp, 2008). Cool subsequently became associated with hipster subculture (Belk et al., 2010; Gerber and Geiman, 2012; Southgate, 2003a). This period also saw growing sympathy amongst segments within American society towards the rebellious ideas of Che Guevara and the Black Panthers, which have sometimes been linked with cool (Belk et al., 2010). In the 1960s and 1970s, liberal movements such as the civil rights movement and the sexual revolution also aligned with the rebellious nature of cool, and cool made its way to a larger audience through ‘hippy’ culture (Frank, 1998). These events associated cool with individuality, fusionism, autonomy, and social justice, and reinforced its associations with empowerment, enlightenment, and rebellion.

Marketers soon realised the growing influence of this phenomenon on certain segments, and during the late 1960s started using cool symbols, namely African-American subcultural symbols, for marketing their brands. Consequently, basketball accessories, rap music, and hip-hop music were promoted as expressions of cool (Belk et al., 2010; Saxton, 2005). Around the same time, American brands entered markets across the globe and marketers actively contributed to the globalisation of cool (Bookman, 2013). The cool brands that targeted young consumers in the USA were then being marketed in a similar fashion to consumers in other countries. With the marketing of cool to a wider audience, cool expressions became adopted by an increasing number of consumers throughout the 1970s. The African-American expressions that were previously cool gradually became mainstream, and consequently uncool (Saxton, 2005). Brands were losing their subcultural capital, which is based on insider knowledge and required for being cool. Furthermore, the globalisation of cool through marketing that took place during this period associated the concept with consumerism, materialism, and cosmopolitanism (Bookman, 2013; Frank, 1998). These associations are not necessarily aligned with the original concept of cool, and as a result the concept became diluted.

As a result, marketers from the USA turned to different subcultures in the 1980s in search of new cool symbols and expressions. Some marketers started embedding expressions of Hispanic American culture, such as Latin rap music and Latin hip-hop music, in their marketing activities, to revitalise the coolness of their brands (Gaskins, 2003; Kirkland and Jackson, 2009; Oboler, 2005; Whylly, 2008). These Hispanic American expressions served as the symbols of a marginalised subculture, similar to the previously used African-American symbols, and some consumers began associating these with cool. The concept of cool thus became associated with the heritage of minority subcultures and authenticity. During the 1970s and 1980s, marketers also gained an understanding of the transient nature of cool expressions and focused resources on a process of seeking and adding subcultural symbols to maintain the coolness of their brands. Consequently, coolhunting was born in the 1990s, which developed in the following years to become a thriving industry (Gurrieri, 2009).

In the 1990s, cool American entertainment media such as MTV, which targeted young consumers, were reaching a global audience (Saxton, 2005; Sbarbaro, Van den Bergh, Veris, and De Ruyck, 2011). These consumers were now informed more rapidly about trends across the globe and consequently could form individual opinions about the world without being restricted by localised media. As the MTV and other similar entertainment media often promoted hipster lifestyles, cool saw a revival of the hipsters during this time. The comeback of the hipster subculture, and its rekindled association with cool, provided consumers with an opportunity to uphold individuality in an age of mass production (Saxton, 2005). Hipster subculture is often related to pastiche and fusionism, and consequently consumers could now mix and match accessories and product components for cool self-expression (Lanham, 2008;

Saxton, 2005; Stewart, 2008). These events allowed cool to reinforce its associations with countering mainstream norms, self-expression, and individuality.

In the twenty-first century, cool started becoming associated with technological innovation. Brands such as Apple and Napster owe their initial coolness to the idea of breaking industry norms and rebelling against the capitalist exploits of dominant corporations (Belk et al., 2010). In addition, the advancement of individually consumable technology and communication technology has empowered young consumers. Platforms such as Facebook, YouTube, Instagram, and Flickr provide individuals with an easily accessible medium to portray their thoughts, consumptions, and self-expressive lifestyles to an audience (Heinonen, 2011; Livingstone, 2008). As a result, young consumers today can express their own perceptions to, and communicate with, others outside their real-life social networks. Social media also enables instant feedback on these self-expressions from an audience (Fitton et al., 2012; Heinonen, 2011; Mangold and Faulds, 2009). Cool has thus evolved in the new millennium by strongly reinforcing its association with rebellion, deviating from norms, and self-expression.

In summary, cool evolved from the African-American jazz musicians of 1920s, through the liberal movement of the 1960s, the consumerism of the 1980s, and the recent era of technological advancements, to reach its contemporary conception. Discussing the history of cool allows comprehension of the nature of the associations of cool with themes such as subversion, self-expression, pro-social, elusiveness, and attractiveness. The conceptual foundations of cool that emerge from a review of the literature on cool are presented next.

1.4 Conceptual foundations of cool

Reviewing the history of cool, and analysing the extant literature on cool across disciplines, helps to identify the conceptual foundations of cool and key dimensions commonly associated with cool. A comprehensive literature review conducted in the first study (presented in Chapter 3) indicates seven recurrently emerging themes of cool: deviating from norms, subversive, evasive, attractive, self-expressive, pro-social, and indicative of maturity. These associated dimensions of cool are briefly discussed below. A more expansive discussion on the conceptual foundations of cool and dimensions of cool is offered in Chapter 3: A conceptual framework of 'cool'.

Deviating from norms

Cool deviates from mainstream norms. In this sense, an identity can attain cool by being different from mainstream identities in key aspects. The experimental study by Warren and Campbell (2014) on brand visuals and product packaging proposes that deviating from the norm is the single most important characteristic of cool. Researchers have used terms such as extraordinary, unconventional, exclusive, and separatist, which are consistent with this theme, to describe cool (Belk et al., 2010; Bird and Tapp, 2008; Frank, 1998; Gurrieri, 2009; Kirkland and Jackson, 2009; Nancarrow et al., 2002; Southgate, 2003b). This theme is also relevant to the association of creativity and innovativeness with cool. Creativity and innovation are terms used to indicate phenomena that are new or have not been experienced before, for different type of identities, that is, individuals and technology respectively. Hence, creativity and innovativeness innately deviate from norms.

Subversive

Another key theme that emerges in the literature on cool is subversion. Subversion entails a sense of superiority that is gained through proving others insufficient or illegitimate. Cool individuals consider themselves superior to others, that is, the followers of mainstream norms (Belk et al., 2010; Kirkland and Jackson, 2009; Nancarrow et al., 2002; O'Donnell and Wardlow, 2000). Subversion may be expressed by non-conformity and a rebellion against the mainstream norms of consumption, society, or political ideology (Belk et al., 2010; Bird and Tapp, 2008; Frank, 1998; Goffman and Joy, 2007; Hastings, MacFadyen, and Stead, 1997; Heath and Potter, 2005; Hemetsberger, 2006; Holbrook, 1986; MacAdams, 2001; Pountain and Robins, 2000). Fuller and Thygesen (1997) suggest that cool brands that gain mainstream acceptance over time need to focus on creative ways to associate with subversion to maintain a cool image.

Evasive

Cool exists within mainstream society, but requires the subversion of mainstream norms. Cool hence needs to be evasive and not easily accessible. Evasiveness enables cool to coexist with mainstream society. This evasiveness of cool is evident in different forms. Cool identities may be carefully managed to maintain a low profile, or may camouflage emotions

(Belk et al., 2010; Bird and Tapp, 2008; Danesi, 1994; Nancarrow et al., 2002; Pountain and Robins, 2000). Cool evasiveness can take another form in which subversion is expressed in creative and indirect ways (Bird and Tapp, 2008; Dar-Nimrod et al., 2012; Kirkland and Jackson, 2009; Nancarrow et al., 2002). Expressing subversion of mainstream norms in creative and indirect ways, that is, through irony, allows cool to avoid creating discomfort in a mainstream audience.

Attractive

Research has consistently identified attractiveness as an important aspect of cool (Belk et al., 2010; Culén and Gasparini, 2012; Dar-Nimrod et al., 2012; Rahman, 2013; Sundar et al., 2014; Warren and Campbell, 2014). However, the attractiveness and the desirability of cool should not be confused. Attractiveness indicates an innate characteristic of an identity to appeal to and intrigue an audience, whereas desirability is a consequence of cool that indicates a positive psychological response. The attractiveness of cool may emerge from an identity's intelligence, innovativeness, ability to entertain, superior aesthetics, or superior quality (Bookman, 2013; Dar-Nimrod et al., 2012; Kirkland and Jackson, 2009; Nancarrow et al., 2002; Southgate, 2003b; Sundar et al., 2014; Thompson, 1973; Whylly, 2008).

Self-expressive

Self-expression allows cool to be unique, original, and authentic. For example, O'Donnell and Wardlow (2000) state that individuals develop the need for cool self-expression during adolescence, when they desire to express an independent identity separate from their family identity. A cool deviation from norm thus results from a need for self-expression, where an individual is confident and passionate in expressing his or her identity in ways that differ from the mainstream norms. These expressions can be through consumption, symbolic objects, appearance, language, gestures, and other forms of behaviour (Allison, 2009; Belk et al., 2010; Bookman, 2013; Cullen, 2010; Kirkland and Jackson, 2009; Nancarrow et al., 2002; Plumridge, Fitzgerald, and Abel, 2002; Warren and Campbell, 2014). Hence an individual's cool deviation from norms is meaningful for the individual.

Pro-social

The history of cool indicates its association with pro-social beliefs, as cool has been associated throughout history with social movements driven by empowerment, self-development, freedom of speech, and self-expression. The rules and regulations of a society are governed by the norms and beliefs of the majority. Therefore, members of minority subcultures may see these rules and regulations as irrelevant and unjust. Cool allows minority subcultures to form alternatives to the class-based status system and is thus associated with social justice (Belk et al., 2010; Heath and Potter, 2005; Warren and Campbell, 2014). Cool subversion and deviations from norms are thus justified by its pro-social nature. Hence, cool rebels against illegitimate mainstream norms (Warren and Campbell, 2014).

Indicative of maturity

Cool identities portray mental maturity. O'Donnell and Wardlow (2000) state that the appreciation of cool develops in individuals during adolescence, when they feel the need to develop independent mature identities. The mental maturity of an individual may be experienced by an audience through evidence of enlightenment and social skills. Controlling overt display of emotions and using indirect but socially acceptable ways to express subversion are such indications of mental maturity (Belk et al., 2010; Dar-Nimrod et al., 2012; Gurrieri, 2009; Nancarrow et al., 2002). Adolescents' mimicking of adult behaviours such as smoking and alcohol consumption may be motivated by the need to portray their maturity.

1.5 Contextualising cool for marketing

The seven themes discussed above provide some conceptual understanding of cool as a concept. However, the discussion on definitions of cool in Section 1.2 identifies that, even from a marketing perspective, there are different contexts in which cool can be defined. When explicating and defining a marketing concept, it is imperative that a researcher specifies the domain or context as one that the researcher believes is the most relevant for the concept (Churchill, 1979; Gilliam and Voss, 2013; Rossiter, 2002). Defining cool for marketing requires specifying the domain in a way that can capture the distinctive aspects of the concept beyond the everyday use of the term. Yet, to be useful, the specified domain to define cool should be relevant to most marketing contexts. Therefore, when studying cool it is important to specify the domain or context in which it is to be examined.

Cool is relevant when describing any kind of entity, such as a person, an object, a place, or an art (Rahman, 2013; Sundar et al., 2014; Warren and Campbell, 2014). From a marketing perspective, a brand can be used to refer to any of these specific entities (De Chernatony and Dall'Olmo Riley, 1998; Kotler and Armstrong, 2010; Stern, 2006). Brands thus deserve consideration as a domain in which to explore cool. A brand sums up everything consumers associate with the brand name in their minds (Dobni and Zinkhan, 1990; Newman, 1957). This includes marketing activities and their outcomes including brand visuals, packaging, and advertising to which consumers are exposed. Specifying the domain of brands for defining cool can be relevant to any marketing activity pertaining to a brand. Furthermore, explicating and defining cool in the context of brands may allow the understanding to be extended in other relevant contexts, such as for brand identity, brand personality, brand equity, advertising, and the visual representations of brands. Therefore, it is appropriate to specify the domain to brands for defining cool from a marketing perspective.

As discussed in Section 1.2 on definitions of cool, Sriramachandramurthy (2009) presents an empirically tested model of coolness for technology brands. However, he outlines certain limitations of the study that make it less useful as a model for brand coolness in generic terms. Sriramachandramurthy (2009, p. 103) highlights that the focus of his study is only on technology brands and suggests future studies incorporate brands across product categories. Sriramachandramurthy (2009, p. 4) states that technology brands are considered cool “in general”. A study to define brand coolness in generic terms should incorporate both cool and uncool brands. Including brands from across product categories and from different levels of coolness may elicit higher variability in consumer responses on brands’ coolness characteristics, that is, the variables of interest. Researchers suggest such higher variability is useful for conducting appropriate statistical analyses (Diamantopoulos and Winklhofer, 2001; Mowen and Voss, 2008; Muthén and Kaplan, 1985). Moreover, studying brand coolness across product categories is important as “consumers do not recognise category divides” regarding cool imagery (Fuller and Thygesen, 1997, p. 4).

Sriramachandramurthy (2009, p. 104) also mentions that a limitation of his study is that it focuses on consumers from only a specific segment. The study involves young consumers and is partly dependent on university students (Sriramachandramurthy, 2009). Consumers of cool brands include different segments beyond only young consumers, and cool is contingent on audience evaluations (Belk et al., 2010; Nancarrow et al., 2002; Sundar et al., 2014; Warren and Campbell, 2014). Therefore, in order to explicate and measure brand coolness, it is important to incorporate consumers from different segments. Reviewing the extant marketing literature on cool identifies that there is a gap in knowledge that generates a need for empirical models of brand coolness that are validated by statistical analysis, and are relevant across product categories. Research to develop a generic empirical model of brand coolness should include responses from different consumer segments and both cool and uncool brands from across product categories.

Researchers suggest that the coolness of a brand can positively influence a consumer's trust, attitudes towards the brand, purchase intention, loyalty, and the willingness to pay a price premium for the brand (Bird and Tapp, 2008; Bookman, 2013; Cullen, 2010; de Souza, 1997; Im et al., 2015; Knobil, 2002; Sriramachandramurthy, 2009). Brand marketing literature identifies that all of these responses are positively affected by superior brand equity (Aaker, 1991; Cobb-Walgren, Ruble, and Donthu, 1995; Keller, 1993; Lassar, Mittal, and Sharma, 1995). Brand equity, a key concept in brand management, is defined as the enhanced value and desirability that a brand confers on a product. Brand equity provides a brand the differential advantage that enables it to generate greater volume and margins, and brand managers strive to enhance the equity of their brands (Aaker, 1991; Cobb-Walgren et al., 1995; Lassar et al., 1995). Thus, brand coolness may be positively related to brand equity. However, higher brand equity is related to a higher level of consumers' familiarity and awareness of the brand, while higher awareness and familiarity decreases the coolness of a symbol (Aaker, 1991; Belk et al., 2010; Gurrieri, 2009; Keller, 1993; Nancarrow et al., 2002). Therefore, the relationship between brand coolness and brand equity deserves examination.

1.6 Research aims and questions

The previous sections of this introduction chapter have provided an overview of cool (including its main dimensions and history), and has identified key gaps in the literature. This thesis seeks to address these gaps in the marketing literature regarding conceptual understanding of cool and how to measure cool in a brand marketing context. In particular, the purpose of this thesis is to conceptualise cool in the context of brands by developing an empirically tested model of brand coolness that can be measured using a scale. To achieve this, the research project aims to identify the key dimensions of cool to assist in conceptualising brand coolness, and to develop and validate a scale for measuring brand cool. Within the stated aims for the research, the project focuses on answering the following four research questions.

1. What are the key dimensions of the concept of cool?
2. What dimensions are relevant when measuring brand coolness?
3. How can the coolness of a brand be measured?
4. What is the relationship between brand coolness and brand equity?

1.7 Brief outline of the research methodology

To address the research questions of this thesis, a mixed methods study design using quantitative and qualitative methods was used. The research design and methods are briefly discussed here, and are explained in further detail in Chapter 2: Methodology and research design. Three linked studies were undertaken to answer the research questions.

Study 1 aimed to identify the key dimensions of the concept of cool. A systematic literature search was conducted across six academic journal databases and for grey literature to identify papers on cool. After screening the returned records in several stages, a total 214 papers from across disciplines including marketing, business, psychology, sociology, and engineering and design, were identified. Associations and characteristics of cool from these papers were then listed by reviewing the papers and through document analysis. These were then refined through triangulation of sources (conceptual papers, qualitative studies, and quantitative studies). A thematic analysis of the listed items was conducted next. The thematic analysis involved collapsing the items into theoretically coherent themes. Consultations with marketing experts then helped finalise the conceptual framework of cool and the relevant dimensions of the concept of cool that were developed from the literature review study. The findings from Study 1 are presented in Chapter 3: A conceptual framework of 'cool'.

Study 2 aimed to qualitatively explore, and generate items for a scale to measure, brand coolness. Semi-structured interviews and open-ended surveys with 12 marketing experts and

10 focus group discussions involving 47 expert consumers were conducted to record their understanding and narratives regarding cool brands. Analysis of qualitative data from Study 2 permitted consolidating a list of attributes of cool brands that were later considered for the development of a scale in Study 3. Additional qualitative analysis of the data from the consumer group discussions was conducted following procedures of naturalistic inquiry and grounded theory building. First, the transcribed recordings were coded using axial and open coding. Using the conceptual framework of cool as the theoretical framework, they were then analysed using deductive thematic analysis. These comprised descriptions of consumer engagements with cool brands and led to the formation of first-order codes. Then the analysis involved collapsing the codes to higher-level nodes. These nodes were refined through triangulation of sources (focus groups, open-ended surveys, and literature). Through a recursive process the second order themes were next organised into overarching dimensions. Member checks on the thematic analysis were conducted with a selection of 16 study participants based on availability. The findings from the analyses are presented in Chapter 4: Findings from qualitative interview study.

The third and final study aimed to develop a scale to measure brand coolness and to examine the relationship between brand coolness and brand equity. The scale was developed through five stages of research and involved collecting survey data from Australian consumers sampled from online consumer panels. This involved administering four separate online surveys and associated statistical analyses based on psychometric theory, which were conducted at each stage to develop a scale to measure brand coolness. At stage 1, the items generated from the qualitative study were screened using reviews from a panel of experts to form an initial scale. Stage 2 involved purifying the scale and assessing the dimensionality of brand coolness by conducting exploratory factor analysis of the data collected on the initial scale through the first survey. Stage 3 involved validating the measurement model by conducting confirmatory factor analysis of the data collected on the refined scale through the second online survey. In Stage 4 data collected on the brand cool scale and scales on relevant other constructs through the third online survey were analysed to ascertain the convergent, discriminant, and concurrent validity of the scale. Finally, in Stage 5, data was collected on the brand cool scale in two online survey phases with an interval of four weeks, and then analysed to assess the test-retest reliability of the scale. The findings from the third study are presented in Chapter 5: A scale to measure brand cool.

1.8 Thesis structure

This thesis consists of six chapters, which includes three papers that were developed from the research project.

The current chapter, Chapter 1: Introduction and thesis overview, introduces the concept of cool, explains its relevance to marketing, presents a theoretical framework for the research, and outlines the aims of the project.

Chapter 2: Methodology and research design, presents a detailed discussion of the research design and methodology used in each of the three studies of the research project. It also discusses the rationale for using the specific methods for the studies.

Chapter 3: A conceptual framework of 'cool', includes the first paper from this thesis. This paper presents a conceptual framework developed from a systematic literature review and the subsequent thematic analysis, and discusses the relevance of cool beyond commercial marketing, and for developing pro-social brands in social marketing. This paper was published in the *Journal of Social Marketing* (Mohiuddin et al., 2016).

Chapter 4: Findings from qualitative interview study, presents the second paper from the thesis. The second paper explores cool identities from the perspectives of consumers through a qualitative study. The paper was originally presented at the Australia and New Zealand Marketing Academy (ANZMAC) Conference 2016 (Mohiuddin and Gordon, 2016). However, based on the feedback from conference and thesis examiners, the paper was modified. The modified version of the paper in included in the thesis.

Chapter 5: A scale to measure brand cool, presents the third and final paper from the research. This paper presents a scale to measure brand coolness, which was developed and validated in this research project. This paper has been submitted to the *Journal of the Academy of Marketing Science* for review.

Finally, Chapter 6: Discussions and conclusion, discusses the overall findings and theoretical and practical contributions of the thesis, indicates future research opportunities, and draw conclusion of the thesis.

CHAPTER 2: METHODOLOGY AND RESEARCH DESIGN

2.1 Chapter introduction

Chapter 1 discussed the need for exploring, explicating, and measuring brand coolness, and presented the research questions. Chapter 2 outlines the research design and methodological approach utilised in this thesis to address those research questions. This chapter begins by presenting the research-related philosophy and paradigm that underpins this thesis. This provides the premise to then discuss the research design, which comprises three studies: (1) a systematic literature review study to gain an understanding of cool from a marketing perspective; (2) a qualitative interview study to identify attributes of brand coolness from the perspectives of consumers and experts; and (3) a scale development study to develop a valid and reliable scale to measure brand coolness. The methods utilised in each of these studies is next elaborated sequentially in the remainder of the chapter.

2.2 Research paradigms

A research paradigm is a set of common beliefs and agreements shared between scientists regarding how problems should be understood and addressed (Guba and Lincoln, 1994; Kuhn, 1970). It outlines the nature of the world that a researcher studies, the place of the researcher and the study within that world, and the diverse relationships among the constituent parts of that world (Kuhn, 1970). Each paradigm is essentially a philosophical framework that prescribes the theories, laws, and generalisations it supports (Kuhn, 1970). Research paradigms thus define for the researcher the boundaries of what can be included, and what need to be excluded, in legitimate research. For example, research in the physical sciences traditionally follows a positivist paradigm (Halfpenny, 2001; Sayer, 2000; Tavakol and Zeinaloo, 2004). Identifying an appropriate paradigm before outlining the research methods allows a researcher to leverage the set of theories and methodologies supported by the paradigm (Guba and Lincoln, 1994). However, to identify an appropriate paradigm for research in disciplines such as marketing, management, and social sciences, a researcher has to consider multiple research paradigms that may inform the research (Goulding, 1999, 2005; Johnson and Onwuegbuzie, 2004; Kara, 2015; Morgan, 2014). While there are many research paradigms, the most prominent and relevant across these disciplines are positivism, constructivism, and pragmatism (Corbetta, 2003; Gordon, 2002; Goulding, 1999; Hughes and Sharrock, 1997; Sayer, 2000; Weber, 2017).

Positivism is one of the most prominent research paradigms across disciplines (Hasan, 2016). It proposes that the world is governed by underlying general laws that represent objective reality or true knowledge, which research should strive to unearth by logically interpreting the information derived through sensory experiences (Corbetta, 2003; Crotty, 1998; James, 1975; Johnson, Onwuegbuzie, and Turner, 2007; Macionis and Gerber, 2010). Positivism holds that that society operates according to general laws like the physical world, and that all things including social phenomena are measurable and quantifiable (Corbetta, 2003; Crotty, 1998; Macionis and Gerber, 2010). Constructivism differs from the positivist approach of an absolute truth by proposing that multiple realities are constructed through interaction between humans and the world around them, and disseminated within a social context (Corbetta, 2003; Crotty, 1998; Denzin and Lincoln, 2011). For assessing multiple contextual and situational realities, it demonstrates a preference for interpretive and qualitative research methodologies (Crotty, 1998; Denzin and Lincoln, 2011). Constructivism, a prominent paradigm for research in sociology, provides valuable insight into the multiplicity of perceptions regarding a concept, but limits a researcher's ability to draw generalisations from a study (Crotty, 1998; Denzin and Lincoln, 2011; Guba and Lincoln, 1994; Weber, 2017). Pragmatism avoids the perpetual debate between finding an absolute truth or multiple realities which exists between positivism and constructivism, and focuses on human problem solving (Corbetta, 2003; Crotty, 1998; Johnson and Onwuegbuzie, 2004; Powell, 2001). Pragmatism proposes conducting research and gaining knowledge to find solutions that are useful (Johnson and Onwuegbuzie, 2004; Powell, 2001). It thus focuses on developing context specific theories from practice using empirical methodologies, and putting those theories back into practice (Morgan, 2014). Beginning in the 1870s, pragmatism is a relatively recent paradigm and is useful for research across disciplines (Biesta and Burbules, 2003).

2.2.1 Comparing positivism, constructivism, and pragmatism

While each paradigm equips a researcher to scientifically unearth knowledge about a phenomenon, philosophies underlying different paradigms vary and affect a paradigm's compatibility with different research designs. Here the three paradigms are compared and contrasted to determine which is the most appropriate to inform this thesis. Consistent with existing recommendations, this is facilitated by considering them on ontological, epistemological, and methodological bases (Corbetta, 2003; Guba and Lincoln, 1994). More specifically, this involves consideration of three questions that are discussed in more detail below (Guba and Lincoln, 1994).

1. The ontological question – what is the form and nature of reality in a research?
2. The epistemological question – what are the different forms of knowledge about that reality, and the relationship between the inquirer and inquired?
3. The methodological question – what tools are used to know that reality in a research?

Ontology in research refers to a researcher's view of the world and the interrelations of its constituent parts (Devaux and Lamanna, 2009; Gray, 2013). Etymologically the word 'ontology' combines two Greek terms: 'onto' from 'on' meaning 'being' or existence, and 'logos' meaning 'logical discourse', to translate to 'the logical discourse of existence' (Devaux and Lamanna, 2009; Gray, 2013). Ontology attempts to explain the fundamental nature of existence and the world, and is regarded as part of metaphysics, which is a major branch of philosophy (Devaux and Lamanna, 2009; Gale, 2008). Two dominant ontological perspectives that underlie research paradigms are: the Parmenidean ontology of 'being', and the Heraclitean ontology of 'becoming'. Parmenides, an ancient Greek philosopher (c.535–c.445 BC), proposed that existence is eternal and is what can be conceived of thought, or created, or possessed (Curd, 2011). His ontological perspective, that is the Parmenidean ontology suggests that the creation in its entirety is eternal, uniform and immutable, and that everything that can be apprehended is part of a single entity (Le Poidevin, Andrew, Peter, and Cameron, 2009). This has historically been the dominant ontological perspective of most Western philosophy (Gray, 2013). On the other hand, Heraclitean ontology emphasises a pluralistic world that is ever changing (Gray, 2013). It was proposed by the Greek philosopher Heraclitus (c.535–c.575 BC), who suggested that the world is constantly changing (Le Poidevin et al., 2009). There are thus innate tensions between the Permenidean and the Heraclitean ontological perspectives. Positivism is aligned with the Parmenidean ontology, whereas constructivism is aligned with the Heraclitean ontology (Corbetta, 2003; Crotty, 1998; Denzin and Lincoln, 2011; Macionis and Gerber, 2010). Pragmatism, however, bypasses the ontological debate and avoids taking an ontological perspective by focusing on practical application of knowledge (Corbetta, 2003; Crotty, 1998; Johnson and Onwuegbuzie, 2004; Powell, 2001).

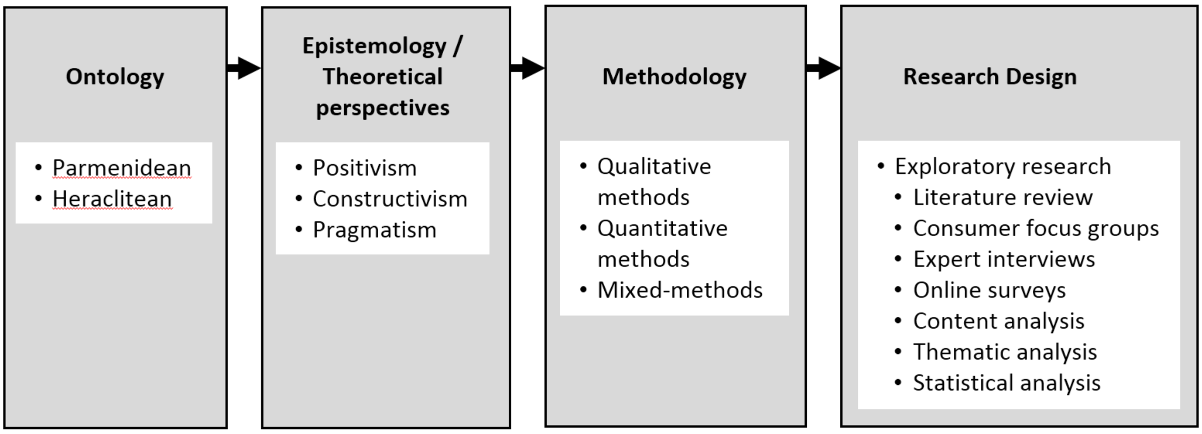
Epistemology refers to the nature of knowledge, its justification, and the manner in which knowledge is gained (Miller and Brewer, 2003; Suchting, 2006). Etymologically the word 'epistemology' emerges from the Greek word 'episteme' meaning 'knowledge', to translate to 'the logical discourse of knowledge' (Suchting, 2006). Epistemology is a branch of philosophy that examines and discusses the origin, nature, methods, and limits of human knowledge, and determines what truth or reality can be known (Miller and Brewer, 2003; Suchting, 2006; Weber, 2017). Three relevant epistemological perspectives – positivism, constructivism, and pragmatism – were considered for this research. As positivism assumes the existence of a singular objective truth, it strives to find that underlying truth (James, 1975; Johnson et al., 2007). Contrary to positivism, constructivism holds that research can only unearth multiple realities that emerge from different social contexts about a phenomenon (Crotty, 1998; Weber, 2017). Constructivism maintains that these multiple realities are accurate by different interpretations of research data, and form human knowledge (Crotty, 1998). On the other hand, pragmatism rejects the idea that knowledge should only describe, represent, or mirror reality (Biesta and Burbules, 2003; Gutek, 1997; James, 1975; Morgan, 2014). Pragmatism maintains that knowledge is an instrument for prediction, problem solving, and action (Biesta and Burbules, 2003).

Methodology as a word etymologically emerges from the Greek term 'methodos'. It combines two words: 'meta' meaning 'pursuit of' and 'hodos' meaning 'a system', to mean 'way of doing' (Miller and Brewer, 2003). Two primary types of methodologies are relevant for research in marketing, management, and social sciences: quantitative methods and qualitative methods (Belk, 2007; Kaplan, 2004; Kothari, 2004; Malhotra, 2007; Malhotra, Peterson, and Kleiser, 1999). Quantitative methods allow researchers to measure primarily observable variables and statistically understand the relationship among these variables (Kaplan, 2004; Malhotra, 2007; Miller and Brewer, 2003). On the other hand, researchers use qualitative methods to focus on understanding unobservable abstract phenomena and interpret those phenomena (Belk, 2007; Malhotra, 2007; Miller and Brewer, 2003). Mixed methods, a third methodological approach that combines both these types of methods, has gained more prominence in marketing and social sciences to tackle research that cannot be appropriately carried out by focusing only on either quantitative or qualitative methods (Bahl and Milne, 2007; Harrison and Reilly, 2011; Johnson et al., 2007). Each paradigm supports a set of research methods that suit its ontological and epistemological philosophies (Guba and Lincoln, 1994). Positivism emphasises quantitative methods and constructivism emphasises qualitative methods (Belk, 2007; Guba and Lincoln, 1994; Miller and Brewer, 2003). Pragmatism emphasises mixed methods, and supports any methodology to arrive at conclusions that can be useful in a practical sense (Johnson and Onwuegbuzie, 2004; Johnson et al., 2007; Sayer, 2000; Weber, 2017).

2.2.2 Adopting a pragmatic approach

Considering the epistemological perspectives enables appreciating the suitability of adopting a pragmatic approach for this research (see Fig 2.1). Cool is a socially constructed concept that has been defined differently in different contexts such as: a personality trait, a cultural phenomenon, and a set of product attributes (Mohiuddin et al., 2016). This pluralistic view is consistent with constructivism, which is aligned with the Heraclitean ontology. However, the present study aims to develop a model of cool in the context of brands, which assumes that brand coolness follows a generalisable universal rules. This perspective is consistent with positivism, which is aligned with the Parmenidean ontology. As the two prominent epistemologies contradict each other but can both be relevant for this research, a paradigmatic approach that facilitates viewing knowledge beyond these prominent epistemologies is needed for the research. Pragmatism, with its emphasis on developing instruments for prediction, problem solving, and action, allows for developing generalisable theories for specific contexts. Therefore, a pragmatic approach is suitable for the research.

Considering the methodological perspective further supports the suitability of pragmatism for the research. Addressing the research questions for this thesis requires the application of a combination of qualitative and quantitative methods. A systematic literature review to develop a conceptual framework, and discussions with consumers and experts to generate scale items require using qualitative methods. On the other hand, developing a statistically sound scale requires the use of quantitative methods (Bernstein and Nunnally, 1994; Chaffee, 1991; Churchill, 1979; DeVellis, 2016; Edwards and Bagozzi, 2000). Bryman (2008) holds that it is valid for a researcher to adopt research methods cutting across research philosophies as per the research question to be answered. However, as mixed methods that combine both qualitative and quantitative methods are compatible with a pragmatic perspective, the research aligns with pragmatism. Notably, research with a pragmatic approach is guided by a research question and is not restricted by philosophical assumptions (Cresswell et al., 2003; Johnson and Onwuegbuzie, 2004).



[Source: adapted from Crotty (1998)]

Figure 2.1: Ontological, epistemological and methodological perspectives for the project

When considering different paradigmatic approaches, a researcher also needs to be aware of the paradigm with which he or she personally identifies, and which shapes the researcher's worldview (Guba and Lincoln, 1994). For this project, the researcher could personally identify with a pragmatic approach from his former professional experiences as a marketing practitioner. Consumer research in marketing practice is focused on identifying the best possible solution to a problem and towards meeting commercial objectives. This orientation of the researcher from his past experiences is consistent with a pragmatic approach. Therefore, after considering the relevant research paradigms from ontological, epistemological, methodological, and researcher identification perspectives, a pragmatic approach is adopted for this research.

2.3 Research design

A research design is a blueprint of how a research study will take place and typically outlines the methods of data collection, the instruments employed for data collection, and the means for analysing the collected data (Marczyk, DeMatteo, and Festinger, 2005; Sahu, 2013). Marketing researchers are able to choose research designs from a myriad of alternatives, such as: exploratory designs, descriptive designs, causal designs, experimental designs, and so on. (Coghlan and Brydon-Miller, 2014; Creswell and Clark, 2007; Creswell, Plano Clark, Gutmann, and Hanson, 2003; De Vaus, 2001; Glenn, 2005; Marczyk et al., 2005; Sahu, 2013; Salkind, 2010; Stake, 1995). When deciding on a research design, a researcher takes into account the paradigmatic approach for the research as it influences the suitability of available methodologies. For research from a pragmatic approach, the research design is based on the aims of the research (Johnson and Onwuegbuzie, 2004). As this thesis adopts a pragmatic approach, three categories of research designs based on research aims – exploratory research, descriptive research, and hypothesis testing research – were considered (De Vaus, 2001; Marczyk et al., 2005; Sahu, 2013; Salkind, 2010).

Exploratory research is concerned with the discovery of ideas and theories that have not completely been explored, and is flexible to enable a researcher to appropriately explore a phenomenon (De Vaus, 2001; Glenn, 2005; Marczyk et al., 2005; Sahu, 2013; Salkind, 2010). Descriptive research is concerned with descriptions of a phenomenon's characteristics (Marczyk et al., 2005; Sahu, 2013; Salkind, 2010). Hypothesis testing research is concerned with developing and testing one or more hypotheses in relation to one or more aims of a research study, provided that sound theoretical understandings regarding a phenomenon exist (Marczyk et al., 2005; Sahu, 2013; Salkind, 2010). This research focuses on exploring the concept of brand coolness on the premise that sound theoretical understanding about the concept needs to be developed. Therefore, considering the research aims, an exploratory design is appropriate for this research. A descriptive design is not appropriate as the thesis does not limit itself to describing the concept or the related phenomenon. Moreover, a descriptive design is not suitable for developing a scale, which is one of the aims of the research. On the other hand, a hypothesis testing design is not suitable for this thesis as hypothesis testing research needs to be based on sound theoretical understandings.

To address the thesis aims and questions outlined in section 1.6, this thesis is designed to consist of three studies: a systematic literature review study, a qualitative interview study, and a scale development study. Each of the three studies was designed to answer one or more of the research questions, and separate methods was used for data collection and analyses. The remainder of this chapter presents the methodology for each of the studies in detail.

2.3.1 Study 1: Systematic literature review

The first study focused on exploring cool in order to conceptualise it. For developing a preliminary understanding of cool, the seminal academic literature on cool was reviewed from a range of relevant disciplines, including marketing and social marketing (e.g., Belk et al., 2010; Bird and Tapp, 2008; Nancarrow et al., 2002), sociology and anthropology (e.g., Bookman, 2013; Scheffels, 2009; Thompson, 1973), psychology, education and health sciences (e.g., Dar-Nimrod et al., 2012; Kirkland and Jackson, 2009; Plumridge et al., 2002), and computer and information technology (e.g., Fitton et al., 2012; Sundar et al., 2014). In addition, literature on cool from non-academic sources were also reviewed (e.g., Frank, 1998; Gladwell, 1997).

2.3.1.1 Aims

The initial review of the literature indicated that a key challenge in conceptualising cool arises due to its relevance to, and study from, various contexts such as an attitude, a cultural phenomenon, a design attribute, and a personality trait. As these contexts are relevant to understanding the socially constructed conception of cool, the study aimed to develop a conceptual framework by integrating the conceptualisations of cool from these relevant contexts and domains, and gaining a holistic understanding of cool. It further aimed to define cool by identifying its key dimensions, as the concept of cool has not yet been clearly defined. Accordingly, a systematic review of the extant literature on cool across disciplines was undertaken (Moher, Liberati, Tetzlaff, and Altman, 2010; Shamseer et al., 2015). The systematic review was conducted according to the PRISMA protocol, which incorporates the best practices, and revises the less effective practices (Moher et al., 2010). Following the guidelines of the PRISMA protocol, the researcher outlined: the search strategy, the process of selecting studies, the method of data collection from the studies, and a summary of identified data (Moher et al., 2010). Next, the data was analysed to identify the key themes related to cool. These aspects of the review are outlined next.

2.3.1.2 Literature search strategy

The review of seminal articles informed the literature search strategy. The literature search strategy is summarised in Table 2.1 (p.31). The scope of the search was kept broad, and avoided any restrictions on disciplines. The search was carried out across six databases: Emerald Insight, Business Source Complete, WARC database, Scopus, Science Direct, and ProQuest Dissertation and Theses database. The relevant contexts and terms identified from the review of seminal articles were used as search terms, for example, cool, hip, hipster, market, culture, person, product, brand, design, and attitude. Combinations of these terms and truncated wildcard search terms (e.g., cool*, hip*, market*, culture*, person*, brand*) using Boolean logic (AND, OR, NOT) were used. The search was limited to publications in the English language. All available types of literature were included in the search and no date restrictions were imposed.

Table 2.1

Literature search strategy

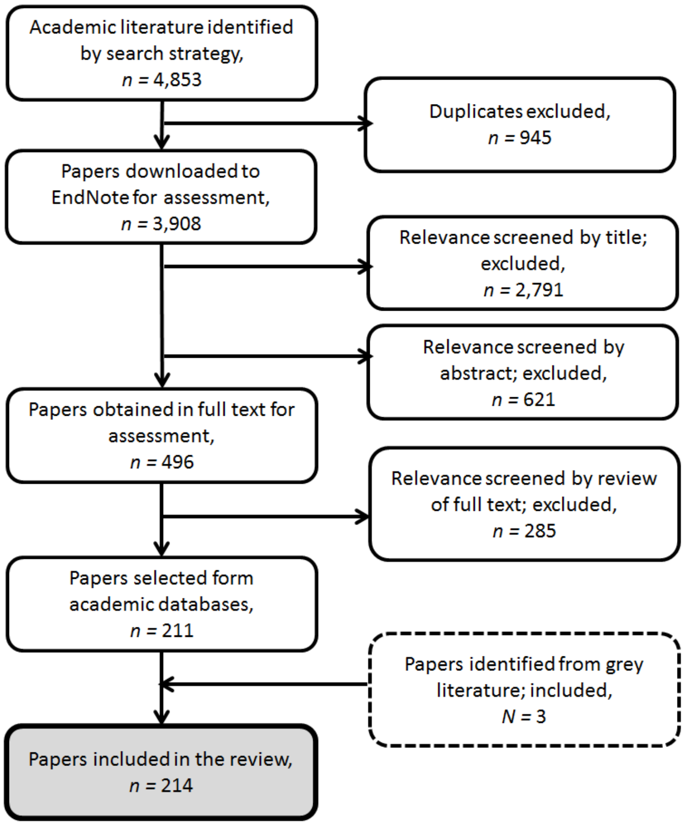
[Presented in Mohiuddin et al. (2016)]

Database	*Brief description of database*	*No. of records returned*[a]
Emerald Insight	Provides access to the full text of articles from journals, mainly in the subject area of management, marketing and consumer research	543
Business Source Complete	Offers comprehensive full text and abstracts for the most important scholarly business journals including marketing and consumer research	662
WARC (World Advertising Research Centre)	Provides access to advertising and marketing information from various sources. It includes organisations of various countries, monographs, conference papers, abstracts and the full text of various marketing journals	149
Scopus	A multidisciplinary abstract and citation database. It contains over 18,000 peer reviewed journals in the scientific, technical, medical, and social science fields	2,156
Science Direct	Contains the full text of journals and reference works, and also includes citations and abstracts of journals from life sciences, medical, technical, and physical sciences, arts, business, management, social sciences, and psychology	1,279
ProQuest Dissertations and Theses	Contains full text of accepted research theses from universities worldwide	64
		4,853

Notes: [a] Common search parameters used:
Search term(s): truncation of "cool" (cool*) in conjunction with (AND) any of the following truncations: market*, cultur*, person*, hip*, brand*; OR with any of the following terms: product, design, attitude, stage, life (extant literature suggests that the construct of cool is the most relevant to social marketing in the contexts of culture, personality, design, attitude, stage in life, and marketing. Hence the Boolean search included any of these terms with the term "cool"); Subject areas included: all available subjects; Document type: all available types; fields searched: title, abstract, keywords; date range: all available years; language of text: English.

2.3.1.3 Selecting articles

The literature search was carried out in May 2014, which returned 16,417 records. The records included scientific, technical, medical, social sciences, and business literature. The term ‘cool’ is commonly used in environmental sciences, health sciences, biological sciences, engineering, and physical sciences to refer to heat. This interpretation of the term is not relevant to the study, and hence these disciplines were excluded from the search. Citations of the remaining articles were imported into EndNote and subsequently analysed for literature selection.



[Presented in Mohiuddin et al. (2016)]

Figure 2.2: Flowchart of literature selection process

Records imported into Endnote were screened in multiple stages according to the aim of the systematic review. The screening of articles is outlined in Figure 2.2. An initial screening for duplications of records was carried out. Then the articles were screened for their relevance to the socially constructed concept of cool, first on the basis of their titles and abstracts, and next on the basis of the full texts. An examination of the full texts of the downloaded papers resulted in excluding articles that refer to cool in the context of international or interpersonal relations, and denote the quality of relations. For example, Vernon, Cope, and Worku (1997) use the term cool in the context of international relations in their article titled ‘Russia and Ukraine-relations cool’. The remaining articles were identified as relevant for the research. A further search of grey literature was conducted through the Google advanced search tool, and using the same search parameters as those mentioned above (used for academic literature) to identify relevant non-academic literature. Administering similar screening and selection criteria, three additional articles from the grey literature were included for the review. Consequently, a total of 214 articles that included – discourses and conceptual papers, qualitative studies, and quantitative studies – were selected for the review.

2.3.1.4 Data collection

The selected articles were read, analysed, and interpreted for: (1) identifying terms and languages used to describe cool, (2) developing a list of characteristics of cool expressions, and (3) understanding the potential interrelations and differences of the characteristics and terms relevant to cool. Adopting an open coding approach, data were analysed line by line and word by word, and terms and languages used to describe cool were initially identified (Saldaña, 2015; Strauss and Corbin, 1990). Each of these terms was then checked for convergence among the different document types using document analysis as the literature included different types of articles, that is, discourses and conceptual papers, qualitative studies, and quantitative studies (Bowen, 2009; Kara, 2015; Lindgren, 2013). Specifically, each term was cross-checked across the three different document types using triangulation. Notably, document analysis enables a researcher to draw upon different types of documents and seek convergence among them through triangulation (Bowen, 2009; Fisher, Baum, MacDougall, Newman, and McDermott, 2015; Kara, 2015; Michelle and Philip Holst, 2011). Next, the terms were checked for synonyms, redundancies, and conceptual overlaps utilising Oxford and Merriam Webster dictionaries and thesauri. In addition, the literature was reviewed a second time using axial coding that involved understanding relations between codes to facilitate identifying conceptual overlaps (Saldaña, 2015; Strauss and Corbin, 1990). At this stage, memos containing reflective notes about the data were also recorded (Saldaña, 2015). The process helped in gaining a holistic understanding of the concept. Finally, the list of items was discussed with the thesis supervision team and checked for disagreements in coding. A refined list of terms was finalised after considering it from different lenses or perspectives and discussion among the researcher and the supervision team members.

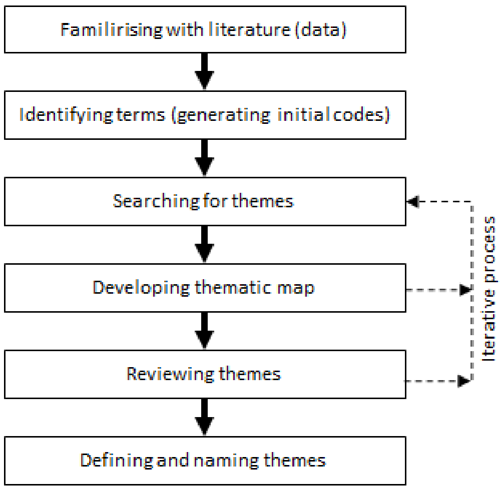
2.3.1.5 Analysis

The interrelations and conceptual overlaps among the listed terms indicated that the terms can be grouped under some themes, and thus key dimensions of cool could be identified. A widely used qualitative method to identify emergent themes in a set of data is thematic analysis (Braun and Clarke, 2006). A thematic analysis can provide a rich yet complex account of data (Boyatzis, 1998; Braun and Clarke, 2006; Roulston, 2001). Thematic analyses can take an inductive or a theoretical approach, both of which are aligned with a pragmatic research paradigm (Braun and Clarke, 2006). An inductive thematic analysis can be conducted in the absence of any theories and the data does not need to be directly related to a specific theory (Braun and Clarke, 2006; Frith and Gleeson, 2004; Patton, 1990). As a result, the themes identified from an inductive thematic analysis are strongly linked to the data (Braun and Clarke, 2006; Strauss and Corbin, 1990). A theoretical thematic analysis, on the other hand, analyses data based on extant theories (Braun and Clarke, 2006). Hence a theoretical thematic analysis is influenced by a researcher's theoretical interest and is thus analyst driven (Boyatzis, 1998; Braun and Clarke, 2006; Hayes, 1997). As this study focused on identifying a set of emergent themes from the data to conceptually define cool, and did not include theoretical assumptions, an inductive thematic analysis was suitable.

According to the suggestions of Braun and Clarke (2006), the thematic analysis was carried out in six steps (see Figure 2.3, p.35): (1) familiarising with data; (2) generating initial terms; (3) searching for themes; (4) developing a thematic map; (5) reviewing themes; and (6) defining and naming themes (Braun and Clarke, 2006). Steps 1 and 2 of the process were carried out during the data collection, coding, memoing, and summarising (Braun and Clarke, 2006; Saldaña, 2015). Steps 3 to 6 of the thematic analysis are discussed below.

Searching for themes and developing thematic maps (steps 3 and 4) were carried out simultaneously, and involved carrying out a series of term grouping exercises to identify the probable themes. Small groups of conceptually overlapping terms were initially created.

Then, based on the conceptual interrelations of the small groups, larger groups at a second level of abstraction were created (see Appendix C). Different combinations for grouping the terms were tried by taking different perspectives/lenses and discussions with the supervision team in an iterative process (Braun and Clarke, 2006; Saldaña, 2015). Subsequently, alternative thematic maps were developed representing these groupings (see Appendix D). The process involved repeated consultation of the literature and reflexive thought, and was carried out over a period of three months (from October 2014 to January 2015).



[developed from Braun and Clarke (2006)]

Figure 2.3: Thematic analysis process for developing conceptual framework

Reviewing themes (step 5) involved comparing the alternative groupings to identify a grouping that conceptually appeared more consistent than others. This entailed an iterative process of discussions with the project supervision team, reflexive thought, and consultation of the literature. The grouping was next judged by two independent experts who were recruited through personal networks but had no relation to the research project. Each expert has a PhD in marketing, was actively engaged in research at an Australian university, and had marketing-related industry experience. The experts reviewed the grouping and indicated their agreements or disagreements to grouping the items. There were a few differences between the two experts, and the inter-coder reliability was checked. The percentage of agreement method for checking inter-coder reliability (calculated by dividing the total number of agreements by the total number of coding decisions) was used as this method is the most widely used for such reliability checks in qualitative studies (Gordon, Jones, Barrie, and Gilchrist, 2015; Hughes and Garrett, 1990; Kang, Kara, Laskey, and Seaton, 1993; Lombard, Snyder-Duch, and Bracken, 2002). Terms that were not supported by both the experts, or were identified as repetitive and having synonymous connotations, were removed from the list. The experts were also asked to suggest names for each group. Naming the themes (step 6) involved reviewing and evaluating the alternative names suggested for each group of terms with the project supervision team. Repeated discussions with the supervision team enabled resolving disagreements and finalising the names of the themes.

2.3.1.6 Summary of findings

A detailed discussion on the findings from Study 1 appears in Chapter 3: A conceptual framework of 'cool'. Consistent with the recommendations for conducting systematic literature reviews using the PRISMA protocol, a brief summary of findings is presented here (Moher et al., 2010). The literature review initially produced a list of 171 terms to describe cool. After conducting document analysis using triangulation 139 of these terms were retained (see Table B.1 of Appendix B). Screening for redundant and synonymous terms resulted in excluding 61 terms, and 21 terms were excluded during thematic analysis. Finally, a list of 57 terms was retained, which had an inter-coder reliability of 94.91%, calculated in percentage of agreement method (Hughes and Garrett, 1990; Lombard et al., 2002). Based on the thematic analysis and the expert judging process, these terms were grouped in seven themes and named: (1) deviating from norm; (2) subversive; (3) evasive; (4) attractive; (5) self-expressive; (6) pro-social; and (7) indicative of maturity. This systematic literature review study also identified that the extant understanding of cool is primarily based on studies that explore the engagements of adolescents with cool, and that there is a paucity of literature that explores cool from the perspectives of adult consumers. These findings from Study 1 informed the aims of the next study.

2.3.2 Study 2: Qualitative interviews

Study 1 identified a set of attributes in relation to cool that collectively relate to cool in different contexts. However, each of these attributes is not equally relevant to cool in every context. According to Churchill (1979) and DeVellis (2016), explicating and measuring a concept in a specific context requires identifying its context-specific attributes. Scholars suggest conducting qualitative interviews with relevant experts and consumer groups to generate such attributes alongside identifying them from literature (Chaffee, 1991; Churchill, 1979; Cronbach and Meehl, 1955; DeVellis, 2016). Churchill (1979) recommends measuring of a concept through multiple attributes generated in this manner to increase the reliability of measurements. Therefore, research to develop an empirically tested model and a scale of brand cool requires conducting qualitative interviews with relevant experts and consumers. Beyond this focus, the qualitative study also addressed the paucity of extant literature on understanding cool from the perspective of adult consumers. As stated previously, the literature review conducted in Study 1 revealed that extant studies focus on the perspectives of adolescents on cool, and there is a lack of understanding in relation to the perspectives of adult consumers.

2.3.2.1 Aims

Study 2 focused on empirically exploring cool in the context of brands through qualitative interviews. It specifically aimed to: (1) generate a set of attributes for explicating brand coolness by qualitative interviews with experts and consumers, and (2) explore perspectives of adult consumers regarding cool to compare it against the perspectives of adolescent consumers. From a contextual point of view, the first aim addresses the specific domain of brands whereas the second aim addresses a broader context: perceptions regarding cool. Following the recommendations of Churchill (1979) and DeVellis (2016) the attribute generation included discussions with both experts and consumers. However, the exploration of cool from the perspectives of adult consumers consisted only of discussions with consumers. The differences and overlaps in the contexts and participants for the two aims of the study resulted in a complex design for data collection and analysis for this study.

2.3.2.2 Data collection

Qualitative interviews with consumers, to address the two aims of the study, were designed to consist of two phases: (1) an attribute generation phase where the consumers focused on listing attributes of brand coolness; and (2) a narrative phase where the consumers provided their narratives on interaction with cool. As qualitative interviews with experts only focused on generating attributes of brand coolness, there was no narrative phase. Two prominent qualitative interview methods – in-depth interviews and focus group discussions – were considered for the study (Aaker, Kumar, Day, Lawley, and Stewart, 2007; Malhotra, 2007; Patton, 1990). In-depth interviews involve one-to-one question and answer sessions and discussions between a participant and an interviewer, where the participant is assumed to have a deep understanding of the subject matter (Aaker et al., 2007; Malhotra, 2007; Patton, 1990). In focus group discussions groups of participants who are assumed to have experiences relevant to a marketing phenomenon are invited to discuss different aspects of the phenomenon, where discussions are moderated by appointed moderators (Aaker et al., 2007; Malhotra, 2007; Patton, 1990).

In a focus group discussion participants are exposed to the inputs of other participants, and thus can be influenced by others (Malhotra, 2007). As cool is determined by the evaluation of others (Belk et al., 2010; Gurrieri, 2009; Warren and Campbell, 2014), this influence of other participants was considered advantageous in eliciting relevant data. Moreover, a focus group discussion can elicit data from multiple participants in a relatively shorter time frame compared to in-depth interviews (Aaker et al., 2007; Malhotra, 2007). However, in-depth interviews may be more appropriate when participants are difficult to assemble together, as is the case of experts (Aaker et al., 2007; Malhotra, 2007). Therefore, data for the study were collected from experts through in-depth interviews, and from consumers through focus group discussions. The details of sampling, data collection, and analyses followed for the two methods are presented in the following sections.

2.3.2.3 Expert interviews

Sampling

Consistent with existing recommendations, experts from both academia and practice were interviewed for generating attributes of brand coolness (Churchill, 1979; DeVellis, 2016). Malhotra (2007) and Patton (1990) recommend using purposive or convenience sampling for in-depth interviews. Considering these recommendations, experts were recruited first through the personal network of the researcher, and then through snowballing. Experts were invited to participate in the study through emails. The invitation stated the aims of, and methods involved in, the study to ensure collection of relevant data (Aaker et al., 2007). The recruitment of experts was stopped after completing 12 interviews, as the data collection reached saturation. Saturation was determined at the point when the data collection no longer provided any relevant or new data to address the study objectives (Charmaz, 2006; Dworkin, 2012). Notably, no compensation was provided to experts for participating in the study.

Table 2.2 summarises the sample composition for expert interviews. The sample consisted of six experts from academia, and six experts from practice. Each of the six academic experts has a PhD in a marketing related discipline and was appointed full-time in a university. Each practitioner was experienced in marketing products and services for at least three years, and five of the six practitioners had postgraduate degrees. The experts collectively covered a range of specialisations such as brand management, advertising, consumer behaviour, and consumer culture.

Table 2.2

Sample composition for expert interviews

Reviewer	*Expertise*	*Highest level of education*	*Designation*	*Specialisation*
1	Academia	PhD	Professor	Advertising
2	Academia	PhD	Associate Professor	Consumer behaviour
3	Academia	PhD	Associate Professor	Consumer behaviour
4	Academia	PhD	Senior Lecturer	Brand management
5	Academia	PhD	Senior Lecturer	Consumer culture
6	Academia	PhD	Lecturer	Consumer culture
7	Practice	MBA	Brand Manager	Brand management
8	Practice	MBA	Assistant Brand Manager	Brand management
9	Practice	MBA	Assistant Brand Manager	Brand management
10	Practice	MA	Creative Director	Advertising
11	Practice	MBA	Account Director	Advertising
12	Practice	BCom	Account Manager	Advertising

Qualitative interview discussion guide

While the direct involvement of a researcher in the data collection process can benefit a study during data analysis, the researcher's interview skills can affect the quality of collected data (Aaker et al., 2007; Malhotra, 2007; Patton, 1990). Considering the previous experience of the researcher in conducting interviews, the researcher himself interviewed the experts. To collect the required data from the interviews, a qualitative interview discussion guide was developed (Aaker et al., 2007; Malhotra, 2007; Patton, 1990). The guide specified how interviews were conducted and the data recorded, forms for the experts to complete, probes to initiate discussions, and the process of concluding discussions (see Appendix F). A discussion on the method of data collection and recording follows.

Data collection and recording

Upon receiving consent from experts to participate in the study, interview times and venues were determined according to the convenience of experts. Eleven interviews were conducted face to face, and one interview was conducted using Skype. The Skype interview included video thus closely mimicked face to face interviews. Attribute generation included a free association task and a direct elicitation task (see Akter, D'Ambra, and Ray, 2013; Freling, Crosno, and Henard, 2011; Hede, Garma, Josiassen, and Thyne, 2014). In the free association task, each expert mentioned attributes of a cool brand of his or her choice. In the direct elicitation task, each expert listed attributes they expected any cool brand to possess. A small survey instrument was provided to experts to list the attributes (Aaker et al., 2007; Malhotra, 2007). Three of the experts were available for member check at a later data, whereby an expert confirmed his or her agreement to a summary of key points (Birt, Scott, Cavers, Campbell, and Walter, 2016). Interviews lasted between 30 and 60 minutes. Interviews were recorded using an audio recording device (Aaker et al., 2007; Malhotra, 2007). The interviewer also took field notes. Consent for recording and conducting the interview was obtained from experts in a 'participant consent form' at the beginning of interviews (see Appendix E). Audio recordings of interviews were transcribed using Microsoft Word within 1 to 2 days of each interview. Written responses from experts were also simultaneously consolidated. An interval of minimum 2-days between two consecutive interviews allowed time for the transcription and consolidation, and the identification of the saturation point in data collection.

2.3.2.4 Consumer group discussions

Consistent with existing recommendations, a series of consumer group discussions to generate attributes of brand coolness were conducted to complement the attributes identified from the literature review and expert interviews (Chaffee, 1991; Churchill, 1979; Cronbach and Meehl, 1955; DeVellis, 2016). In addition, consumer group discussions were designed to also address the second aim of the study: exploring consumer perceptions of cool. The details of sampling, data collection, and analyses for consumer group discussions are presented next.

Sampling

A purposive sampling to include consumers who are knowledgeable about cool trends and brands was used for the group discussions (Malhotra, 2007; Patton, 1990). As outlined in Table 2.3, the three criteria suggested by de Souza (1997) to identify such consumers: 'relationship with the social environment', 'emotional intelligence', and 'leadership in collective situations' were adapted for the study. A consumer's relationship with social environment was assessed by the individual's ability to be included in peer groups, interact in work or study environment, and exposure to different cultures; a consumer's self-reported perceived emotional intelligence was used as a proxy for emotional intelligence; a consumer's leadership in collective situation was assessed by his or her perceived opinion leadership. In addition to the criteria suggested by de Souza (1997), a consumer's age, educational qualification, financial status, and the consumer's engagement with cool brands, trends, and contexts were also considered. A screening questionnaire incorporated these criteria, and was used during recruitment (see Appendix G).

Table 2.3

Participant recruiting criteria [source: adapted from de Souza (1997)]

Criteria	*Indicators used*
Relationship with the social environment*	• Inclusion in peer groups* • Interaction in work/study environment* • Exposure to different cultures
Emotional intelligence*	• Perceived emotional intelligence*
Leadership in collective situations*	• Perceived opinion leadership*
Other	• Engagement with cool brands, trends, contexts • Age • Educational qualification • Financial status

* from: de Souza (1997)

The Human Network (THN), a Sydney based qualitative research support agency, helped in recruiting the consumers for the study. THN was instructed to recruit consumers between the age of 18 and 32 years from greater Sydney area using the screening questionnaire. Participation in the study was voluntary, and each participant was provided a prepaid debit card worth $70 as compensation. Forty-seven consumers participated in the group discussions. Table 2.4 presents the key demographic indicators of participants. The participants consisted of 24 female and 23 male consumers, and 11 of the participants had completed tertiary education. The age of participants ranged from 19 to 28 years with an average age of 23.40 years.

Table 2.4

Sample composition for consumer group discussions

Description	*Number of participants*	*% of participants*
Age of participants		
18 – 22 years	36	77.6%
23 – 27 years	9	19.1%
28 – 32 years	2	4.3%
Gender of participants		
Male	23	48.9%
Female	24	51.1%
Highest level of education completed		
Secondary	36	77.6%
Tertiary	11	23.4%
Total	47	100%

Qualitative interview discussion guide

Groups of eight to twelve participants are customary for group discussions in market research, but smaller groups can be useful in gaining deeper insights regarding a phenomenon (Aaker et al., 2007; Fern, 1982). However, very small groups may suffer from lack of varying ideas and stimulation (Malhotra, 2007). Considering these aspects, four to five participants were included in each group. Aaker et al. (2007) states that three to four groups are sufficient for a market research, as additional groups beyond four groups tend to provide little new information due to data saturation. However, similarities and contrasts in the profile of participants can influence the perspectives introduced in a discussion, and needs consideration in determining the number of groups (Aaker et al., 2007; Malhotra, 2007). The consumers were split in three groups according to gender of the participants to account for probable gender-specific views. The first category included three female groups, the second category included three male groups, and the third set included four mixed-gender groups. Notably, Kirkland and Jackson (2009) and Cullen (2010) indicate the possibility of slightly different perceptions of cool based on gender. The gender-specific groups provided homogeneity in group composition which is considered essential in fostering discussions, whereas mixed-gender groups benefited from diverse perspectives (Aaker et al., 2007; Malhotra, 2007).

As Malhotra (2007) and Patton (1990) recommend direct involvement of a researcher in qualitative interviews to benefit a study during data analysis, the researcher himself moderated each consumer group discussion. A qualitative interview guide facilitated the collection of data (Aaker et al., 2007; Malhotra, 2007; Patton, 1990). The guide specified how group discussions were conducted and the data recorded, forms for the consumers to complete, probes to initiate discussions, and the process of concluding discussions (see Appendix K). A discussion of the method of data collection and recording follows.

Data collection and recording

Consumer group discussions were arranged at a room pre-booked for the purpose within Macquarie University. Group discussions started after participants read and understood the 'participant information sheet', and consented to participate. Each group discussion consisted of: an attribute generation section, and an experience sharing section. In the attribute generation section, a free association task and a direct elicitation task were conducted according to the common practices in concept explication studies (see Akter et al., 2013; Freling et al., 2011; Hede et al., 2014). For the association task, consumers were instructed during recruitment to take photographs using their mobile phone cameras of brands or products they experienced and considered cool. During the group discussions, each consumer was asked to explain what attributes made those brands or products cool. For the direct elicitation task, consumers were asked to list attributes that any brand should possess to be seen as cool. Consistent with existing recommendation, a small survey instrument was provided to each consumer to list attributes (Aaker et al., 2007; Malhotra, 2007).

For the experience sharing section, consumers were first asked to share their experiences regarding brands or products included in the photographs they brought. Consumers were also probed to share experiences, motivations, and expressions regarding other brands they considered cool. Once all consumers in a group shared their experiences and perspectives, consumers were next asked to recall and reflect on their experiences, motivations, and expressions regarding cool from when they were adolescents. Member checks were conducted on five of the consumers who made themselves available for the study again at a later date. Member checks involved summarising key points from the discussion and seeking confirmation from consumers (Birt et al., 2016). At the end of discussions, the researcher concluded by thanking consumers for their time and cooperation, and handing out the compensation. Notably, consumer group discussions for the study lasted between 75 and 90 minutes.

Consent from each consumer was obtained in a 'participant consent form' at the beginning of each group discussion (see Appendix E). An audio recording device was used to record discussions with the permission from consumers (Aaker et al., 2007; Malhotra, 2007). Field notes were also taken during discussions. After conducting each consumer group discussion, the audio recording of the discussion was transcribed using Microsoft Word within 1 to 2 days. Written responses from consumers were also consolidated. An interval of three to four days after each group discussion allowed for transcribing, consolidating, and reviewing the data prior to the next discussion. Consequently, it took 40 days to conduct ten consumer group discussions.

2.3.2.5 Analysis

Expert interviews focused on addressing the first aim of the study: generating a set of attributes for explicating brand coolness, as stated in section 2.3.2.1. While qualitative studies can use a variety of data analysis methods, attribute generation studies for concept explication focus on descriptive analyses of qualitative data (Churchill, 1979; DeVellis, 2016). Accordingly attributes of cool brands generated from interviews were compiled, and the data was not analysed further. The process specifically involved identifying attributes from the free association tasks through open coding, and compiling them with the list of attributes from the direct elicitation task (Saldaña, 2015; Strauss and Corbin, 1990). An 'in vivo' approach was taken during the open coding, whereby identified attributes or codes consisted of words and phrases used by participants (Given, 2008). These attributes were later consolidated with attributes generated from consumer group discussions.

Consumer group discussions focused on collecting data to address both the two aims of the study (section 2.3.2.1). Consequently, data were analysed in two stages. In the first stage, data were analysed to address the first aim of the study: generating a set of attributes for explicating brand coolness. Consistent with existing recommendations, the attributes were identified from the discussions using an open coding, and a descriptive analysis (Churchill, 1979; DeVellis, 2016; Saldaña, 2015; Strauss and Corbin, 1990). Attributes identified from the discussions in this manner were compiled with attributes from the direct elicitation task. The final list of attributes for brand coolness was developed by consolidating these attributes with the attributes generated from expert interviews and the systematic literature review study.

The second stage of analysing data from consumer group discussions addressed the second aim of the study: exploring consumer perspectives in relation to cool brands. Transcribed data from consumer group discussions were analysed in two steps. First, data were categorised in two groups: consumer perceptions as adults, and consumers' retrospection on their perceptions of cool as adolescents. The data were analysed using open and axial coding and deductive thematic analysis to identify emergent themes of cool (Braun and Clarke, 2006; Given, 2008; Saldaña, 2015; Strauss and Corbin, 1990). Finally, the themes for the two groups of data were compared following the constant comparison method (Glaser and Strauss, 1967, p. 444). The final set of themes identified from the analysis was crosschecked by two external academic experts. Both the academics have PhD in marketing, and were actively engaged in research in a university. The inter coder reliability for the crosschecking of the themes was 87.02%, calculated in percentage of agreement method (Hughes and Garrett, 1990; Lombard et al., 2002). In the second step, the resulting themes were interpreted on the basis of Bourdieu's (1984) cultural capital theory as several researchers in the past found the theory useful in explaining cool identities (Belk et al., 2010; Bird and Tapp, 2008; Bookman, 2013; Maher, 2005; Nairn et al., 2008; Nancarrow et al., 2002).

2.3.2.6 Summary of findings

Findings from Study 2 are presented across chapters 4 and 5 of this thesis. Chapter 4 discusses the exploring of consumer perspectives of cool during adolescence and adulthood. Chapter 5 includes study findings that are relevant in generating a set of probable scale items for measuring brand cool. All the experts, and 43 out of 47 consumers (91.5%) cited examples of brands from tangible product categories such as automobile, computers, mobile phones, fashion accessories, beverages, etc. for the free association task. A list of 83 probable items for a brand cool scale (see Table B.3 of Appendix B) was developed by consolidating items generated from the study with the associations identified from the literature review. This list was used in the next study to develop a scale to measure brand coolness.

2.3.3 Study 3: Scale development

The results of Study 1 and Study 2 indicate distinct dimensions of cool, and developed an initial set of 83 terms in relation to brand coolness. The aim of Study 3 was to draw upon these findings and develop a scale to measure brand coolness. Study 3 is a multi-stage study that comprises the following six steps:

1. Item selection and content validity;
2. Initial scale development;
3. Dimensionality assessment and scale purification;
4. Model validation;
5. Assessing construct validity and criterion-related validity of scale; and
6. Assessing temporal stability.

The methodology associated with each of these six steps are describe separately in the following sections.

2.3.3.1 Step 1: Item Selection and Content Validity

The first step involved developing an initial set of items that could then be examined and refined through steps two to five. As noted, Study 2 generated 83 terms that were considered for inclusion in the brand coolness scale. The purpose of Step 1 was to examine the items and determine which items were relevant for inclusion and which items should be excluded. This involved assessing the content validity of these items, which is an important step in item selection. Content validity examines the domain sampling adequacy, which is the extent to which content domain is reflected by a specific set of items (DeVellis, 2016; Rossiter, 2002). Here the content domain refers to the specific level of a concept that is being analysed (Churchill, 1979; DeVellis, 2016). The content validity can be easily evaluated when the domain is well defined (Churchill, 1979; DeVellis, 2016). For this thesis, the domain of brand coolness refers to cool in the context of brand image in a generic fashion for brands across different product categories. The domain excludes consequences of brand cool such as desirability and brand preference. In theory, if the items of a scale are a randomly chosen subset of the universe of appropriate items, the scale has content validity (DeVellis, 2016;

Hair, Black, Babin, Anderson, and Tatham, 1998). The content validity of a scale is commonly assessed by subjectively reviewing the process of defining a concept, defining the domain of the concept to be measured, and generating and selecting scale items (Churchill, 1979; DeVellis, 2016; Messick, 1995; Rossiter, 2002). For this study, the content validity was assessed by expert reviews. The methods employed for the sampling and recruitment of reviewers, the review of items, and the assessment of content validity are discussed next.

Sampling and recruitment of reviewers

Consistent with existing research, experts were recruited via convenience sampling (drawing upon the author's personal networks and snowballing) and targeted three main stakeholder groups: academics, managers, and consumers (Aaker et al., 2007; Churchill, 1979; DeVellis, 2016; Hair et al., 1998; Mowen and Voss, 2008; Worthington and Whittaker, 2006). Table 2.5 presents the sample composition of reviewers who comprised four marketing academics, three consumers, and four managers. The credentials of the recruited reviewers were considered for the content validity assessment according to the guidelines of purposive sampling (Churchill, 1979; DeVellis, 2016; J. Hair, Bush, and Ortinau, 2006; Worthington and Whittaker, 2006). Each marketing academic has a PhD, and was engaged in academic research at an Australian university. Each consumer met the criteria outlined by de Souza (1997) for identifying consumers who engage with cool (see Table 2.2). Each manager had a marketing-related degree, and was experienced in marketing roles in the industry.

Review of items

The relevance of the 83 items to brand coolness was determined through one to one interview with each of the reviewers. Reviewers were provided the list of 83 items and asked to evaluate each item for relevance to the specific context of brand coolness (Churchill, 1979). Accordingly, recommendations from the reviewers were sought for item deletions, and also item additions if required (Churchill, 1979; DeVellis, 2016). Next, each reviewer was asked if any of the items appeared as synonymous or redundant, as the review also aimed to identify and exclude such items that do not provide "different shades of meaning" for a construct (Churchill, 1979, p. 68; DeVellis, 2016; Rossiter, 2002; Worthington and Whittaker, 2006). Notably, synonymous and redundant items can cause problems in assessing the dimensionality of a model (Brown, 2014). Therefore, if two or more items were identified as synonymous by an interviewer, the reviewer was asked to recommend one of the items to be retained (Moore and Benbasat, 1991).

Table 2.5

Sample composition of reviewers

Reviewer	*Stakeholder group*	*Highest level of education*	*Area of expertise*	*Experience*
1	Academic	PhD	Consumer culture, social marketing	7 years
2	Academic	PhD	Consumer culture, advertising	8 years
3	Academic	PhD	Consumer behaviour, brand management	5 years
4	Academic	PhD	Consumer behaviour, advertising	24 years
5	Consumer	BCom	Cool consumption*	N/A
6	Consumer	HSC	Cool consumption*	N/A
7	Consumer	BA	Cool consumption*	N/A
8	Manager	MBA	Brand management	6 years
9	Manager	MBA	Brand management	12 years
10	Manager	BCom	Advertising	8 years
11	Manager	MA	Advertising	16 years

* Consumers recruited according to criteria outlined by de Souza (1997)

Assessing content validity

The researcher adopted a conservative approach in selecting items for the scale, and an item was retained if ten of the 11 reviewers recommended the item (Brown, 2014; Churchill, 1979; DeVellis, 2016). Items that were identified as redundant, or irrelevant for cool in the context of brand, were removed (Churchill, 1979; Lawshe, 1975; Rossiter, 2002). The content validity for the preliminary scale items was assessed through a percentage of agreement method of inter coder reliability. In this method, the total number of coding agreements was divided by the total number of coding decisions (Hughes and Garrett, 1990; Lombard et al., 2002).

Summary of results

Considering the reviewers' recommendations on the list of 83 items, the researcher removed 47 items that were identified as redundant, or irrelevant in the context of brand coolness (Churchill, 1979; Lawshe, 1975; Rossiter, 2002). The reviewers made no recommendations for adding items, or changing the wording of items. Modifying the list according to the recommendations from the expert review resulted in a final list of 36 items to form the preliminary brand coolness survey (See table 2.6). The inter coder reliability was 94.01%

for the selected items, calculated by dividing the number of agreements, that is 859, by the number of coding decisions, that is 913 (Hughes and Garrett, 1990; Lombard et al., 2002).

Table 2.6

Items for brand coolness survey

1. Ahead of the game	2. Sets trends	3. Innovative	4. Fresh
5. Extraordinary	6. Vibrant	7. Aesthetically pleasing	8. Bold
9. Dominant	10. Effortless	11. Interactive	12. Fearless
13. Composed	14. Fun	15. Modest	16. Reserved
17. Low profile	18. Understated	19. Sincere	20. Transient
21. Autonomous	22. Hedonistic	23. Unconventional	24. Rebellious
25. Subversive	26. Evasive	27. Indulgent	28. Risk taker
29. Deviates from norm	30. Proud	31. Self-assured	32. Passionate
33. Direct	34. Authentic	35. Has character	36. Refined

2.3.3.2 Step 2: Preliminary survey development

An initial brand coolness scale was then developed on the basis of the 36 items identified through step 1. A survey format containing the scale was designed to collect data from consumers regarding a set of brands. Consistent with existing recommendations and practice, the survey format would be used to collect data through several surveys for conducting dimensionality analyses, factor analyses, and validity and reliability analyses pertinent to the scale development (Churchill, 1979; DeVellis, 2016; Hair et al., 1998; Rossiter, 2002). Online surveys were chosen reflecting the trend towards online surveys over pen and paper surveys. Notably, online surveys are more convenient for respondent, and also more cost effective for researchers (Buchanan and Hvizdak, 2009; Van Selm and Jankowski, 2006; Wright, 2005). Respondents for online surveys were to be recruited through an online consumer panel provider considering the resources available. Online survey samples from an online consumer panel cannot ensure representation of a population. However, they can provide samples from a usable subset of a population for research (Van Selm and Jankowski, 2006; Wright, 2005). The online survey was developed using the Qualtrics software considering its availability. The process of stimuli selection, the response format, the wording and sequencing of items are described next.

Stimuli selection

The findings from the qualitative interview study (Study 2) helped identify product categories that consumers frequently referred to in identifying cool brands. Based on the findings from Study 2, brands were selected as stimuli for the survey from the following product categories: automobiles, motorcycles, computers, music accessories, and alcoholic beverages (see section 2.3.2.6). Consistent with the recommendations for psychometric tests, brands with varying levels of coolness were included as stimuli to minimise systematic variance, and increase the stability and generalizability of quantitative analysis (Gorsuch, 1997; Worthington and Whittaker, 2006). Five brand pairs where each pair consisted of a cool brand and a relatively less cool brand from the same product category were selected as stimuli. The stimuli comprised of cool brands identified from the list of cool brands published in Coolbrands® (*Coolbrands*, 2018), and relatively less cool (not listed in Coolbrands®) well-known brands within each product category. Table 2.7 lists the ten brands used as stimuli in surveys for Study 3.

Table-2.7

Brands used as stimuli in scale development surveys

Product category	*Cool brand within the category**	*Relatively less cool brands in category*
Computers	Apple	Dell
Motorcycles	Harley Davidson	Yamaha
Alcoholic beverages	Hendricks	Bundaberg
Automobiles	Aston Martin	Toyota
Music accessories	Beats by Dr Dre	Sony

* from Coolbrands® (*Coolbrands*, 2018).

The survey asked each participant to evaluate both a cool brand, and a relatively less cool brand from the same product category. The pairwise evaluations indicated to a participant that the responses would be relative, and reduced the probability of systematic variance (Gorsuch, 1997; Worthington and Whittaker, 2006). To minimise the systematic variance, each participant was presented with a random brand pair using the ‘randomizer’ option in the Qualtrics software where each brand pair had equal probability of being randomly presented (*Qualtrics Randomizer*). However, the validity of responses can be affected if a participant is unfamiliar with a randomly presented brand (Barnard and Ehrenberg, 1990; Morrison, 1979). Therefore, provisions were made for a participant to respond using a different pair if respondents indicated lack of familiarity with a brand pair. The ‘branch logic' option in the Qualtrics software (*Qualtrics Branch Logic*) helped in this arrangement. Notably, a participant was screened out of the survey if he or she indicated lack of familiarity with all of the five brand-pairs.

Response format

Within the range of response formats available for marketing studies, the most commonly used ones are: Likert scales, Semantic differential scales, and Stapel/unipolar scales (Aaker et al., 2007; Malhotra, 2007; Menezes and Elbert, 1979). In a Likert scale, a respondent indicates a degree of agreement or disagreement with items on rating-points, each of which are clearly labelled with a descriptor (e.g. 1=Strongly disagree, 5=Strongly agree) (Aaker et al., 2007; Malhotra, 2007). In a Semantic differential scale, a respondent is required to indicate where an object is located in between two bipolar adjectives (Aaker et al., 2007; Malhotra, 2007). In a Stapel/unipolar scale, a respondent indicates how much an object represents a trait on a scale where only the two extreme rating-points are labelled with descriptors (e.g. 1=Extremely inaccurate, 9=Extremely accurate) (Aaker et al., 2007; Malhotra, 2007). For example, Sundar et al. (2014) use Likert scales, Slater and Narver (2000) use Semantic differential scales, and Goldberg (1992) uses Stapel/unipolar scales in their respective studies.

Larger number of response categories (e.g. 9-point Stapel/unipolar scales, 7-point semantic differential scales) are expected to facilitate more accurate statistical analysis compared to smaller number of response categories (e.g. 5-point Likert scales), but Menezes and Elbert (1979) conclude from their study to compare the above three response formats that none shows a clear superiority over another format in terms of statistical procedure and precision (Aaker et al., 2007; Malhotra, 2007). Notably, including an odd number of response categories reduces the amount of likely random error in responses by allowing expression of neutral views (DeVellis, 2016; O'Muircheartaigh, Krosnick, and Helic, 2001). Although labelling all response categories in Likert scales and Stapel/unipolar scales raises the issue of the wording of descriptors and thereby influence the distribution of responses, such labelling is likely to reduce systematic variance by reducing ambiguity for participants (Aaker et al., 2007; Friedman and Leefer, 1981; Gorsuch, 1997; Worthington and Whittaker, 2006). Menezes and Elbert (1979) suggest that majority of participants prefer responding on Likert scales, which is the most widely used response format for scale development research

(Aaker et al., 2007; Malhotra, 2007; Worthington and Whittaker, 2006). Considering the issues mentioned above, the 5-point Liker scale was chosen as the response format for the survey.

Writing and sequencing of items

Several types of statements with brand coolness attributes were considered for the survey (Aaker, 1997; Sundar et al., 2014). As using complex and/or explanatory sentences may induce researcher perception bias and researcher-induced instrument bias in a survey (Churchill, 1979; DeVellis, 2016; Worthington and Whittaker, 2006), short and simple statements were used. Another consideration in the development of surveys is the probable primacy and/or recency effects in responses that can be caused by sequencing of statements (Krosnick and Alwin, 1987; Schwarz, Hippler, and Noelle-Neumann, 1992). While a primacy effect can occur when respondents put more emphasis on statements at the beginning of a section, a recency effect can occur when respondents put more emphasis on statements at the end of a section (Deese and Kaufman, 1957; Murdock Jr, 1962). To reduce the probable primacy and/or recency effects, the sequence of statements were randomised using the 'question randomizer' option in the Qualtrics software (*Qualtrics Question Randomizer*).

Table-2.8

Item statements for brand coolness scale

1. [BRAND A] is ahead of the game.	2. [BRAND A] is transient.
3. [BRAND A] sets trends.	4. [BRAND A] is composed.
5. [BRAND A] is innovative.	6. [BRAND A] is hedonistic.
7. [BRAND A] is fresh.	8. [BRAND A] is rebellious.
9. [BRAND A] is aesthetically pleasing.	10. [BRAND A] is unconventional.
11. [BRAND A] is bold.	12. [BRAND A] is subversive.
13. [BRAND A] is extraordinary.	14. [BRAND A] is rebellious.
15. [BRAND A] is vibrant.	16. [BRAND A] is autonomous.
17. [BRAND A] is effortless.	18. [BRAND A] is a risk taker.
19. [BRAND A] has character.	20. [BRAND A] is evasive.
21. [BRAND A] is interactive.	22. [BRAND A] is refined.
23. [BRAND A] is dominant.	24. [BRAND A] is indulgent.
25. [BRAND A] is fearless.	26. [BRAND A] deviates from the norm.
27. [BRAND A] is fun.	28. [BRAND A] is self-assured.
29. [BRAND A] is modest.	30. [BRAND A] is proud.
31. [BRAND A] is reserved.	32. [BRAND A] is passionate.
33. [BRAND A] is understated.	34. [BRAND A] is direct.
35. [BRAND A] is low profile.	36. [BRAND A] is authentic.

Survey sections

Dividing a survey into sections can increase the probability of valid responses by providing respite to a respondent and thereby reducing response-related fatigue (Aaker et al., 2007; Deese and Kaufman, 1957; Malhotra, 2007; Murdock Jr, 1962). It can also reduce probable primacy and/or recency effects. This understanding led to the dividing of the survey into three sections: a screening questions section, the scale-items section, and a demographic details section. The screening questions section outlined the objective of the survey, sought respondent consent, presented the brand pair to be rated. The second section presented scale items and the response scale. The demographic detail section sought respondents' demographic information including age, gender, education, marital status, etc.

Pretesting

The survey was pretested on 20 participants to identify if it contained ambiguous language, and missed important information for participants (Aaker et al., 2007). Notably, pretesting a survey and modifying it based on the pre-test can increase the validity of collected data, and the probability that the collected data meets a researcher's expectations (Aaker et al., 2007). An online market research agency: Survey Sampling International (SSI) provided support for the pre-testing by arranging feedback from the pre-test participants. The pre-test identified an error in embedding the exit link for participants who complete the survey. The error was corrected before conducting survey studies.

2.3.3.3 Step 3: Dimensionality assessment and scale purification

The survey developed in the previous step was used to next collect data on the preliminary brand coolness scale and subsequently conduct an exploratory factor analysis (Churchill, 1979; DeVellis, 2016; Hair et al., 1998). Conducting an exploratory factor analysis (EFA) is important for exploring the structure of a dataset for concept explication, and also for purifying items in the scale (e.g. removal of redundant and less relevant items). The target population for the survey consisted of adult consumers from all over Australia. Consumers aged 18 years or above from all over Australia were targeted for the survey. Considering the available resources for the study, an online consumer panel matching the target population was used for the survey (Van Selm and Jankowski, 2006). The online consumer panel was provided by a global market research agency: Survey Sampling International (SSI), which has more than 17 million participants across more than 90 countries in its consumer panels and claims that its panel of Australian consumers includes more than 250,000 consumers from all over Australia at any given point in time (*Consumer Online Panel*). The details of data collection and analysis are discussed in the following sections.

Sampling

Determining sample size is a key consideration for researchers conducting scale development studies (DeVellis, 2016; Hair et al., 1998). DeVellis (2016) states that achieving a relatively stable factor pattern requires a large sample size, i.e. more than 300 participants. A review of scale development literature in the marketing discipline indicates that 200 to 600 participants are common in recent studies (e.g., Coker, Ashill, and Hope, 2011; Freling et al., 2011; Hede et al., 2014). Tinsley and Tinsley (1987) recommends ensuring 5 to 10 observations per scale item for scale development studies. Based on the above understanding, a sample size of 500 participants was targeted, which is considered "very good" for a study involving 36 items, and allows more than 13 observations per item (DeVellis, 2016, p. 203; Tinsley and Tinsley, 1987). Responses were collected from 595 participants. After list-wise removing missing data, responses from 518 participants were used for EFA. Table 2.9 presents the composition of the sample. The age of participants ranged from 18 to 49 years, with an average of 29.6 years. The male-female ratio of respondents was equitable, with 52.1% male respondents. Of the respondents 52.5% held a bachelor's degree or higher educational qualification. The respondents included consumers from all over Australia: New South Wales (NSW) 31.1%, Victoria (VIC) 24.9%, Queensland (QLD) 19.9%, Western Australia (WA) 11.2%, South Australia (SA) 7.5%, Australian Capital Territory (ACT) 3.1%, Tasmania (TAS) 1.5%, and Northern Territory (NT) 0.8%.

Data collection and screening

It took three weeks to collect data with the targeted sample size. Recorded and stored responses were exported from the Qualtrics platform to the researcher's computer in a format compatible for SPSS software (*Qualtrics Data Export*). No coding and data-entry were not required, as the data was recorded and stored according to predefined codes (De Vaus, 2013). Notably, SPSS software (version 24) was used for analysing data considering its availability. The dataset was checked for incomplete and patterned responses before conducting any analysis as these can induce validity concerns, missing values were list-wise excluded

(Brakus, Schmitt, and Zarantonello, 2009; Hair et al., 1998; Thomson, MacInnis, and Park, 2005).

Table 2.9

Sample composition of respondents for EFA

Description		*No. of respondents*	*% of respondents*
Age	18 – 25 years	144	27.8%
	26 – 30 years	138	26.6%
	31 – 35 years	116	22.4%
	36 – 40 years	118	22.8%
	40+ years	2	0.4%
Gender	Male	270	52.1%
	Female	248	47.9%
Education	Less than HSC	26	5.0%
	HSC	79	15.3%
	Diploma/certificate	414	27.2%
	Bachelors equivalent	216	41.7%
	Masters	46	8.9%
	Doctorate	10	1.9%
State/ Territory	NSW	161	31.1%
	VIC	129	24.9%
	QLD	103	19.9%
	WA	58	11.2%
	SA	39	7.5%
	ACT	16	3.1%
	TAS	8	1.5%
	NT	4	0.8%
Total		518	100.0%

Exploratory factor analysis

The structure of a dataset for concept explication can be determined by conducting a principal component analysis (PCA) or an exploratory factor analysis (EFA). While both PCA and EFA provide understanding of the structure in a dataset and yield composite variables/dimensions to capture a concept, PCA is appropriate for formative scales whereas EFA is appropriate for reflective scales (Aaker et al., 2007; DeVellis, 2016; Malhotra, 2007). Formative scales are formed by purposively combining a set of constructs to measure a useful composite concept, whereas reflective scale represent a way of measuring an underlying latent concept that is reflected through a set of attributes (DeVellis, 2016). EFA yields dimensions based on shared variances in item-responses, and assumes that unshared variances in item-responses are essentially error (DeVellis, 2016). EFA thus gives unbiased loadings by recognising the possibility of errors in item-responses (Gorsuch, 1997). On the other hand, PCA yields dimensions from overall variances in item-responses, and does not accommodate for such errors. Therefore, EFA was conducted using SPSS version 24 in the development of a scale to measure brand coolness. Before conducting an EFA on the data, it was assessed for factorability (i.e. whether a dataset is suitable for performing a factor analysis) via Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity (Field, 2000). Field (2000) suggests that a dataset is factorable if KMO value is above .50 and Bartlett's test of sphericity is significant. KMO value for the dataset was .97, and the Bartlett's test of sphericity was significant ($p<.05$) with a Chi-square value of 11954.93.

The next consideration related to deciding on the number of factor to retain (DeVellis, 2016; Zwick and Velicer, 1986). A researcher can use several criteria for this decision with the eigenvalue>1 rule of thumb widely used, as well as visual inspection of a scree plot. Reliance on eigenvalue>1 can be problematic and lead to the overestimation of the number of factors (Courtney and Gordon, 2013; Ruscio and Roche, 2012; Zwick and Velicer, 1986). Furthermore, scree plots can sometime be difficult to interpret and not indicate a clear solution (Courtney and Gordon, 2013; Ruscio and Roche, 2012; Zwick and Velicer, 1986). Other approaches such as the minimum average partial (MAP) test and the parallel analysis provide ways of quantifying the number of factors. The MAP approach focuses on systematic and unsystematic variance remaining in a correlation matrix after increasing number of components are extracted (O'connor, 2000; Zwick and Velicer, 1986). The parallel analysis focuses on identifying the number of components that represent more variance than a set of components derived from random data (O'connor, 2000; Zwick and Velicer, 1986). In the present study both the MAP test and the parallel analysis were used to identify the number of factors in the initial brand coolness scale. Both the MAP test and the parallel analysis indicated that four factors were suitable for the dataset. Notably, the MAP test and parallel analysis were conducted using the guidelines provided by O'connor (2000). The SPSS syntax used to conduct the MAP test and the parallel analysis, and the outputs from these are included in Appendix N and Appendix P.

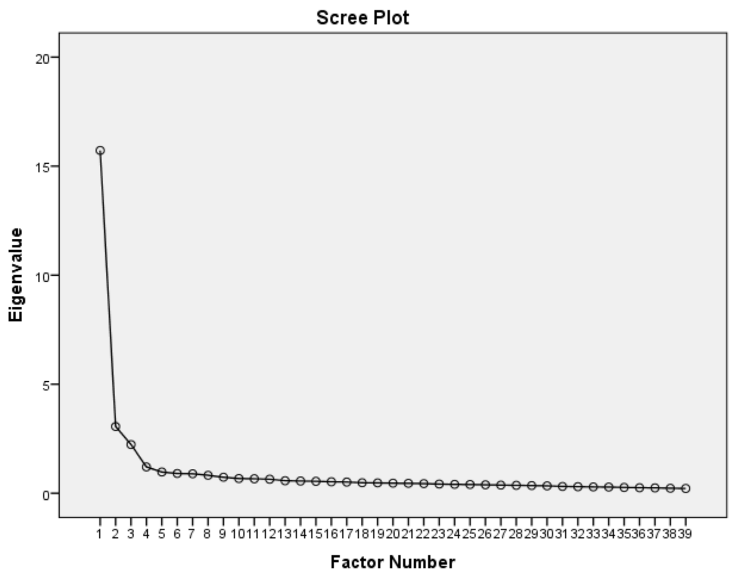


Figure-2.4: Scree plot

Based on the indication from the above analysis on the number of dimensions, the EFA was conducted using principal axis factoring (PAF) and direct oblimin rotation. PAF does not depend upon normally distributed data, and hence does not have strict requirements on data distribution (Costello and Osborne, 2005; DeVellis, 2016). Hence, PAF was selected over other factor extraction methods such as the Maximum Likelihood (ML) method that have specific data distribution assumptions. Direct oblimin rotation is an oblique rotation method that allows factors to be related. This is in contrast to orthogonal rotation methods which assume that the identified factors are independent from one another (Costello and Osborne, 2005; Field, 2000). From a theoretical perspective, brand coolness dimensions are expected to be related to each other; thus in the present context, oblique rotation was considered most appropriate. There are many different oblique rotation methods which often produce similar results. However, direct oblimin tends to be the most widely used oblique rotation method in studies (Field, 2000).

Item purification

The output of the EFA facilitated the purification of scale items. Item purification involves identifying and retaining items that are important indicators of specific constructs; this is an important step in development of reflective scales with good psychometric properties (Brown, 2014; Wieland, Durach, Kembro, and Treiblmaier, 2017). Item purification further serves the purpose of developing parsimonious scales that are convenient to administer

(Wieland et al., 2017). The items that clearly load on to specific factors are identified as important indicators of the respective dimensions (DeVellis, 2016). Item purification process for this study involved consideration of statistical information (derived from the EFA) as well as consultation with experts as a way of assessing content validity. The statistical criteria are first discussed below, followed by the approach used to consult with experts.

The statistical criteria that are commonly used when purifying items are: (1) highest factor loading for an item, (2) high factor loading for an item on a second factor, and (3) difference between two highest loadings for an item that loads on to two or more factors (Brown, 2014; Costello and Osborne, 2005; DeVellis, 2016; Field, 2000; Hair et al., 1998). To retain an item based on highest factor loading, the loadings of an item across factors are compared and the highest loading is identified (Costello and Osborne, 2005; Field, 2000; Matsunaga, 2010). A low factor loading of an item indicates a low overlapping variance with other items in a factor, and hence may not strongly represent of a construct (Costello and Osborne, 2005; Field, 2000). While a low factor loading indicates that an item is able to explain very little of a factor, non-simulated/real data have shown a tendency to produce relatively lower loadings (Brown, 2014; Hair et al., 1998). However, clear cut-offs for determining high and low factor loadings do not exist, and suggested rules-of-thumb vary from .40 (Field, 2000) to .60 (Bagozzi and Yi, 1988). For the purposes of the present study, a cut-off of .40 was selected. This is consistent with the recommendations of Hair et al. (1998), and has been used for many psychometric studies. Based on the above understanding, an item was eliminated if it had a factor loading above .40 on a second factor. The researcher also eliminated an item if the difference between the item's two highest factor loadings was less than .20 (Aquino and Reed II, 2002; Field, 2000). Items that had high loadings on more than one factor (i.e., evidence of cross-loading) were closely examined.

It is important to note that relying on statistical criteria only to inform item removal (e.g., due to low factor loadings or cross-loading) can lead to the removal of items that provide important information. Matsunaga (2010, p. 101) states: "More often than not, however, researchers find themselves in a situation to make some delicate, and in part subjective, decision. For example, an item may cross-load (i.e., having high factor loadings onto multiple components/factors), or its primary loading is not as high to call it 'clearly loaded'." To ensure that relevant items are not eliminated, five academic experts were consulted next to help inform the removal of items (Brown, 2014; Wieland et al., 2017). Each of these academics has a PhD in a marketing-related discipline, had an understanding of the psychometric theory, and was actively engaged in research at a university (see Table 2.10). The experts were provided with the factor structure, loadings of items, and the items considered for elimination (based on statistical criteria). Consistent the recommendation of Wieland et al. (2017), the experts were asked to identify items that appeared to be ambiguous (Puri, 1996), or redundant (Rossiter, 2002), or representing different constructs (Lawshe, 1975). Each expert was also asked if he/she believed an item should be retained. Based on the expert consultation, an item was reviewed if three or more of the five experts (60%) recommended to retain the item. This did not result in retaining any of the items that were considered for elimination based on the statistical criteria. Therefore, a total of 18 items were eliminated. The final scale comprised of the remaining 18 items (see Chapter 5). The items and the factor structure from the EFA were used for confirmatory factor analysis (CFA) in the next stage.

Table 2.10

Sample composition of expert judges

Expert	Education	Designation	Experience
1	PhD	Associate Professor	8 years
2	PhD	Associate Professor	7 years
3	PhD	Professor	24 years
4	PhD	Senior Lecturer	5 years
5	PhD	Lecturer	3 years

Internal consistency

The internal consistency of the identified factors was then examined. DeVellis (2016) states that a reliable scale must yield scores that represent some true state of the variable being assessed. A method of assessing the reliability of a scale is through examining the internal consistency of its items (DeVellis, 2016; Hair et al., 1998). Churchill (1979) recommends assessing internal consistency after conducting exploratory factor analysis. The internal consistency indicates the homogeneity of the items, which demonstrates the items share a common cause, and are measuring the same latent variable (DeVellis, 2016; Hair et al., 1998). Internal consistency is typically measured by computing Cronbach's alpha or 'α' (Cronbach, 1951; DeVellis, 2016; Hair et al., 1998). The researcher calculated the Cronbach's alpha for each of the four dimensions of brand coolness using the reliability assessment tool of SPSS software version 24.

2.3.3.4 Step 4: Model validation

To verify the model identified in the previous step, a confirmatory factor analysis (CFA) was next conducted (Brown, 2014; DeVellis, 2016; Harrington, 2009; Matsunaga, 2010). A CFA is an important analysis as it allows a researcher to specify and evaluate factor models that are founded on strong conceptual understanding and empirical evidence (Brown, 2014; Harrington, 2009; Hurley et al., 1997). The factor model of brand coolness in the present study is based on conceptual understanding from the systematic review study (study 1) and the qualitative interview study (study 2), and also on the empirical findings of EFA carried out in the previous stage. Subsequently the researcher proceeded to conduct a CFA at this stage.

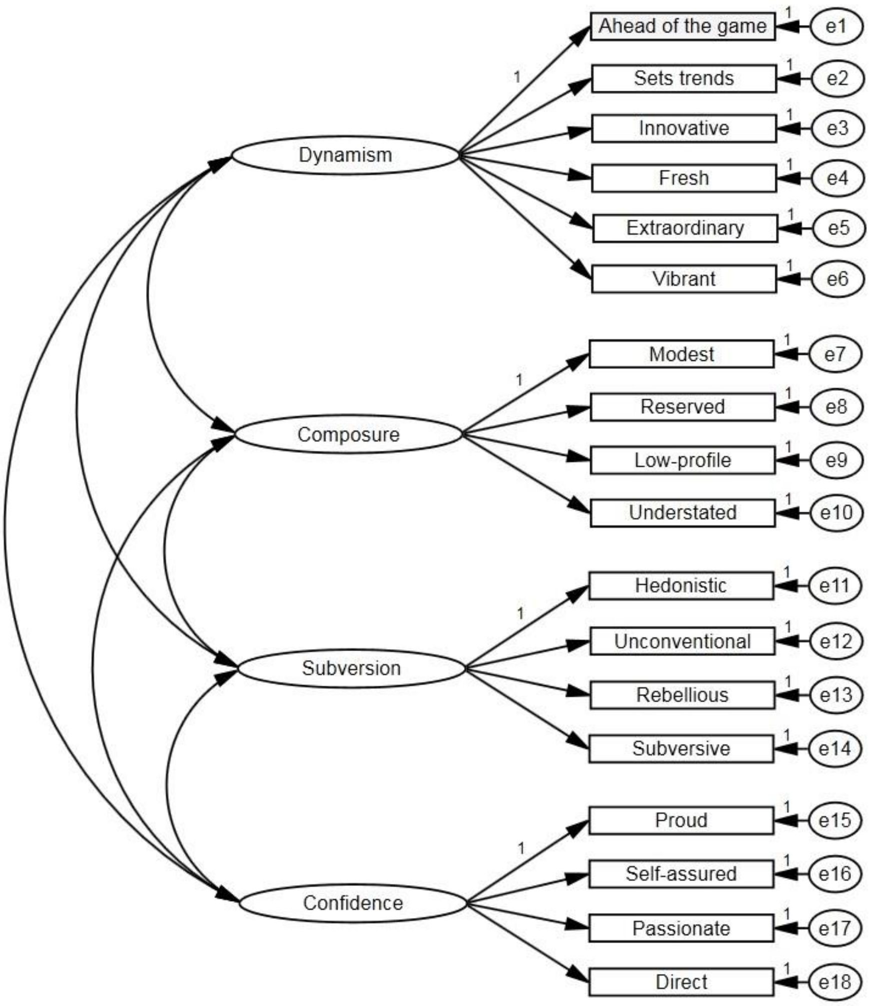


Figure 2.5: Model for conducting CFA

The CFA was conducted using AMOS version 24 on the factor structure identified through the EFA (see Figure 2.5). The model included 18 items grouped under four factors. This model sufficed the recommendation by Brown (2014) to include minimum three items per factor. For each factor a "marker" variable (i.e. a scale item that is strongly related to a factor) was specified based on factor loadings from the EFA (Brown, 2014, pp. 90-91). The item with the highest loading on a factor was specified as the marker variable for the factor. Then the CFA was conducted on a separate data collected through a second survey to assess the model fit. The sampling, method of data collection, and analysis are discussed next.

Sampling

Data for this step were collected through a second online survey. The required sample size for the CFA survey determined according to the recommendations of Schreiber, Nora, Stage, Barlow, and King (2006). They suggest including 10 respondents for each estimated parameter (Brown, 2014). A total of 50 estimated parameters were included in the model, i.e. 6 covariances, 22 regression weights, and 22 variances (Schreiber et al., 2006). Therefore, complete and valid responses from 500 participants was targeted. The same market research agency that provided the sample for the EFA survey was appointed to provide a consumer panel for the CFA. Responses were collected from 662 participants. After screening for incomplete and patterned responses, data from 495 participants were used in conducting the CFA (see Table 2.11). The age of respondents ranged from 18 to 40 years, with an average of 29.0 years. The male-female ratio of respondents was equitable, with 47.1% male respondents. Of the respondents 42.0% held a bachelor's degree or higher educational qualification. The respondents included consumers from all over Australia: NSW (32.3%), VIC (24.4%), QLD (19.6%), WA (10.1%), SA (7.7%), ACT (2.6%), TAS (1.8%), and NT (1.2%).

Data collection and screening

Data was collected through a modified survey containing only the purified scale items. Responses from the online consumer panel was collected over a period of 17 days. The dataset was exported from the Qualtrics platform to the researcher's computer in a format compatible for SPSS software (*Qualtrics Data Export*). Then the dataset was checked for incomplete and patterned responses before conducting any analysis as these can induce validity concerns in a quantitative study, and missing values were list wise excluded (Brakus et al., 2009; Hair et al., 1998; Thomson et al., 2005).

Table 2.11

Sample composition of respondents for CFA

Description		*No. of respondents*	*% of respondents*
Age	18 – 25 years	146	29.5%
	26 – 30 years	162	32.7%
	31 – 35 years	93	18.8%
	36 – 40 years	94	19.0%
Gender	Male	233	47.1%
	Female	262	52.9%
Education	Less than HSC	29	5.9%
	HSC	96	19.4%
	Diploma/certificate	162	32.7%
	Bachelors equivalent	167	33.7%
	Masters	40	8.1%
	Doctorate	1	0.2%
State/ Territory	NSW	160	32.3%
	VIC	122	24.6%
	QLD	97	19.6%
	WA	50	10.1%
	SA	38	7.7%
	ACT	13	2.6%
	TAS	9	1.8%
	NT	6	1.2%
Total		495	100.0%

Confirmatory factor analysis

Confirmatory factor analysis (CFA) was conducted using AMOS version 24. The model was estimated using the maximum likelihood (ML) method, which is the most widely used method for CFA (Brown, 2014; Jackson, Gillaspy Jr, and Purc-Stephenson, 2009). The ML method is superior to the weighted least squares (WLS) method, and the unweighted least squares (ULS) method in estimating models for datasets of different sample sizes (Brown, 2014; Jackson et al., 2009). ML method is not suitable if the data is categorical or if dataset contains missing values, which were not true for the dataset (Brown, 2014; Harrington, 2009). Raw data can be used as input data for conducting CFA using the ML method, and raw data in SPSS (i.e. '.sav' file) format was used in the analysis (Brown, 2014; Harrington, 2009).

Model fit

Consistent with recent practices, goodness of fit index (GFI), adjusted goodness of fit index (AGFI), chi-square divided by degrees of freedom (χ^2/df), root mean square residual (RMR), standardised root mean square residual (SRMR), root mean square error of approximation (RMSEA), comparative fit index (CFI), and Tucker-Lewis index (TLI) were used in assessing the model fit (Brown, 2014; Jackson et al., 2009). These included indices from all three types of indices: (1) absolute fit indices (e.g. χ^2/df), (2) residual-based fit measures or fit adjusting for model parsimony (e.g., RMSEA, RMR), and (3) indices for comparative or incremental fit (e.g. TLI, CFI), that are recommended for assessing model fit (Brown, 2014; Harrington, 2009; Hurley et al., 1997; Jackson et al., 2009). Table 2.12 presents the cut-off values used for each of the model fit indices. A model is considered to demonstrate a good fit if: the GFI and AGFI are above .90 (Baumgartner and Homburg, 1996; Browne and Cudeck, 1992), χ^2/df is less than 3.0 (Schreiber et al., 2006), RMR and SRMR are below .08 (Browne and Cudeck, 1992; Hu and Bentler, 1999), RMSEA is less than .06 (Browne and Cudeck, 1992; Hu and Bentler, 1999), and CFI and TLI are above .95 (Baumgartner and Homburg, 1996; Browne and Cudeck, 1992; Hu and Bentler, 1999). The brand coolness model showed good model fit according to all of the above indices, and hence was next assessed for validity and reliability.

Table 2.12

Cut-off values used for model fit indices

Index	*Range*	*Reference*
GFI	$\geq .90$	Baumgartner and Homburg (1996); Browne and Cudeck (1992)
AGFI	$\geq .90$	Baumgartner and Homburg (1996); Browne and Cudeck (1992)
χ^2/df	≤ 3	Schreiber et al. (2006)
RMR	$\leq .08$	Browne and Cudeck (1992); Hu and Bentler (1999)
SRMR	$\leq .08$	Hu and Bentler (1999)
RMSEA	$\leq .06$	Brown (2014); Browne and Cudeck (1992); Hu and Bentler (1999)
CFI	$\geq .95$	Baumgartner and Homburg (1996); Browne and Cudeck (1992); Hu and Bentler (1999)
TLI	$\geq .95$	Baumgartner and Homburg (1996); Browne and Cudeck (1992); Hu and Bentler (1999)

2.3.3.5 Step 5: Assessing construct validity and criterion-related validity of scale

The criterion-related validity and the construct validity of the scale was assessed by collecting data through a separate survey. Validity of a scale refers to whether a scale is adequate for measuring an underlying cause of item covariance, and can be assessed through three key types of measures: content validity, construct validity, and criterion-related validity (Churchill, 1979; DeVellis, 2016). The content validity of the brand coolness scale was measure in the first step of this study (section 2.3.3.1). The focus at this step of the study was to assess the construct validity and the criterion-related validity. Construct validity, through a correlation coefficient, identifies the strength of the relationship between a scale measure and one or more relevant other variable (DeVellis, 2016). A construct validity can be convergent validity if the relationship is theoretically expected to show a strong correlation, or discriminant validity if the relationship is theoretically expected to show no correlation (DeVellis, 2016). Criterion-related validity is used to assess a scale's ability to predict another variable of practical interest for decision-making purposes (Aaker et al., 2007; DeVellis, 2016). A criterion-related validity can be predictive if the two variables are measured in the same study, or predictive validity if the criterion variable is measured at a later date (DeVellis, 2016).

Two convergent validity measures, a discriminant validity measure, and a concurrent validity measure was used to assess the validity of the brand coolness scale. Theoretically, brand coolness and product coolness converge on the concept of cool, and thus a product coolness was used as a convergent validity measure. The product coolness scale by Sundar et al. (2014) was used in the study. The discriminant validity of the scale was assessed using the brand personality scale, as the scale is commonly used to assess consumer perceptions in relation to brands (Aaker, 1997; Freling et al., 2011; Geuens et al., 2009). Comparing the brand cool scale with a brand personality scale enabled understanding whether the scales measure different concepts. The brand personality scale by Aaker (1997) was used in the study. However, the excitement dimension of this brand personality was expected to relate to brand coolness (Aaker, 1997; Belk et al., 2010; Nancarrow et al., 2002; O'Donnell and Wardlow, 2000). For assessing the concurrent validity of brand coolness, its relationship with brand equity was examined. Measuring brand equity in the same study to measure brand coolness allowed this assessment. Such a relationship can empirically establish the theoretical understanding that embedding coolness in brands can increase the perceived value of a brand (Gurrieri, 2009; Southgate, 2003b). The Consumer-Based Brand Equity (CBBE) scale by Yoo and Donthu (2001) was used in this study.

Sampling

A third survey was conducted to collect data for the validity assessments. The sampling frame included consumers from all over Australia aged 18 years and above. The target sample size was 500 responses, consistent with the EFA and CFA surveys. The online survey agency SSI was appointed to provide online consumer panel. Responses were collected from 660 participants. After screening for incomplete and patterned responses, data from 615 participants were used in conducting the CFA (see Table 2.13). The age of respondents ranged from 18 to 42 years, with an average of 29.7 years. The male-female ratio of respondents was equitable, with 48.7% male respondents. Of the respondents 42.6% held a bachelor's degree or higher educational qualification. The respondents included consumers from all over Australia: NSW (30.7%), VIC (24.6%), QLD (20.2%), WA (10.6%), SA (7.4%), ACT (3.2%), TAS (2.2%), and NT (1.6%).

Data collection and screening

An online survey incorporating the brand coolness scale, a CBBE scale (Yoo and Donthu, 2001), a product coolness scale (Sundar et al., 2014), and the brand personality scale (Aaker, 1997) was developed for data collection (see Appendix M). Each participant was randomly assigned one of the ten selected brands used in this study, and the participant evaluated a brand on all four scales. Data were collected through the survey over a period of 10 days. The dataset was exported from the Qualtrics platform to the researcher's computer in a format compatible for SPSS software for screening and analyses (*Qualtrics Data Export*). The dataset was checked for incomplete and patterned responses before conducting any analysis as these can induce validity concerns in a quantitative study (Brakus et al., 2009; Hair et al., 1998; Thomson et al., 2005). The screening resulted in excluding 161 incomplete and/or patterned responses, yielding a database containing 499 complete responses.

Table 2.13

Sample composition of respondents for scale validity

Description		*No. of respondents*	*% of respondents*
Age	18 – 25 years	173	28.1%
	26 – 30 years	143	23.3%
	31 – 35 years	161	26.2%
	36 – 40 years	134	21.8%
	40+ years	4	0.7%
Gender	Male	302	49.1%
	Female	313	50.9%
Education	Less than HSC	39	6.3%
	HSC	116	18.9%
	Diploma/certificate	198	32.2%
	Bachelors equivalent	193	31.4%
	Masters	60	9.8%
	Doctorate	9	1.5%
State/ Territory	NSW	189	30.7%
	VIC	154	25.0%
	QLD	124	20.2%
	WA	62	10.1%
	SA	45	7.3%
	ACT	18	2.9%
	TAS	13	2.1%
	NT	10	1.6%
Total		615	100.0%

Analyses

Composite scores for dimensions and overall concepts were calculated for each scale by summing up the ratings of the relevant items. Then the relationship between each of these scores were assessed by examining the correlation. The correlation coefficients were used for assessing the strengths for the relationships, theses correlation coefficients served as the validity assessment measures (Aaker et al., 2007; DeVellis, 2016; Ghiselli, Campbell, and Zedeck, 1981). To assess the strength of the relationships, the researcher checked whether the correlation coefficient was .60 or higher (Aaker et al., 2007; Jillian, Geoffrey, and Tim, 2012; Lucia, Salvador Del, and Philip, 2017; Malhotra, 2007; Tu, Khare, and Zhang, 2012; Vandecasteele and Geuens, 2010).

2.3.3.6 Step 6: Assessing temporal stability

DeVellis (2016) states that a reliable instrument performs in consistent and predictable ways. This implies that the scores produced by a reliable scale should not change unless there has been an actual change in the variable that is measured (DeVellis, 2016). Therefore, the reliability of a scale can be assessed by having the same set of people complete the same version of a scale on more than one occasion. How constant the scores produced by a scale remain across different occasions can be assessed by temporal stability, which is typically measured through test-retest reliability (Churchill, 1979; DeVellis, 2016; Hair et al., 1998; Rossiter, 2011). Test-retest reliability requires the same set of respondents to rate scale items over two different occasions with a time interval. The two scale scores across the time interval are then taken to compute their correlation, which serves as the measure for test-retest reliability (DeVellis, 2016; Freling et al., 2011; Lynch Jr, Netemeyer, Spiller, and Zammit, 2010; Zemack-Rugar, Corus, and Brinberg, 2012).

Sampling

Data were collected through a fourth online survey for this step. The sample size for the test-retest reliability assessment was determined by considering the available resources for the project, as the marketing literature does not provide clear guidelines on the sample size for test-retest reliability assessments. The literature contains studies that used sample sizes of 157, 111, and even 48 or 45 for this type of assessment (Freling et al., 2011; Tu et al., 2012; Vandecasteele and Geuens, 2010; Zemack-Rugar et al., 2012). Considering the resources available for the project, a sample size of 200 was targeted. The online survey agency SSI provided the consumer panel for the study. SSI also provided an estimated attrition rate per week to calculate how many of the respondents from the first survey can be expected to respond in the second survey. After calculating the attrition rate, 300 responses were collected in the first survey. A total of 223 respondents completed the second survey. The final sample consisted of these 223 respondents (see Table 2.14). The age of respondents ranged from 18 to 50 years, with an average of 30.8 years. The male-female ratio of respondents was equitable, with 49% male respondents. Of the respondents 54.3% held a bachelor’s degree or higher educational qualification. The respondents included consumers from all over Australia: NSW (31.8%), VIC (26.9%), QLD (20.6%), WA (10.3%), SA (8.1%), ACT (0.4%), TAS (1.3%), and NT (0.4%).

Table 2.14

Sample composition of respondents for test-retest reliability

Description		*No. of respondents*	*% of respondents*
Age	18 – 25 years	47	21.1%
	26 – 30 years	65	29.2%
	31 – 35 years	51	22.9%
	36 – 40 years	54	24.2%
	40+ years	6	2.7%
Gender	Male	109	48.9%
	Female	114	51.1%
Education	Less than HSC	15	6.7%
	HSC	33	14.8%
	Diploma/certificate	54	24.2%
	Bachelors equivalent	95	42.6%
	Masters	24	10.8%
	Doctorate	2	0.9%
State/ Territory	NSW	71	31.8%
	VIC	60	26.9%
	QLD	46	20.6%
	WA	23	10.3%
	SA	18	8.1%
	ACT	1	0.4%
	TAS	3	1.3%
	NT	1	0.4%
Total		223	100.0%

Data collection and screening

The marketing literature does not provide clear guidelines to determine the interval between two data collection phases of a test-retest study, and contains studies that used intervals of 1 year, 4 weeks, 2 weeks or even 1 week for this type of assessment (Freling et al., 2011; Tu et al., 2012; Vandecasteele and Geuens, 2010; Zemack-Rugar et al., 2012). Considering the resources available, two surveys were conducted with an interval of 4 weeks. Qualtrics survey platform helped develop an online survey instrument to collect data. The survey instrument incorporated the brand cool scale, and was used in the same form for both the surveys with a 4-weeks interval. In the first survey, 300 respondents rated three randomly assigned brands on the scale over a period of 7 days. The online database from the Qualtrics platform was downloaded in a format compatible for SPSS software (*Qualtrics Data Export*). Screening the database for incomplete and patterned responses to account for validity concerns resulted in excluding 48 responses (Brakus et al., 2009; Hair et al., 1998; Thomson et al., 2005). The remaining 252 respondents were invited after 4 weeks to participate in the second survey. Over a period of 8 days 223 of the invited respondents took the second survey. In the second survey, respondents rated the same brands they rated in the first survey. The online database for the second survey was downloaded and screened for incomplete and patterned responses. The screening did not lead to any exclusions, and thus a total of 223 responses were included in the test-retest reliability assessment.

Analysis

Summing the items ratings provided the composite scale score. In a similar fashion, score for each of the dimensions was also calculated. The data collected from two different surveys with a 4-weeks interval resulted in a pair of scores for each dimension and the scale. The correlation coefficients for pairs of scores were calculated to assess the test-retest reliability (DeVellis, 2016; Freling et al., 2011; Lynch Jr et al., 2010; Zemack-Rugar et al., 2012). As the marketing literature commonly refers to a correlation of .70 or higher to indicate a strong relationship, the test retest reliability was assessed by examining whether correlation coefficients exceeded or approached .70 (Aaker et al., 2007; Freling et al., 2011; Malhotra, 2007; Tu et al., 2012; Vandecasteele and Geuens, 2010; Zemack-Rugar et al., 2012).

2.4 Chapter summary

This chapter presented the methodology used across different studies in this thesis. The relevant research paradigms were considered, compared and contrasted to locate the thesis in a pragmatic paradigm. Then the chapter outlined the research design by detailing the methods of sampling, data collection, and analysis used for each of the studies included in the thesis. The outlined research design includes methods that were chosen after considering available alternative methods, existing recommendations, and relevant research practices. The findings from the studies are discussed in the next three chapters: Chapter 3 (A conceptual framework of cool); Chapter 4 (Qualitative interview findings); and Chapter 5 (A scale to measure brand cool).

CHAPTER 3: A CONCEPTUAL FRAMEWORK OF 'COOL'

3.1 Chapter Introduction

Chapter 2 provided details of the methodology applied across the three studies of this thesis. Chapter 3 discusses the first of the three studies. The first study focused on developing a framework to understand and explicate cool as a concept. The study helped develop a conceptual framework of cool by conducting a systematic literature review across disciplines and a subsequent thematic analysis to integrate understandings of cool from different contexts. The study identified that the conceptual framework can be useful for both commercial and social marketing. In addition, the literature review identified that studies on cool are rare in relation to social marketing (Bird and Tapp, 2008). However, according to the literature, an increasing use of cool in social marketing has been noticed in recent years (Asbury, Wong, Price, and Nolin, 2008; Farrelly et al., 2002; Jordan, 2012). This indicates an emerging relevance of cool, yet a scarcity of studies in the area. Therefore, the relevance of cool to social marketing was also assessed in this study by analysing a number of social marketing programmes that associated with cool. The conceptual framework of cool and the analysis of relevant social marketing programmes in light of this framework is presented next, in the first paper of the thesis: **A conceptual framework of cool for social marketing.** The paper was submitted to and subsequently published in the *Journal of Social Marketing* (Mohiuddin et al., 2016).

3.2 Paper 1: A conceptual framework of cool for social marketing

3.2.1 Abstract

Purpose - The purpose of this article is to present a conceptual framework of cool for social marketing through a comprehensive literature review and integrating extant literature on cool.

Design/methodology/approach - A comprehensive search and review of extant literature across social marketing, business disciplines, arts, psychology, social sciences and humanities was undertaken to develop an understanding of cool and its relevance to social marketing. The review permitted developing a comprehensive set of characteristics that are associated with cool.

Findings - A conceptual framework of cool organised according to the following dimensions is presented and discussed: 1. Deviating from norm, 2. Self-expression, 3. Indicative of maturity, 4. Subversion, 5. Pro-social, 6. Evasive, and 7. Attractive.

Originality/value - This article advances theoretical knowledge in the social marketing domain by offering a conceptual framework of cool, and suggesting a set of guidelines to develop cool social marketing programs.

Keywords: Cool, Coolness, Social marketing, Social campaign, Social brand
Article Classification: Conceptual paper

3.2.2 Introduction

'Cool' is a concept that is often used in a marketing context, commonly meaning – hip, fashionable, attractive, desirable, or excellent (Rahman, 2013; Warren and Campbell, 2014). Identifying the influential presence and the gradual permeation of 'cool' in modern society, commercial marketers have been engaging with the idea of cool in marketing since the 1960s, and investing in heavily focused market research on what is cool since the 1990s (Belk et al., 2010; Fuller and Thygesen, 1997). The alcohol and the tobacco industry have historically used cool imagery to promote brands, and cool has been utilised in marketing socially visible products such as fashion accessories, sports accessories, electronics, consumables, music, and music accessories (Hoek and Jones, 2011; Saxton, 2005). Focusing on cool in marketing elicits favourable responses from teenagers and young adults, and young consumers emulate behaviours that they consider cool (Belk et al., 2010; Gaskins, 2003; Saxton, 2005). Studies have found that embedding cool in brands, and in products such as footwear and electronics can have a positive impact on consumer attitude and behaviour (see Im et al., 2015; Sriramachandramurthy, 2009). Given the demonstrated influence of cool on consumer behaviour in mainstream marketing, understanding cool and embedding it in social marketing programmes holds the potential to induce pro-social behaviour (Bird and Tapp, 2008). Bird and Tapp (2008) identified the influence of cool on teenagers and young adults, and considered possible ways to embed cool into the design of social marketing programmes. In particular, Bird and Tapp (2008) identified that cool could often be the most relevant and attractive to young people who could also be more susceptible to thrill-seeking and risk-taking activities including harmful behaviours such as binge-drinking, smoking, and drug-taking, to which social marketing has often been employed.

A selection of social marketing programmes such as Truth®, VERB™, and the suite of Social Branding® campaigns delivered by Rescue Social Change Group (Rescue SCG) have attempted to engage with cool to influence the behaviours of adolescents and young adults in relation to tobacco, obesity, alcohol, and violence (Fallin, Neilands, Jordan, and Ling, 2015; Wong et al., 2004; Zucker et al., 2000). However, whilst the initial writings on cool in social marketing by Bird and Tapp (2008) has suggested the utility of cool for social change programmes, there is a lack of thorough understanding on what cool is, and if and how it can be embedded into social marketing programmes.

In some contexts, 'cool' naturally complements the attempt of social marketing to influence target markets in deviating from established norms of greater society – for example, the Truth® anti-smoking campaign encouraged rebellion when smoking was a fairly normative behaviour (Zucker et al., 2000). However, this can work in the opposite direction if cool is used against behaviours that are not normative, and can work in opposition to what is considered cool. Whilst 'deviating from the norm' is just one of many constructs that have been associated with cool, this example illustrates that understanding and appropriately using cool in social marketing is important. Furthermore, a comprehensive understanding of cool can also help social marketers to understand existing risky behaviours such as drug-abuse and unsafe sex among target groups.

Given the potential importance, yet current lack of understanding of cool in social marketing, this paper aims to address gaps in the knowledge-base in the following three ways. First, a comprehensive literature review identifies the key characteristics of cool. This helps in identifying elements of cool that can inform the design and delivery of social marketing programmes. Second, a conceptual framework of cool is presented, which helps social marketers wishing to consider the concept. Third, the article provides some relevant guidance for embedding cool in social programmes.

The article is structured as follows. The literature review considers the evolution of cool as a concept, and discusses why and how teenagers and young adults relate to cool. The emergence of cool as an important focus in marketing research is then discussed, followed by a discussion on the existing literature on cool in social marketing. This analysis identifies some important gaps in the knowledge-base that are discussed. The methodology undertaken for the literature review, and for the development of a conceptual framework of cool is then presented. The next section identifies and discusses the following key dimensions of cool that form the framework: (1) deviating from norms; (2) self-expression; (3) indicative of maturity; (4) subversive; (5) pro-social; (6) evasive; and (7) attractive. The article then highlights the conceptual and practical implications of the conceptual framework, provides some guidance for social marketers for considering the use of cool in social change programmes, and offers some ideas for future research.

3.2.3 What is cool?

As cool has permeated modern society in many contexts, researchers across disciplines such as anthropology, psychology, and marketing research have approached it from different perspectives. These perspectives include studying cool as a cultural phenomenon (Frank, 1998; Gerber and Geiman, 2012), as a stage in life (Danesi, 1994), as a personality trait (Dar-Nimrod et al., 2012), as an attitude (Pountain and Robins, 2000), and as a design attribute (Sundar et al., 2014). The multitude of perspectives in the literature on explicating what cool is can create difficulties in grasping the concept. Cool is often considered an elusive concept by authors (Gurrieri, 2009; Nancarrow et al., 2002). This seeming elusiveness of cool can be attributed to the fact that cool is socially constructed and bestowed upon an object or an individual by an audience; and an object or an individual is cool only to the extent that others consider it cool (Belk et al., 2010; Gurrieri, 2009). However, recently presented context-specific models of cool by researchers such as Rahman (2013) and Sundar et al. (2014) espouse the belief that an underlying structure of cool in a broader context can be determined. Before considering the utility of a conceptual framework of cool for social marketing, the following sections consider the evolution of the concept, its relevance to consumers and particularly teenagers and young adults, and its current role in marketing and social marketing.

3.2.4 The evolution of cool

Although cool can be traced back to the early-1400s in Nigeria where the term 'cool' meant "grace under pressure", the contemporary cool emerged from African-American jazz musicians (Belk et al., 2010, p. 189). Many African-American jazz musicians of the 1920s portrayed cool subversion to the dominant Caucasian culture of the US through their music, stage presence, and life-styles. The associations of cool with marginalised and oppressed groups, authentic heritage, irreverence, irony, composure, self-grooming, mystique, confidence, and substance-abuse can be related to this history of cool. The progressive Caucasian audiences of these jazz musicians embraced the composed expression of rebellion of the musicians to express their own individuality during the 1940s (Belk et al., 2010). The liberal movements of the 1960s such as the civil rights movement and the sexual revolution permitted cool to evolve through the influence of hippie culture, and this associated cool with autonomy, rebellion, individuality, social justice, empowerment, and enlightenment (Frank, 1998). The association of cool with the hippie culture permitted its identification with the ecology movement and the anti-commercial movement, and may also have provided cool with a broader access to the mainstream society. The efforts of commercial marketers to embed cool in marketing during the 1960s also led to the commercially mediated globalisation of cool (Belk et al., 2010). Cool-focused marketing of the 1960s associated cool with driving aspirations, and being fun and attractive.

Cool further evolved through the cool-focused marketing of the 1980s that targeted youth markets, and this associated cool with consumerism and cosmopolitanism (Bookman, 2013; Frank, 1998). The advancement of communication technology, and the development of individually consumable technology contributed to further evolution of cool after the 1990s (Belk et al., 2010). The association of cool with materialism may be related to these developments (Bookman, 2013). The emergence of hipster culture during the 2000s was associated with cool (Lanham, 2008), though hipster lifestyles are now often subject to pastiche – identifying the transient nature of cool. Some authors suggested that the evolved, overused, globalised, and mass-marketed cool represented a weaker version of cool, incapable of connoting the strength of the meaning it once had had (Sundar et al., 2014). Sundar et al. (2014) suggested that research on cool should aim at identifying the strongest expressions and perceptions of the concept. However, expressions of cool vary across different segments (Warren and Campbell, 2014), and explicating and defining cool in a broader context is likely to be more useful in understanding cool from a social marketer's perspective. To help understand the relevance of cool to social marketing, it is helpful to first discuss why consumers are motivated by cool.

3.2.5 Why consumers are motivated by cool

Much of the work on consumer motivations for cool has focused on teenagers. O'Donnell and Wardlow (2000) suggested that attaining could be a universal motivation for behaviour adoption among adolescents. The physiological and psychological changes experienced during adolescence cause teenagers to develop new self-identities and new values, replacing their childhood identities and values that are shaped by family (O'Donnell and Wardlow, 2000). Accordingly, teenagers are motivated towards self-expression, autonomy, and irreverence towards the existing authority figures and family. As teenagers identify the discrepancy between the new ideal self and actual self, they face a destabilisation of self-worth, which is known as "narcissistic vulnerability" (O'Donnell and Wardlow, 2000, p. 13). Narcissistic vulnerability motivates a teenager to attain stability of her self-worth through group affiliations and assurances from peers. Teenagers seek to attain attractiveness and popularity for affiliations of teenage sub-groups, as these are the most salient criteria for inclusion in these sub-groups (O'Donnell and Wardlow, 2000). Gerber and Geiman (2012) and Gurrieri (2009) suggested that teenagers sought those groups for affiliation that were exclusive, separatist, and had a sense of superior status. These sub-groups were often the cool groups, and affiliation of such a group provided a teenager the sought stabilisation of self-worth.

Teenagers also address the need for self-worth by seeking empowerment and by performing "grown up" behaviours (Cullen, 2010, p. 502; Kirkland and Jackson, 2009, p. 284). To address this need, teenagers use "omnipotence" as a strategy, whereby they deny vulnerability and adopt a false sense of bravado (O'Donnell and Wardlow, 2000, p. 14). This omnipotence may explain the association of cool with risk-taking and thrill-seeking behaviours such as drug-abuse and sexual permissiveness (see Belk et al., 2010; Bird and Tapp, 2008; Gurrieri, 2009; Nancarrow et al., 2002; Pountain and Robins, 2000). The stabilisation of self-worth provides a teenager the confidence and composure that is associated with the "grace under pressure" or cool. Therefore, the preference for cool is driven by the needs for self-esteem, autonomy, and exclusive sub-group affiliation, to address insecurity regarding one's self-worth.

However, cool is not something that only teenagers aspire to and are motivated by to adopt behaviours. Gaskins (2003) suggested that cool could be relevant to and influence the motivations, attitudes, and behaviours of adults in their late twenties and even thirties. The need for reducing insecurity of self-worth may explain why adults in their thirties may retain the preference for cool from their teenage. Importantly, research has found that cool trends often originate among consumer segments that are outside the mainstream, commonly the social minority, and often have a tendency to take risks (Maher, 2005; Southgate, 2003b).

Given that the existing literature suggests that consumers can be significantly motivated by cool, that it can influence consumer attitudes and behaviours, and that cool is particularly relevant among social minority groups, risk-takers, and young people, the relevance of cool to social marketing becomes apparent. Many social marketing programmes focus on influencing pro-social attitudes and behaviours among youth, risk-takers, and social minorities. Therefore, if social marketing programmes can successfully embed cool into their design and delivery, this holds potential to successfully influence such consumers. To help further identify this potential, the existing literature on cool in marketing, and in social marketing is discussed henceforth.

3.2.6 Cool in marketing research

Reviewing the extant literature reveals that the understanding of and the integrative conceptual frameworks of cool are underdeveloped despite the interest of marketing in cool (Rahman, 2013; Warren and Campbell, 2014). Belk et al. (2010, pp. 190-191) identified that the initial understanding of cool for marketing was limited to the "black aesthetic". Hence, marketers focusing on cool from the 1960s onwards searched for the expressions of African

American identities such as basketball, rap music, and hip-hop, and embedded them in marketing (Belk et al., 2010). As cool evolved, marketers developed an understanding of the unconventional nature of cool, which was readily available from the minority groups such as the hippies and countercultural groups. Consequently, marketers have promoted the cultural expressions of minority groups, and this process has been termed by some authors as the 'stealing', 'hijacking', or 'manipulation' of cool (Belk et al., 2010, pp. 191-192; Southgate, 2003b, p. 8). Gladwell (1997) and Nancarrow et al. (2002) related the wider adoption of cool trends to the Diffusion of Innovation Model by Rogers (2010). This model explains how, why, and at what rate new ideas and technology spread through cultures. Cool-focused marketing relies on 'coolhunting', on actively participating in developing the meanings of cool trends, and on promoting these trends to consumers (Gurrieri, 2009; Saxton, 2005; Southgate, 2003b). Coolhunting is a market research practice that focuses on the early identification of cool trends (Fuller and Thygesen, 1997; Gurrieri, 2009). Coolhunting research agencies identify and engage with trendsetters and opinion leaders to learn about emerging trends, and carefully monitor what is seen as cool (Gurrieri, 2009; Southgate, 2003b). In the absence of a suitable conceptual framework of cool, coolhunting has become a thriving industry over the past two decades (Gurrieri, 2009; Warren and Campbell, 2014). Coolhunting agencies recently started facilitating the diffusion of cool by ensuring that expert cool consumers and coolhunters endorse cool trends for brands, in addition to performing their original role of identifying cool trends (Gaskins, 2003; Gurrieri, 2009). Some authors suggested that cool-focused marketing in this manner reduced the time required to diffuse a cool trend in the market (e.g., Gaskins, 2003; Palla et al., 2004; Southgate, 2003b).

Several authors suggested that developing conceptual models of cool would be more effective for marketing managers than relying on coolhunting (Sbarbaro et al., 2011; Southgate, 2003b). The resources required for constantly monitoring and understanding cool, and the involvement of marketers who might not have appropriate insights and understanding of cool motivated these authors to favour conceptual frameworks of cool over coolhunting (Nancarrow et al., 2002; Southgate, 2003b). Only recently researchers have begun developing models that define cool for different marketing contexts. O'Donnell and Wardlow (2000) presented a Theory of Origins of Coolness to understand what motivated teenagers to attain cool. Gurrieri (2009) took a Cultural Systems Approach to explain how marketers embedded meanings in cool trends, whilst Gerber and Geiman (2012) demonstrated the use of Social Relations Model to show the dependence of coolness of an individual on the evaluation by others. Rahman (2013) presented a factor-based model regarding the meaning of the term 'cool' to young cosmopolitan consumers, and Sundar et al. (2014) presented a factor-based model identifying the relevant characteristics for designing cool technology products. However, these existing models and conceptual frameworks of cool in marketing addressed context-specific interests rather than presenting a broader and integrative framework of cool. This suggests that clarification of the key constructs of cool, and development of an integrative conceptual model of cool could assist both social marketers and mainstream marketers alike.

3.2.7 Cool in social marketing

Despite the mainstream commercial marketers' interest in cool, and the perceived influence of cool on vulnerable teenagers and young adults, there is a paucity of work considering cool in the social marketing sphere. Bird and Tapp (2008) provided a general discussion on the concept of cool for social marketing, focusing on the possibility of developing cool social campaigns for teenagers and young adults by understanding the needs of and speaking the language of this segment. They also identified some conundrums of embedding cool in social marketing by identifying that cool might be 'subversive', 'rebellious', and 'illicit' in nature (Bird and Tapp, 2008, p. 18), while social marketing agendas were identified as representing and maintaining the tone of authority in its communications. Identifying that cool might be motivated by the need to belong, to rebel, to appear more grown-up, and to express individuality, Bird and Tapp (2008) suggested that focusing on social threat, rejection of authority, and the importance of successful careers and relationships could be possible ways to prevent teenagers and young adults from uptake of risky behaviours. Bird and Tapp (2008, p. 26) cited the example of Truth® anti-smoking campaign, which tried to influence teenagers in rebelling against smoking by positioning the tobacco companies as manipulative authority figures.

Bird and Tapp (2008) also identified that the objective of social marketing required inducing pro-social behaviours and deviating from existing norms of mainstream society, e.g. for living sustainably when many people do not, or eating healthily when obesity is increasing across the world. A key characteristic of cool is deviating from the norms of mainstream society (Belk et al., 2010; Dar-Nimrod et al., 2012; Im et al., 2015), and this may potentially complement social marketing efforts to change normative behaviours. Bird and Tapp (2008, p. 27) also discussed how teenage subcultures typically possessed a varying range of cool expressions, but did not explicate how social marketers could incorporate this information in strategising. Indeed, beyond the work of Bird and Tapp (2008), conceptual and discursive work on cool in social marketing is limited, and there remains a lack of insight on how cool can be used in social marketing practice.

Examining some examples of social programmes can identify insights as well as some challenges for cool in social marketing. As identified earlier, the Truth® campaign did align with the constructs of cool – particularly rebellion, subversion, rejection of authority, deviation from the norm, and pro-social change. The Truth® youth anti-tobacco campaign was launched in Florida, USA in the late 1990s and was created as a pro-social brand. It used a counter marketing strategy to identify how the tobacco industry had lied and manipulated young people to start smoking. The campaign encouraged youths to rebel against the industry by not smoking. The Truth® campaign also sought to empower the youth and appealed to their need to appear grown-up by engaging them in social critique and advocacy to fight back against Big Tobacco (Zucker et al., 2000). By incorporating ideas of rebelliousness, deviation from the norm of smoking, and self-expression - Truth® used key constructs that are associated with cool. Furthermore, the campaign has been highly successful (see Farrelly, Davis, Haviland, Messeri, and Healton, 2005), and has been influential in reducing rates of teen smoking in the USA from 23% in 2000 to 08% in 2015 (Miech, Johnston, O'malley, Bachman, and Schulenberg, 2016). The Truth® campaign is an example of the potential of creating a successful cool pro-social brand.

Other social campaigns such as VERB™ attempted to utilise cool to promote physical activity to 'tweens' (9-13 year olds) in the US. The VERB™ campaign aimed at establishing unorganised physical activity as cool, countering the normative belief of tweens that physical activity only included organised sports. Based on research on the target segment, the Centers for Disease Control and Prevention decided to use marketing to promote being physically active as cool to tweens through VERB™ in the early 2000s (Wong et al., 2004). The research identified the key values and needs of the market such as seeking self-esteem, approval of peer group, confidence, making independent decisions, being perceived as attractive, and avoidance of impositions by adults (Asbury et al., 2008). The VERB™ chose media and marketing tools that are relevant to tweens - for example, using street teams to distribute branded products in locations relevant to tweens, partnering with brands favoured by tweens, and using celebrity endorsement. The campaign also invested in experiential marketing such as a Nickelodeon Wild and Crazy Kids (WACK) tour (Heitzler, Asbury, and Kusner, 2008). The campaign implementation also included a 'coolness tip sheet' for teachers and parents to ensure that they supported tweens in physical activity (Wong et al., 2004). Impact analysis showed that 67% and 56% of teenagers perceived the VERB™ brand as cool in the second and the third year of the campaign respectively (Asbury et al., 2008, p. S186). The impact analysis demonstrated that embedding cool could be effective in social campaigns that targeted young and vulnerable segments. However, the decrease in the perceived coolness from the second year to the third year could have resulted from an incomplete understanding of cool by the designers of the programme. The support from adults for physical activity induced by the 'coolness tip sheet' eliminated any hint of rebellion from the campaign affecting the coolness of VERB™. Furthermore, by promoting physical activity as a normative behaviour, the VERB™ campaign could have countered the 'deviation from norm' that is required for coolness. Notably, no research in relation to the campaign explored the concept of coolness although the VERB™ brand decidedly set out to be cool. This dearth of understanding regarding cool could have affected the social campaign. This identifies that care and strong conceptual and practical understanding of cool is important if it is to be successfully embedded into social marketing programmes.

The Truth® and VERB™ campaigns approached all tweens or teenagers with single brands, irrespective of their psychographic differences, whereas Bird and Tapp (2008) identified that expressions of cool varied for different subcultures. More recent social campaigns have acknowledged the importance of sub cultures when embedding cool in social marketing. The suite of Social Branding® campaigns of the Rescue SCG in the US that targeted a range of behaviours including tobacco, obesity, alcohol, and violence, employed field research to understand the interests, lifestyles, influencers, and habits of different subcultures among youth (Fallin, Neilands, Jordan, Hong, and Ling, 2015). Based on psychographic segmentation research, Rescue SCG identified identity-based segments of teenagers in the US such as Preppy, Mainstream, Hip Hop, Country, and Alternative (Jordan, 2012). The research insights on the segments provided an understanding of the identity demarcations and values associated to behaviours of the segments, and how relevant values could be used for behaviour change (Jordan, 2012). As an example, insights regarding hipsters identified that they possessed low levels of perceived health risk, valued personal freedom highly, appreciated the creative arts, were a tightly-knit community, supported being environmentally friendly, and had negative attitudes towards capitalism (Jordan, 2012). These insights align with constructs of cool such as self-expression, anti-commercialism, and being pro-social, and were used in the Social Branding® campaigns to encourage behaviour change. The campaigns used integrated channels such as mass media, digital and social media, events, social group influencers, and street marketing to develop brands that addressed the unique values and subcultural rituals among different target segments.

While these examples suggest some utility in using cool for social marketing to influence vulnerable teenagers and young adults, and suggest the importance of contextual insights, they do not provide a comprehensive conceptual understanding of what cool is, nor elaborate how it can be used in social campaigns. Furthermore, as certain pro-social behaviours do become normative – for example not smoking, this can create a conundrum as deviant behaviours like smoking can be seen as cool, and have been promoted in the past as cool to hipsters by the tobacco industry (Burton, Hoek, Nesbit, and Khan, 2015; Rugkåsa et al., 2001). Examining the current literature suggests that a strong understanding of cool, and a conceptual framework of cool are absent in social marketing (Im et al., 2015; Sundar et al., 2014; Warren and Campbell, 2014). The full potential of designing cool social marketing programmes is thus yet to be realised. This article addresses this gap by identifying the key characteristics of cool and presenting a conceptual framework of cool that is developed by performing a comprehensive review and analysis of extant literature on cool across various disciplines. The article also presents the conceptual and practical implications of the presented framework.

3.2.8 Methodology

3.2.8.1 Literature Review Methodology

A comprehensive literature search and review was undertaken following the PRISMA protocol for conducting such reviews (see Moher et al., 2010) across several disciplines to develop a holistic understanding of cool for social marketing. The review of literature was focused on developing a comprehensive understanding of cool, identifying the characteristics associated with cool, and understanding the relevance and utility of these characteristics and the concept of cool for social marketing. The review also facilitated the development of a conceptual framework of cool to help inform future social marketing programmes.

Table 3.1

Literature search strategy

Database	*Brief description of database*	*No. of records returned[a]*
Emerald Insight	The Emerald Insight database provides access to the full text of articles from journals, mainly in the subject area of management, marketing and consumer research	543
Business Source Complete	The Business Source Complete database offers comprehensive full-text and abstracts for the most important scholarly business journals including marketing and consumer research	662
WARC (World Advertising Research Centre)	The WARC database provides access to advertising and marketing information from various sources. It include organisations of various countries, monographs, conference papers, abstracts and the full-text of various marketing journals	149
Scopus	The Scopus database is a multidisciplinary abstract and citation database. It contains over 18,000 peer-reviewed journals in the scientific, technical, medical, and social science fields	2,156
Science Direct	The Science Direct database contains the full text of journals and reference works, and also includes citations and abstracts of journals from life sciences, medical, technical, and physical sciences, arts, business, management, social sciences, and psychology	1,279
ProQuest Dissertations and Theses	The ProQuest Dissertation and Theses database contains full text of accepted research theses from universities worldwide	64
		4,853

Notes: [a]Common search parameters used: Search term(s): truncation of “cool” (cool*) in conjunction with (AND) any of the following truncations: market*, cultur*, person*, hip*, brand*; OR with any of the following terms: product, design, attitude, stage, life (extant literature suggests that the construct of cool is the most relevant to social marketing in the contexts of culture, personality, design, attitude, stage in life, and marketing. Hence the Boolean search included any of these terms with the term “cool”); subject areas included: all available subjects; document type: all available types; fields searched: title, abstract, keywords; date range: all available years; language of text: English

The search parameters included published academic and grey literature including primary research, conceptual articles, literature reviews, commentaries, and commercial reports concerning cool. The search included literature from the following databases: Emerald Insight, Business Source Complete, WARC database, Scopus, ScienceDirect, and ProQuest Dissertation and Theses database. A list of relevant search terms was created to help conduct the review. This involved reading a selection of seminal articles concerning cool to identify appropriate words, synonyms, and contexts to be used in the literature searches (see Bird and Tapp, 2008; Dar-Nimrod et al., 2012; Frank, 1998; Gerber and Geiman, 2012; Pountain and Robins, 2000; Sundar et al., 2014). Combinations of the following search terms using Boolean logic (AND, OR, NOT) and including truncated and wildcard search term characters (e.g. *) were used in the search strategy (e.g. cool*, market*, cultur*, person*, hip*, brand*, product, design, attitude). Searches were limited to publications in the English language only, and focused on all available literature with no date restrictions. The search for academic literature was undertaken first in May 2014, and again in June 2015 across the six databases to include a comprehensive range of literature.

The initial search returned 16,417 records that included literature from the scientific, technical, medical, and social science fields. As literature from environmental sciences, health sciences, biological sciences, engineering, and physical sciences commonly refer to cool in the context of temperature or heat, these disciplines were excluded from the search. This screening of disciplines yielded a total of 4,853 potentially relevant records (see Table 3.1). Citations of these 4,853 records were imported on EndNote for the subsequent literature selection process.

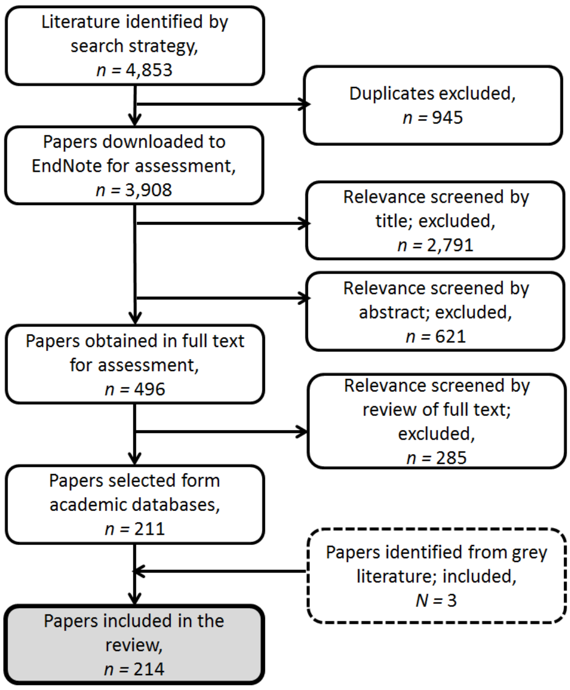


Figure 3.1: Flowchart of literature selection process

The literature screening and selection strategy following the PRISMA protocol (Moher et al., 2010) is outlined in Figure 3.1. The screening of papers for duplication resulted in excluding 945 papers. The remaining 3,908 papers were screened for relevance based on their titles and abstracts, and 3,412 papers were excluded at this stage. The full text of the remaining 496 papers were imported onto EndNote and examined, leading to the identification of 211 relevant articles. In addition to the search using academic databases, a search for grey literature was conducted using Google advanced searches using the same search terms, date ranges, and language parameters as the academic searches. This identified a further three relevant papers, giving a final total of 214 relevant papers that were included in the review and subsequently read, analysed and interpreted to identify key characteristics of cool, and to help develop a conceptual framework of cool.

3.2.8.2 Methodology for identifying characteristics and the development of conceptual framework

The review and subsequent analysis of the literature on cool focused on - identifying key terms and language used to describe cool in extant studies and literature, developing a comprehensive set of cool characteristics, and developing an understanding of the potential interrelations and differences among the characteristics.

Document analysis methods can facilitate eliciting relevant understanding and meanings from the texts of different types of documents through various qualitative analysis methods (see Bowen, 2009). Here document analysis was conducted during the literature review to identify, collate, list, and triangulate the key terms and language used to describe cool, and to develop the set of characteristics for cool. The initial analysis to identify terms associated with cool in the literature was complemented by conducting triangulation of the terms to identify potential repetition and synonyms to produce a list of 139 adjectives associated with cool across different contexts. This triangulation method required comparing different documents for cross-checking observed phenomenon (Bowen, 2009). The discourses and conceptual papers (e.g., Gurrieri, 2009; O'Donnell and Wardlow, 2000; Southgate, 2003b), qualitative studies (e.g., Belk et al., 2010; Kirkland and Jackson, 2009; Knobil, 2002; Nancarrow et al., 2002), and the quantitative studies (e.g., Dar-Nimrod et al., 2012; Sundar et al., 2014; Warren and Campbell, 2014) were compared to triangulate the adjectives associated with cool. Excluding synonyms reduced this to a set of 78 adjectives. As these 78 adjectives collectively relate to cool in different contexts, each of these adjectives is not relevant to cool in every context. Hence, the adjectives were then grouped into seven core characteristics through an iterative process of review, regular discussions between the researchers, repeated consultation of the extant literature, and reflexive thought to identify patterns and relationships between the adjectives of cool (Bowen, 2009). This process permitted identification of a parsimonious set of characteristics, which is helpful in understanding cool when faced with numerous adjectives to describe cool. The difficulty of understanding cool from numerous adjectives is mentioned in the existing context-specific explication studies on cool (see Dar-Nimrod et al., 2012, p. 177; Rahman, 2013, p. 626).

Two independent marketing experts outside the research team were then consulted to check the reliability of the set of characteristics. Each of these marketing experts had a PhD in Marketing, were active researchers in academia, and had relevant industry experience. The first expert was asked to individually group the adjectives into the set of the seven characteristics, and inter-coder reliability check was conducted. The coefficient of agreement (the total number of agreements [n = 65] divided by the total number of coding decisions [n = 78]) was 83.3% at this stage. The second expert resolved nine of the disagreements, improving the inter-coder reliability to 94.9%. Four disagreements on terms such as ‘competence’, ‘drive for success’, ‘aspirational’, and ‘friendly’ were not resolved from this exercise. These four associations were identified as somewhat questionable in describing cool in the literature by Dar-Nimrod et al. (2012), and they suggested that these associations were the results of commercial marketers’ efforts to market a more acceptable version of cool to the mainstream market. Apart from checking the reliability of the theme groupings, consulting the two independent experts also identified 17 adjectives as being repetitive with synonymous connotations. The resultant groupings of the adjectives indicating the core characteristics of cool are presented in Table 3.2.

Table 3.2

Characteristics of cool and relevant social campaign tactics

Characteristics	*Adjectives associated with cool in literature*	*Some suggestions to associate the characteristics of cool with social marketing programmes*	*Example of suggested social marketing programme tactics*
Deviating from Norm	Unconventional, non-conformity, rebellious, fresh, innovative, creative, counter-culture, exclusive, extra-ordinary, niche, separatist.	• Highlight that a competing behaviour is a mainstream norm. • Communicate the flaws in the existing norm. • Communicate that the desired behaviour change is deviating from the norm.	• Truth® highlighted that normative beliefs regarding smoking were based on manipulative claims by tobacco companies.
Self-expressive	Individuality, unique, authentic, personalised, anti-commercial, improvisation, self-esteem, sexuality, humour, interactive.	• Provide social platforms to target segments to provide opportunities for self-expression. • Be authentic. • Use humour.	• Truth® engaged target segment in social critique and advocacy to fight back against tobacco companies. • VERB™ provided means for participants to develop games by themselves.
Indicative of maturity	Autonomous, genuine, sincere, purposeful, composed.	• Allow unaided and independent evaluation of existing norm. • Include suitable suggestions from the target segments. • Facilitate the contribution of the target segment to the campaign. • Promote maturity as a feature of the programme.	• Truth® did not use instructive messages, allowed target segments to make unaided and independent decisions. • Truth® involved target segments in tactic development.
Subversive	Irreverence, confident, hedonism, trend-setting, novelty oriented, ever-transient, spontaneous, unpredictable, indulgent, thrill-seeking, risk-taking, substance abuse.	• Arrange exclusive attractive events such as small concerts. • Communicate how the social programme and the desired behaviour change can be hedonistic and irreverent.	• Rescue SCG arranges concerts for target segments. VERB™ arranged road tours for target segment.
Pro-social	Social justice, democracy, anti-exploitation, overcoming insecurity, self-development, empowerment.	• Communicate how the existing behaviours are not pro-social. • Promote how the desired behaviour contributes to pro-social objectives.	• Truth® highlighted that normative beliefs regarding smoking were based on manipulative claims by tobacco companies.
Evasive	Calm, low-profile, subtle, mysterious, ironical, difficult to understand.	• Incorporate irony in messages. • Use selective media to communicate to target segment.	• Truth® developed ironical messages. • Rescue SCG uses selective media to communicate to target segments.
Attractive	Interesting, fun, good quality, aesthetic, status within sub-group, fashionable, popular.	• Arrange exclusive attractive events such as small concerts. • Involve attractive celebrities that are appreciated by the target segments. • Gain insight and understanding of sub-cultures and relevant rituals and traditions and use activities that appeal to these cultural elements.	• Rescue SCG arranges concerts for target segments. VERB™ arranged road tours for target segment. • VERB™ used attractive celebrity appreciated by target segment for endorsement.

3.2.9 A conceptual framework of cool

Cool can vary with context, across subcultures, and over time, creating difficulty to define the concept. To explicate the concept of cool, one has to remove the layers of contexts and subcultural connotations from the cool expressions and identify the core characteristics of cool. Once these core characteristics are understood, contextual factors relating to the application and understanding of cool can be considered. Figure 3.2 illustrates a conceptual framework of cool that presents seven key characteristics identified from the literature review and subsequent analysis. These seven characteristics of cool are discussed next in the following sequence: (1) deviating from norms, (2) self-expressions, (3) indicative of maturity, (4) subversive, (5) pro-social, (6) evasive, and (7) attractive.

Deviating from norms

Warren and Campbell (2014) empirically tested the relationship between deviating from norm and cool, and proposed 'unconventionality' as the single most important characteristic of cool. Other authors identified this characteristic through terms such as – counterculture, extra-ordinary, non-conformity, fresh, innovative, creative, exclusive, niche, and separatist (see Belk et al., 2010; Frank, 1998; Gurrieri, 2009; Kirkland and Jackson, 2009; Maher, 2005; Nancarrow et al., 2002; Southgate, 2003b; Sundar et al., 2014). The empirical study by Warren and Campbell (2014, p. 551) suggested that deviations should be "bounded" to be cool, ensuring that these deviations did not harm others, nor disrupted the social order. They further identified that the degree of deviations to attain cool was dictated by the subculture of the relevant social unit - a higher degree of deviations from the norms of mainstream society was proven as required to attain cool in a "countercultural" subculture (Warren and Campbell, 2014, p. 553). Hence cool can be characterised by undisruptive deviations from the norms of greater society in a manner that matches the values of the relevant smaller social unit. Deviating from the norms of mainstream society can be interpreted as rebellion by mainstream society, and existing literature associated cool with rebellion (e.g., Belk et al., 2010; Bird and Tapp, 2008; Kirkland and Jackson, 2009). However, cool is often desired by larger mainstream groups within society resulting in the gradual adoption of cool expressions by mainstream society (Dar-Nimrod et al., 2012; Kirkland and Jackson, 2009), and cool expressions gradually become the new norm and subsequently lose exclusivity to ultimately turn uncool. This results in a continuous quest for deviations from norms and indicates the transience of cool (Belk et al., 2010; Bird and Tapp, 2008; Palla et al., 2004). The discussion on the VERB™ social campaign highlighted the importance of understanding this characteristic for social marketers.

Self-expressions

Motivated by the desire to express an independent identity and to attain self-esteem, teenagers and young adults replace normative expressions with self-expressions. Expressions of individuality can provide uniqueness and authenticity to a deviation from norm (Dijk, Nooijer, Heinrich, and Vries, 2007; Rahman, 2013; Saxton, 2005; Southgate, 2003a). Several authors associated uniqueness and authenticity with cool (see Drissel, 2009; Fuller and Thygesen, 1997; Nancarrow et al., 2002; Southgate, 2003a). Social identities of individuals are formed through social interactions, which provide an audience the opportunity to evaluate the coolness of a person (Bookman, 2013; Drissel, 2009; Gurrieri, 2009). Belk et al. (2010) suggested that cool individuals possess a certain mastery of social skills that help identify them. However, other forms of expressions are needed for individuals with limited social skills in a world where cool is increasingly globalised. Pastiche in clothing and music are forms of expressions of individuality or authenticity (Bird and Tapp, 2008; Fuller and Thygesen, 1997), but it is difficult to maintain individuality for a mainstream consumer by only consuming cool products in an age of mass-production. Saxton (2005) suggested that personalisation or improvisations of mass-produced products by a consumer could enable them to attain cool. The need for independent identity of teenagers and young adults was identified in the formative research for the Truth® campaign (Farrelly et al., 2002), but was not addressed by the campaign tactics. However, VERB™ addressed this need by allowing tweens to develop games and explore their individual interests (Asbury et al., 2008).

Indicative of maturity

The narcissistic vulnerability of teenagers and young adults motivate them to establish mature identities (O'Donnell and Wardlow, 2000), and the approval of seemingly more mature peer groups can confirm the desired mature identity socially. The meaning of cool as “grace under pressure” or composure is indicative of the relationship of mental maturity and coolness. A way to establish the mature identities for teenagers is by mimicking adult behaviour that are unexpected from or prohibited to teenagers. The need to be perceived as "grown-up" often leads teenagers to underage smoking, drinking, and sexual permissiveness (Bird and Tapp, 2008; Cullen, 2010; Hastings et al., 1997). However, a genuine and sincere expression of maturity is considered cool (see Rahman, 2013; Sundar et al., 2014), and cool is rarely attained by mimicry. Activities driven by pro-social purposes are often considered signs of maturity (Nancarrow et al., 2002; O'Donnell and Wardlow, 2000), and sincere self-expressions backed up by purpose are perceived as cool among teenagers (Drissel, 2009; Kirkland and Jackson, 2009; Maher, 2005; O'Donnell and Wardlow, 2000). The Truth® social campaign captured the need for maturity of the youth by allowing them to make their own informed decisions, and only focused on clarifying how tobacco influenced youth through manipulative marketing (Bird and Tapp, 2008). Truth® also captured the essence of maturity by involving the youth in making decisions regarding the campaign – such as choosing the theme 'Truth' for the campaign (Zucker et al., 2000). On the other hand, VERB™ actively provided detailed information to tweens regarding modes of participation in the campaign activities, and these were sometimes mediated by adults (see Heitzler et al., 2008). These strategies of VERB™ contradicted tweens' need for maturity, and could have negatively affected the coolness of the campaign.

Subversive

Teenagers embrace omnipotence or a "false sense of bravado" as a defence mechanism against narcissistic vulnerability (O'Donnell and Wardlow, 2000). This leads to a tendency of subversion of others and the existing norms. Authors associated irreverence, confidence, and hedonism with cool (see Belk et al., 2010; Bird and Tapp, 2008; Dar-Nimrod et al., 2012; Southgate, 2003a; Warren and Campbell, 2014), and these may express a teenager's subversion of others. The subversion of mainstream norms may explain why cool is associated with novelty-orientation and trend-setting. Again, the spontaneous, indulgent, thrill-seeking, and risk-taking behaviours such as substance-abuse and speeding may result from the omnipotence of teenagers and young adults. Bird and Tapp (2008) related cool to illicit behaviour, which is related to this subversion and the omnipotence, and this subversive characteristic of cool can largely explain the discomfort of social marketing regarding cool. However, the analysis of the Truth® campaign suggests that if an avenue of directing this subversive nature of teenagers can be authentically established, social marketing can benefit from it. Truth® directed this subversion against tobacco companies, and substantiated the direction through educating teenagers on the false and manipulative claims of tobacco companies.

Pro-social

The possibility of having a positive impact on society and individuals can contribute to the coolness of a deviations from norm, although it might appear contradictory. The mainstream norms and beliefs that govern the rules and regulations of a society cater to the needs of mainstream society, and may be seen as irrelevant and unjust by minority groups. Cool expresses doubt regarding the legitimacy of mainstream norms (Pountain and Robins, 2000, p. 23). This understanding may explain the why cool tends to originate in the subcultures of minority segments (see Maher, 2005). Southgate (2003a, pp. 14-15) suggested that associating social justice with a brand can positively influence its coolness, and argues that a low-cost airline that instilled a sense of social justice with its brand was considered the coolest airline brand in the early 2000s. Dar-Nimrod et al. (2012) also identified the association of pro-social values with cool in their empirical research. The evolution of cool in the nineteenth century was associated with pro-social causes such as movements against marginalisation, against exploitation of minority, against war, against commercial exploitation, for civil rights, for freedom of expressions, for environment, and for democracy (see Belk et al., 2010; Drissel, 2009; Frank, 1998; Gurrieri, 2009; Nancarrow et al., 2002; Rahman, 2013). Cool's association with illicit activities such as drug-abuse, smoking, underage drinking, or underage sexual permissiveness (Bird and Tapp, 2008; Cullen, 2010; Warren and Campbell, 2014) contradicts this characteristic of cool, but its associations with the attempts to indicate maturity, and with subversion explains the tension cool faces in between pro-social values and subversion. Warren and Campbell (2014, p. 551) proved that deviations from "illegitimate" norms are considered cooler than deviating from "legitimate" norms in their study. Social marketing attempts to induce pro-social behaviour, and hence the pro-social nature of cool is the characteristic that is the most compatible with social marketing.

Evasive

"Grace under pressure" is innately indicative of the evasiveness of cool, suggesting that a cool person is capable of displaying composure and a calm demeanour in a situation that is likely to elicit emotional outbursts. Belk et al. (2010, p. 183) called it the “unemotional mask”. The evasiveness of cool, in addition to its pedigree in low-profile and hence unfamiliar minority subcultures may have contributed to the association of cool with mystery. Nancarrow et al. (2002) suggested that this mystery enhanced the desirability of cool to larger society. The evasiveness of cool is also displayed by subtlety, irony, and indirect expressions, which have been associated with cool by authors (e.g., Bird and Tapp, 2008; Dar-Nimrod et al., 2012; Kirkland and Jackson, 2009; Nancarrow et al., 2002). Belk et al. (2010) and Nancarrow et al. (2002) suggested that understanding these subtle and ironical expressions required insider-knowledge of relevant subcultures or a certain level of mental maturity, and this insider-knowledge or maturity could facilitate exhibiting both evasiveness and subversion without disrupting social order. Fuller and Thygesen (1997) and de Chenecey (2003) advised marketers to use unconventional and low-profile media, and to avoid mass-media to market cool. Such avoidance of mass-media may instil a sense of insider-knowledge within cool subcultures while creating a sense of mystery in the mainstream market. The formative research for the Rescue SCG Social Branding® campaigns provided insider-knowledge to develop marketing relevant to the target segments, and segment-specific activities such as concerts (see Fallin, Neilands, Jordan, and Ling, 2015) provided a sense of protection regarding those insider-knowledge in the target segments. Although the Truth® campaign used advertising in mainstream media for communication (Bird and Tapp, 2008), the ironical and evasive expressions in the advertisements contributed to the coolness of the campaign.

Attractive

Desirability is considered a consequence of cool, but there is a debate on whether attractiveness represents this consequence or is an antecedent to being considered cool (see Sundar et al., 2014; Warren and Campbell, 2014). Characterising cool by pro-social subversive deviations from norm for self-expressions that are indicative of maturity, and leaving out attractiveness does not suffice in explaining why cool can be seen a fashionable. Several authors also suggested attractiveness as a separate characteristic of cool (Dar-Nimrod et al., 2012; Gerber and Geiman, 2012; Rahman, 2013; Sundar et al., 2014) that could be gained through other features such as aesthetics, fun, good quality, novelty, creativity, interesting interactions, and styles of gestures (Im et al., 2015; Maher, 2005; Myers, 2004). Bird and Tapp (2008) suggested that a sense of ‘forbidden pleasure’ associated with breaking the mainstream norms might contribute to making cool attractive to teenagers. In addition, research insights of Rescue SCG suggested that cool crowds such as hipsters appreciated the creative arts (Jordan, 2012). This supports the association of cool with aesthetics and attractiveness. The elements of VERB™ campaign such as the use of relevant attractive celebrities or the enjoyable street events (Asbury et al., 2008) also incorporated this characteristic of cool.

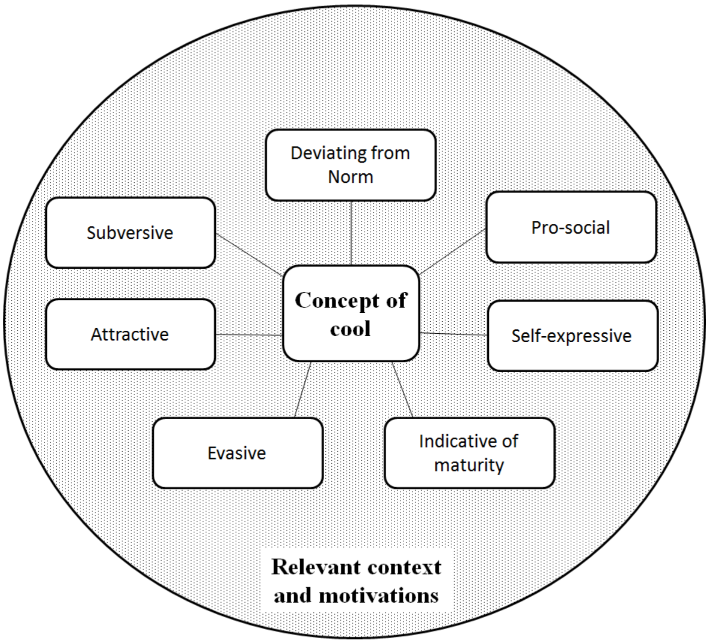


Figure 3.2: A conceptual framework for cool

Figure 3.2 presents the seven characteristics of cool identified here, and also acknowledges the significance of contexts and subcultures in the development of cool expressions. Apart from possessing the presented characteristics, cool expressions are also influenced by a range of contextual factors including the languages and the meanings of expressions in a subculture. The understanding of the characteristics of cool presented here can help explain the innate tensions in between some of the discussed characteristics such as between maturity and subversion, between evasiveness and attractiveness, and between deviating from norm and being pro-social. Understanding the effect of these tensions on consumers in light of their subcultures may provide insight for understanding cool expressions. Current marketing research techniques such as coolhunting can help identify the expressions of cool, but a previous lack of clear understanding of the concept of cool and its characteristics is a major limitation. Therefore, the conceptual framework presented here can go some way to address the limitations.

3.2.10 Discussion

This article moves forward from the preliminary discussion of cool in social marketing by Bird and Tapp (2008) to provide an understanding of cool by presenting a conceptual framework of cool. It presents the key characteristics of cool, and also identifies their relation to and potential utility in social marketing. It further addresses the need identified by Sbarbaro et al. (2011) and Southgate (2003b) for a conceptual framework of cool in a broader marketing context. Some pertinent conceptual and practical implications of the conceptual framework of cool in social marketing are discussed next.

3.2.10.1 Conceptual Implications

Scholars have previously identified that there is a lack of clear understanding of what cool is as a concept (Im et al., 2015; Sundar et al., 2014; Warren and Campbell, 2014). The present study aims to help advance understanding of cool by presenting a conceptual framework that identifies the key characteristics of cool. This framework builds upon and integrates existing models that are only context-specific or only focused on the origins and vectors of cool. For example, the Theory of the Origins of Coolness by O'Donnell and Wardlow (2000) provided an understanding of the motivations for teenagers to attain cool, but did not define cool. The Cultural Systems Approach to cool by Gurrieri (2009) explained how marketers actively engaged in developing meanings to cool trends, and the Social Relations Model to measure cool by Gerber and Geiman (2012) showed the dependence of cool on the evaluations of an audience. These models neither attempted to explicate what cool is as a concept, nor discussed its characteristics. The model by Dar-Nimrod et al. (2012) identified two dimensions of cool personality such as "cachet" and "contrarian" cool – highlighting the tensions within the characteristics of cool as a personality trait, without actually explicating what cool is. Empirical study by Rahman (2013) focused on the vernacular usage of the term rather than identifying the characteristics of cool. The explication of cool by Sundar et al. (2014) specifically addressed technological products, and did not provide an understanding of the characteristics of cool in a broader context.

The conceptual framework presented here builds upon and integrates the understandings from these models, along with the understanding from extant literature on cool from a wide range of disciplines, to explicate what cool is, and how it is signified, i.e. what are the key characteristics of cool. The suggestion is that if social marketing programmes are to be effective in influencing teenagers and young adults as cool – they should engage with the presented characteristics. The presentation of a conceptual framework of cool for social marketing can inform future research and practice by offering an understanding of the key characteristics of cool, and where some of the tensions and conundrums for using cool in social marketing may exist. The conceptual framework indicates that characteristics of cool such as 'deviating from norm' and being 'pro-social' may naturally complement the broad social marketing objective of inducing pro-social behaviour change. Furthermore, the framework can help social marketers with an understanding of what cool is.

3.2.10.2 Practical Implications

Cool has the potential to be used to influence pro-social attitudes and behaviours in a range of social marketing programmes. In particular, social marketing programmes that target young people, social minority groups, and risk-takers may benefit from embedding cool into their design and delivery, given that cool is often relevant to these groups. Whilst some existing campaigns have attempted to use elements of cool to influence consumers in relation to tobacco, obesity, alcohol, and violence, such efforts have not been based on a comprehensive conceptual understanding of cool. Using the framework presented here can help social marketers gain a clearer understanding of the key characteristics of cool, and how cool can be embedded in programmes. To develop cool pro-social campaigns, social marketers should try to identify how to best relate to the characteristics of cool – for example, identify how they deviate from the norm, facilitate self-expression, be indicative of maturity, be subversive, be attractive, highlight pro-social outcome, and engage with evasiveness. Some practical suggestions for embedding cool in social marketing programmes are discussed henceforth and are summarised in Table 3.2. Practitioners should be encouraged to develop creative ways to associate social campaigns with the key characteristics of cool beyond the selected suggestions that are presented here.

Emphasising an existing harmful norm in a social campaign might seem redundant or idiosyncratic to social marketers, but cool social campaigns should clearly highlight that a competing harmful behaviour is a mainstream norm, and should also communicate the flaws in the existing norm with ironical messages. This will assist teenagers and young adults to question the legitimacy of the norm unaided and independently. Use of ironical informative messages instead of instructional messages can engage social campaigns to autonomy, maturity, and evasiveness, while subtly communicating the pro-social objective. Cool social campaigns could provide platforms to teenagers and young adults – for example, through social media or forums to facilitate the expression of their concerns regarding an 'illegitimate' norm, and to present their suggestions to counter the norm. This can provide the target segment the opportunity for self-expressions. The campaign tactics should incorporate the suitable suggestions from the target segments, and the contribution of the target segment in the form of participation or suggestion must be acknowledged. This will provide the recognition to the demonstrated maturity of the target segment. If possible, attractive events such as exclusive concerts and parties should be arrange to relate to the subversive nature of the target segments, and such approaches have been successfully used in the Social Branding® programmes targeting youth smoking (Fallin, Neilands, Jordan, Hong, et al., 2015). Such events need to be small, and event information should be exclusive for a target segment, only made available through selective media, to align with the evasive nature of cool. If possible, social marketers should involve attractive celebrities chosen by the target segments in campaigns to make these more attractive for them.

When considering how to embed cool in social marketing, it should be acknowledged that it is important to understand the context and subcultures relevant to target segments for designing cool social campaigns. Therefore, field research aiming to understand the context, and what subcultural values distinctly define the identities of target segments should always be carried out prior to developing tactics of a cool social campaign. Such research should identify the meanings of a desired pro-social behaviour, and of the competing behaviours within the target segments. The findings from such research should guide the development of the campaign tools, and the tone of all messages and communications with the target segment.

3.2.10.3 Future Research

Given that the proposed framework of cool for social marketing presented here is purely conceptual, research to develop, refine, and test an empirical framework would be welcome. Qualitative or mixed-method research could be conducted to test the relevance of the key characteristics of cool identified in the conceptual framework presented here, and to identify if there are additional characteristics that may be relevant but have not been discussed in existing literature. Quantitative research could then further test, and validate a model of the characteristics of cool. Further research may also attempt to identify the effects of the different cool characteristics on consumer behaviour – specifically on subjective or social norms. Research to develop a reliable measurement scale for cool could also be beneficial to social marketing for evaluating the coolness of different pro-social brands. Such a scale may also facilitate comparing the different tactics for developing cool pro-social brands, and their effects.

3.2.11 Conclusion

Cool has been shown in the extant literature to positively influence attitudes and behaviour adoptions of risk-taking vulnerable teenagers and young adults (see Belk et al., 2010; Gaskins, 2003; Im et al., 2015; Saxton, 2005; Sriramachandramurthy, 2009). Heretofore, a comprehensive understanding of, and an integration of key characteristics of cool from the perspective of social marketing programmes has been lacking. This article addresses the paucity in the understanding regarding cool in social marketing, and presents a conceptual framework of cool. Based on the understanding of cool gained from a comprehensive literature review and subsequent analysis, cool is defined here as the attractive but evasive and subversive self-expressions to deviate from norm that signify maturity, and are justified by pro-social benefits of the deviations. Cool expressions vary across subcultures and according to contexts while conforming to this definition. It is hoped that the conceptual framework incorporating the key characteristics of cool, and the guidelines for developing cool social marketing programmes presented in this article may help enhance the effectiveness of social marketing programmes that engage with being cool.

3.3 Chapter summary

This chapter presented the first study of the thesis that resulted in a framework that provides a general understanding of cool. The chapter elaborates that a comprehensive search and review of literature across disciplines helped identify associations of cool in different contexts. Then a thematic analysis helped integrate these associations in developing the conceptual framework of cool. As the conceptual framework presented integrates understandings from different contexts, it is able to provide a holistic understanding of cool. The conceptual framework addressed an aim of the PhD thesis by identifying seven key associations of cool (deviating from norms, subversive, evasive, attractive, self-expressive, pro-social, and indicative of maturity). The framework can be extended to different contexts relevant to marketing. The understanding from the framework is thus useful in conceptualising cool in the context of brands. Equipped with the understanding, and the key associations of cool identified in this chapter, the research next focused on exploring cool with consumers and marketing experts in Study 2. The next chapter discusses Study 2 and its findings.

CHAPTER 4: FINDINGS FROM QUALITATIVE INTERVIEW STUDY

4.1 Chapter introduction

Study 1 presented in Chapter 3 developed a conceptual framework of cool by reviewing the literature on cool across disciplines. Study 2, the qualitative interview study was used to generate a long list of scale items. A qualitative analysis using deducting thematic analysis of the qualitative data helped support the conceptual framework of cool through empirical findings. Further analysis of the qualitative data was then conducted to generate insight on consumers' cool identities during adulthood, and how it evolved from their cool identities during adolescence. This chapter presents these insights from the qualitative interview study. In the relevant study 10 focus group discussions were conducted involving 47 consumers. The initial paper developed from the analysis and these insights, **Growing up with 'cool',** was submitted and subsequently presented at the *Australia New Zealand Marketing Academy Conference 2016*. The paper was published in the conference proceedings. Based on the feedback and suggestions from the conference, and the reviews by thesis examiners, the paper was modified and revised. This chapter presents the paper after the modifications as **Evolution in cool identities as adolescent consumers grow up**.

4.2 Paper 2: Evolution in cool identities as adolescent consumers grow up

4.2.1 Abstract

This paper uses consumer narratives to explore cool identities, and differences between cool identities of consumers from different life-stages – specifically, adolescents and adults. Ten group discussions involving 47 young adult consumers from Sydney, Australia provided narratives that were analysed and interpreted in this regard. Analysis of the narratives identify that consumers' cool identities can be understood in terms of seven dimensions: deviating from norms, subversion, evasiveness, attractiveness, self-expression, being pro-social, and indicating maturity. The study also identifies that cool identities of adolescent and adult consumers differ in three aspects: materialism versus idealism, communal identity versus individuality, and expansion of horizon. The paper proposes that these differences are related to the gradual changes in consumers' cultural capital as they progress through different life stages. The investigation of subcultural differences in cool identities by focusing on life stages is a new approach to exploring cool.

Keywords: Cool, adolescence, maturity, self-expression, identity.

4.2.2 Introduction

'Cool' is a dominant ideology of contemporary consumer culture (Nancarrow et al., 2002). Cool, as a cultural capital, is believed to help consumers negotiate their status within different social groups (Belk et al., 2010; Nancarrow et al., 2002). Mohiduddin et al. (2016, p. 140) define 'cool' as:

> "The attractive but evasive and subversive self-expressions to deviate from norm that signify maturity, and are justified by pro-social benefits of the deviations."

Dominant ideologies such as cool can inspire reasonable and replicable behaviour in consumers to assert their own identities when consumers interact with others (Arnould and Thompson, 2018). Researchers indicate that cool influences identity projects of consumers from different life-stages: tweens (9–13 year olds), teenagers, and young adults (Bird and Tapp, 2008; Mohiuddin et al., 2016; O'Donnell and Wardlow, 2000; Warren and Campbell, 2014). How cool ideologies in subcultural groups inspire consumers in asserting their own identities has been explored in the past (Belk et al., 2010; Nancarrow et al., 2002). However, how the different dimensions of what is considered cool influence consumers' identity projects has rarely been explored in the extant marketing literature. This identifies a relevant gap in the literature. Moreover, as cool ideologies can inspire identity projects of consumers from different life-stages, exploring how consumers' cool identities evolve across the life-stages is relevant in understanding these identity projects. The extant literature is devoid of any study that explores this evolution. Erikson (1994) highlights the importance of exploring such evolution by stating that consumers' identity projects can change through stages in life to privilege contemporary versions of an ideology. Therefore, the paucity of research to understand how consumers' cool identities evolve in different life-stages indicates another gap in the knowledge-base to understand cool identities of consumers.

Our study aims to address these gaps in the literature by first exploring the influence of different dimensions of cool in consumers' identity projects, and then by hypothesising and exploring how consumers' cool identity projects evolve through life-stages. By addressing these gaps, the study will provide marketers an understanding of which dimensions of cool are relevant to the construction of consumers' cool identities at which life stages, and the underlying reason of such relevance. The understanding will enable marketers in theorising and explaining the segmentation of cool consumer culture and the relevant market on the basis of life-stages. For marketing practitioners, the understanding will enable devising appropriate strategies to influence different segments of consumers with cool identity projects.

The paper begins by considering the literature on cool and its dimensions, and on the cultural capital that underpins cool subcultures. The study methodology which utilises interpretivist qualitative research practices is then discussed. It presents the research context as the transition of consumers from adolescence to adulthood, and explains data collection and analysis. Next, the research findings are presented and the implications of the study are discussed. Finally, limitations of the study and future research directions are identified before concluding the paper.

4.2.3 Theoretical framework

4.2.3.1 Dimensions of cool

Among the numerous studies on cool, few attempt to explicate its dimensions. Marketing studies on cool have primarily focused on the consumption of cool (Belk et al., 2010; Nancarrow et al., 2002), the implications of cool for marketing (Bird and Tapp, 2008; Olson, Czaplewski, and Slater, 2005), and methods of embedding cool in brands (Gurrieri, 2009; Southgate, 2003b). Although some studies identify specific aspects of cool, these studies do not propose frameworks that help understand cool in its entirety. For example, Belk et al. (2010) identify that cool is manifested through emotional control, 'cool style', and'knowingness', Bookman (2013) associate it with cosmopolitanism, Kirkland and Jackson (2009) associate it with empowerment, and Maher (2005) associate cool with metroethnicity. Some other empirical studies explicate dimensions of cool, but in specific narrow contexts. Sundar et al. (2014) explicate three dimensions of the cool of technology products as subculture, attractiveness, and originality. From a psychology perspective Dar-Nimrod (2012) explicate two dimensions of cool personality as cachet cool and contrarian cool. Rahman (2013) explicate seven dimensions of the vernacular use of the term cool as fashionable, eye-catching, sophisticated, unique, composed, entertaining, and amazing. Our literature review does not identify any specific study that proposes a framework of cool that is specifically relevant to the context of consumer identity. However, the review helps in identifying a multi-dimensional conceptual framework of cool by Mohiuddin et al. (2016) that can be relevant across different contexts.

Mohiuddin et al. (2016) explores cool across disciplines to propose a generic conceptualisation of cool that integrates the understandings from literature on cool from different contexts and disciplines. They propose a conceptual framework of cool based on an integrative discourse of the literature on cool dispersed by the context-specific and product-specific foci. This conceptualisation of cool proposes that cool has seven dimensions: deviating from norms, self-expressive, indicative of maturity, subversive, pro-social, evasive, and attractive. Considering the proposed relevance of the framework by Mohiuddin et al. (2016) across contexts, we adopt this framework in the context of consumers' identity projects. The seven dimensions of cool from the conceptual framework of cool by Mohiuddin et al. (2016) are briefly discussed next.

Deviating from norms is identified by Mohiuddin et al. (2016) as a key dimension of cool. They suggest an identity can attain cool by being different in key aspects from mainstream identities. Warren and Campbell (2014) also suggest that deviating from norms is the single most important characteristic of cool based on their experimental study on brand visuals and product packaging. Other researchers have indicated the relevance of this theme with cool using terms such as innovative, fresh, extraordinary, unconventional, and exclusive (Belk et al., 2010; Bird and Tapp, 2008; Frank, 1998; Gurrieri, 2009; Kirkland and Jackson, 2009; Nancarrow et al., 2002; Southgate, 2003b). The scope and degree of the deviation are clarified by Warren and Campbell (2014, p.555):

> "Perceptions of coolness increase when a brand or person seems autonomous in an appropriate manner. Consumers high in counterculturalism are critical of societal institutions and thus tend to perceive higher levels of autonomy to be cooler than do consumers lower in counterculturalism, who are more likely to consider autonomous behaviour inappropriate and, therefore, uncool."

Subversion is identified by Mohiuddin et al. (2016) as a separate dimension from deviating from norms. Cool identities may express subversion by non-conformity and a rebellion against the mainstream norms of consumption, society, or political ideology (Belk et al., 2010; Bird and Tapp, 2008; Frank, 1998; Goffman and Joy, 2007; Hastings, MacFadyen, and Stead, 1997; Heath and Potter, 2005; Hemetsberger, 2006; Holbrook, 1986; MacAdams, 2001; Pountain and Robins, 2000). Mohiuddin et al. (2016) argue that while subversion may include forms of deviating from norms, subversion differs from mere deviation in a sense of superiority compared to others – the followers of mainstream norms.

Evasiveness, Mohiuddin et al. (2016) argue, allows cool identities to coexist within mainstream society while being subversive of mainstream norms. They suggest the evasiveness of cool identities is evident in different forms across contexts, and provide three examples. First, cool identities may carefully maintain a low profile and avoid being highlighted. Second, cool identities may camouflage emotions. Third, cool identities may express subversion in creative and indirect ways such as by using irony.

Attractiveness is identified by Mohiuddin et al. (2016) as an innate capability of cool identities to attract others. They suggest that the attractiveness of cool may emerge from an identity's superiority in terms of intelligence, ability to entertain, acquired physical ability and skill, or superior aesthetics (Bookman, 2013; Dar-Nimrod et al., 2012; Kirkland and Jackson, 2009; Nancarrow et al., 2002; Southgate, 2003b; Sundar et al., 2014; Thompson, 1973; Whylly, 2008). Researchers on cool unanimously agree on the desirability it possesses.

Self-expressions, according to Mohiuddin et al. (2016), is related to a cool identity's uniqueness, originality, and authenticity. O'Donnell and Wardlow (2000) state that individuals develop the need for cool self-expression during adolescence, when they desire to express an independent identity separate from their family identity. Mohiuddin et al. (2016) indicate that self-expressions of cool identity are meaningfully related to an identity's uniqueness, and that in this regard self-expressions are different from mere deviation from norms.

Pro-social beliefs and motives, Mohiuddin et al. (2016) suggest, help cool identities in justifying deviating from and subversion against mainstream norms. They indicate that fairness, anti-exploitation, anti-commercialisation, democracy, and empowerment can be associated to cool through this dimension. Warren and Campbell (2014) suggest that a critical perspective of authority and mainstream social norms may motivate some consumers in deviating from those norms. Furthermore, they state on the basis of their experimental study (Warren and Campbell, 2014, p. 551):

> "Participants perceived a brand to be cooler when it diverged from an illegitimate norm but less cool when it diverged from a legitimate norm."

Indication of maturity in cool identities, Mohiuddin et al. (2016) argue, can take different forms. They suggest that it may take the form of mental maturity as in expressing subversion in a socially appropriate manner in some identities. Mohiuddin et al. (2016) suggest that it may also take a more concrete and less abstract form, such as adolescents mimicking adult behaviours such as smoking or consuming alcohol. O'Donnell and Wardlow (2000) identify that the appreciation of cool develops in individuals during adolescence, when they feel the need to develop independent mature identities.

Forms and the relevance of cool dimensions may be context-specific

Mohiuddin et al. (2016) suggest that the seven dimensions of cool are present across contexts, while context-specific cool may exhibit a varied level of engagement with each of the dimensions. We expect to observe the relevance of some of these seven dimensions of cool in the context of consumers' cool identity projects. It is evident from the above discussion that the dimensions may take different context-specific forms. For example, cool evasiveness may take the form of maintaining a low profile, camouflaging emotions, or irony. The attractiveness of cool may be related to an identity's intelligence, ability to entertain, acquired physical ability and skill, or superior aesthetics. Again, different degrees of deviation from norms may be seen as appropriate depending on the counterculturalim of the group in which a consumer belongs. According to Mohiuddin et al. (2016), the relevance and form of these dimensions may depend on subcultural differences. The marketing literature acknowledges that life-stages can influence consumers' consumption practices, and thus can be used for segmentations of the market according to consumer subcultures (Kotler and Armstrong, 2010). Therefore, life-cycle stages of consumers may influence consumers' consumptions and consequently cool identity projects by affecting the relevance of a cool dimension, or the form of the dimension. Moreover, the literature on consumer culture suggests that a consumers' consumption preferences are influences by the cultural capital the consumer possesses (Arnould and Thompson, 2018; Bourdieu, 1984, 1986; Holt, 1998), and different forms of capital consumers possess increase as they progress through life-stages. Therefore, to gain an understanding of how different life-stages may affect the relevance and form of a cool dimension in a consumer's identity project, we next discuss cool cultural capital.

4.2.3.2 Cool cultural capital

Scholars have often explored cool consumer cultures in relation to cultural capital (Belk et al., 2010; Bird and Tapp, 2008; Bookman, 2013; Maher, 2005; Nairn et al., 2008; Nancarrow et al., 2002). Belk et al. (2010), Maher (2005), and Nancarrow et al. (2002) state that cool consumer cultures include a form of cultural capital that is comparable to Bourdieu's (1984) perspective of cultural capital. Nancarrow et al. (2002) further draws parallels between the marketing of cool symbols and Bourdieu's (1984) 'cultural intermediaries'. Bird and Tapp (2008) suggest that how cool consumers distance themselves from relatively 'uncool' identities is similar to Bourdieu's (1984) observation of how French bourgeoisie distance themselves from the proletariat. Bookman (2013) explains the cosmopolitanism and aesthetic judgement of cool identities using Bourdieu's (1984) concept of 'habitus' and social status. Nairn et al. (2008) explains children's understanding of cool aesthetic through

Bourdieu’s (1984) perspective of what constitutes good taste. It is evident from this discussion that researchers in the past have explained cool consumer cultures from different perspectives using Bourdieu’s cultural capital theory. We take a different approach to explore cool identities using the cultural capital theory.

Consumers’ cultural capital and cool identity projects

Researchers suggest that cool, as a cultural capital, helps consumers negotiate their status within different social groups (Belk et al., 2010; Nancarrow et al., 2002). Bourdieu (1986) proposes that a consumer’s cultural capital is related to his/her consumption taste and preference, which project the consumer’s identity in negotiating status in different social contexts. Knowledge and skills individuals gain through their primary socialisation during childhood and as young adults are referred to as cultural capital by Bourdieu (1984). Therefore, a consumer’s cultural capital can be situated along a continuum from High Cultural Capital (HCC) to Low Cultural Capital (LCC; Arnould and Thompson, 2018). The cultural capital, Bourdieu (1986) suggests, can be converted to economic or social capital, and these two forms of capital can also be converted to cultural capital. Notably, economic capital primarily constitutes of wealth, and social capital primarily constitutes of prestige (Henry and Caldwell, 2018).

As a consumer progresses through life stages the consumer’s knowledge and skill that forms the basis of the consumer’s cultural capital is likely to increase. Hence, a consumer is likely to possess lower cultural capital at as an adolescent than as an adult. Based on this reasoning, a consumer is likely to demonstrate LCC preferences in consumption during adolescence, and HCC preferences during adulthood. Holt (1998) identifies six dimensions along which a consumer’s cultural capital may be reflected in the consumer’s consumption taste and preference (Henry and Caldwell, 2018): (1) material versus formal aesthetics, (2) critical versus referential reception of media, (3) materialism versus idealism, (4) local versus cosmopolitan (expanded horizon and acceptance of others), (5) communal versus individual form of subjectivity, and (6) autotelic versus self-actualising leisure. Along these dimensions, LCC consumers demonstrate: preference for consumptions with material or utilitarian value, referential and less critical views of media, display of consumption capability rather than ideals, consumptions that focus on immediate social surrounding rather than being cosmopolitan, communal consumptions, preference for autotelic leisure (leisure as a means of relaxation). HCC consumers tend to prefer consumptions that are related to the opposite end of the continuum (Holt, 1998). The six dimensions to distinguish the consumption tastes and preferences of LCC and HCC consumers are summarised in Table 4.1.

Table 4.1

Dimensions distinguishing low and high cultural capital of consumers.

[Developed based on Holt (1998) and Henry and Caldwell (2018)]

Dimensions	*Low Cultural Capital (LCC) consumer preferences*	*High Cultural Capital (HCC) consumer preferences*
1. Material versus formal aesthetics	Consumptions with material or utilitarian value	Consumptions highlighting aesthetic refinement (even if they somewhat compromise utility)
2. Critical versus referential perception of media	Referential views of media (consumers accept media commentary and try to relate to their own lives)	Critical views of media (consumers view media commentary as subject to interpretation)
3. Materialism versus idealism	Material display of capability (due to socialisation under conditions of necessity)	Consumptions that highlight ideals and refinement
4. Local versus cosmopolitan (expanded horizon)	Consumptions focusing on immediate social surrounding (the familiar)	Consumptions that provide horizon-expanding experiences (the unfamiliar and new)
5. Communal versus individual form of subjectivity	Communal consumption (to fit into their social groups)	Consumptions highlighting individuality and authenticity (being true to oneself)
6. Autotelic versus self-actualising leisure	Autotelic leisure (as a means of relaxation)	Self-actualising leisure (as a means of self-development)

As we believe adolescent consumers demonstrate LCC preferences and adult consumers demonstrate HCC preferences in consumption, we expect that six dimensions that differentiate LCC and HCC consumption preferences will manifest them in the consumer construction of cool identities during adolescence and adulthood. For example, we expect adolescent consumers' cool identities to relate to material or utilitarian value of consumption, referential views of media, material displays of capability, and communal consumption. On the other hand, we expect adult consumers' cool identities to relate to aesthetic refinement, critical views of media, ideals and refinement, and an expansion of horizon.

4.2.4 Methodology

4.2.4.1 The research context: adolescent vs. adult cool identity projects

Although researchers are interested in consumers' identity projects in different life stages, adolescence is a stage that is often discussed in identity formation literature (Erikson, 1994). Studies that focus on exploring cool identities in the extant literature also tend to focus on adolescent consumers' identity projects (Belk et al., 2010; Bird and Tapp, 2008; Bookman, 2013; Maher, 2005; Nairn et al., 2008; Nancarrow et al., 2002). Therefore, we chose to compare cool identities of adolescent consumers against those of adult consumers considering the probable significant shift in cultural capital in this transition. Attainment of educational qualification and skills reaches a certain benchmark during this transition which is likely to distinguish adult cultural capital from adolescent cultural capital. Being a 'student in a high-school' was used in the qualitative interviews as a proxy to identify adolescent cool identities and collect relevant narratives.

4.2.4.2 Recruitment of participants

A purposive sampling to include consumers who are knowledgeable about cool trends and brands was used for the group discussions (Malhotra, 2007; Patton, 1990). Consumers aged between 18 and 30 years from Sydney, Australia who perceived themselves as knowledgeable on cool consumption were recruited through a commercial marketing research firm. As outlined in Table 4.1, the three criteria suggested by de Souza (1997) to identify such consumers: 'relationship with the social environment', 'emotional intelligence', and 'leadership in collective situations' were adapted for the study. A consumer's relationship with social environment was assessed by the individual's ability to be included in peer groups, interact in work or study environment, and exposure to different cultures; a consumer's self-reported perceived emotional intelligence was used as a proxy for emotional intelligence; a consumer's leadership in collective situation was assessed by his or her perceived opinion leadership. In addition to the criteria suggested by de Souza (1997), a consumer's age, educational qualification, financial status, and the consumer's engagement with cool brands, trends, and contexts were also considered. A screening questionnaire incorporated these criteria, and was used during recruitment (see Appendix G).

Table 4.1

Participant recruiting criteria [source: adapted from de Souza (1997)]

Criteria	*Indicators used*
Relationship with the social environment*	• Inclusion in peer groups* • Interaction in work/study environment* • Exposure to different cultures
Emotional intelligence*	• Perceived emotional intelligence*
Leadership in collective situations*	• Perceived opinion leadership*
Other	• Engagement with cool brands, trends, contexts • Age • Educational qualification • Financial status

* from: de Souza (1997)

These young adult consumers emerge from a cohort that was exposed to a globalised and commoditised cool, and have experience of marketing-mediated cool identities both as adolescent and adult consumers. These young adult consumers, due to their lived experiences and transition from adolescence to adulthood, could compare their adolescent cool identities against their adult cool identities. A total of 47 consumers were recruited through a commercial marketing research agency for participation in the study. The age of participants ranged from 21 to 29 years, 23.4 years being the average. The participants included 25 female and 22 male consumers, and 77% completed secondary schooling. The composition of participants is presented in Table 4.2. Participation in the study was voluntary, but each participant received a pre-paid debit card worth $70.

Table 4.2

Sample composition for consumer group discussions

Description	*Number of participants*	*% of participants*
Age of participants		
18 – 22 years	36	77.6%
23 – 27 years	9	19.1%
28 – 32 years	2	4.3%
Gender of participants		
Male	23	48.9%
Female	24	51.1%
Highest level of education completed		
Secondary	36	77.6%
Tertiary	11	23.4%
Total	47	100%

4.2.4.3 Data collection

Data was collected through 10 focus group discussions with small groups of three to five consumers. The researchers adopted this method after trialling a few in-depth interviews, which were found to counter the objective of understanding market perceptions. The trial depth interviews revealed that an abstract social construct such as cool needed to be discussed in a group to some extent prior to eliciting relevant responses. Groups of eight to twelve participants are customary for group discussions in market research, but smaller groups can be useful in gaining deeper insights regarding a phenomenon (D. A. Aaker et al., 2007; Fern, 1982). However, very small groups may suffer from lack of varying ideas and stimulation (Malhotra, 2007). Considering these aspects, four to five participants were included in each group. D. A. Aaker et al. (2007) states that three to four groups are sufficient for a market research, as additional groups beyond four groups tend to provide little new information due to data saturation. The discussion and interactions within group members will have possibly influenced the participants' responses, but likely elicited somewhat detailed narratives.

Similarities and contrasts in the profile of participants can influence the perspectives introduced in a discussion, and needs consideration in determining the number of groups (D. A. Aaker et al., 2007; Malhotra, 2007). The consumers were split in three groups according to gender of the participants to account for probable gender-specific views. The first category included three female groups, the second category included three male groups, and the third set included four mixed-gender groups. Notably, Kirkland and Jackson (2009) and Cullen (2010) indicate the possibility of slightly different perceptions of cool based on gender. The gender-specific groups provided homogeneity in group composition which is considered essential in fostering discussions, whereas mixed-gender groups benefited from diverse perspectives (D. A. Aaker et al., 2007; Malhotra, 2007).

The focus groups were held at an arranged venue, and one of the researchers moderated the discussions. The participants were instructed to collect images of cool products and services three days prior to the discussions. Sharing these images in a focus group helped initiate the discussions, and the participants were discussed to explain how these images related to their perception of cool. Once all consumers in a group shared their experiences and perspectives, consumers were next asked to recall and reflect on their experiences, motivations, and expressions regarding cool from when they were adolescents. Member checks were conducted on five of the consumers who made themselves available for the study again at a later date. Member checks involved summarising key points from the discussion and seeking confirmation from consumers (Birt et al., 2016). At the end of discussions, the moderator concluded by thanking consumers for their time and cooperation, and handing out the compensation. Notably, consumer group discussions for the study lasted between 75 and 90 minutes. The unstructured discussions were recorded using an audio-recording device, and The moderator also took notes of expressions and other non-verbal cues of consumers during the discussions. The recordings were later transcribed, and were matched against the notes.

4.2.4.4 Analysis

The transcripts were reviewed to identify and list key terms and language to describe cool from the perspectives of adolescent and adult consumers. The analysis of data followed relevant established methods of analysing qualitative data in accordance with the discussion of Spiggle (1994). The terms were categorised in relevant themes against the seven dimensions of cool. A refutation process in relation to the themes between the researchers ensured that the themes do not omit probable aspects of the terms. Data relating to adolescent and adult cool identities of consumers were then compared to identify the differences between them. The differences were then interpreted through a cultural capital theory lens.

4.2.5 Findings

4.2.5.1 Dimensions of cool relevant to consumers' identity projects

The interpretation of the data from our study indicates that the dimensions of cool are relevant in consumers' cool identity projects. Specifically, we found evidence in favour of the seven dimensions of cool: deviating from norms, subversion, evasiveness, attractiveness, self-expressions, pro-social, and indicating maturity.

Deviating from norms

Deviating from norms appeared to be a common theme in relation to cool identity projects among our participants. The deviations discussed all seemed to relate to physical or material aspects of appearance. For example, clothing, fashion accessories, and styling of body hair were mentioned where deviating from norms could help project a cool identity. A participant narrated:

> "I think beard is still in the element of coolness, but if you are in a group of people who all have beards that's uncool. There has to be like a balance between the element of individuality along with the element of fitting in. It's tricky." [Group 6]

The relevance of deviating from norm with constructing a cool identity was further supported by a participant. The participant stated how consumption of food can help express deviating from norms:

> "A lot of people like sauerkraut to be cool, but my father has been making it for a very long time. If it's presented in a new and different way, food is cool. Average restaurants use a lot of sugar, whereas having pickles and organic vegetables in food is not that common. A lot of people have these foods from local restaurants in different areas … and they believe that that's cool." [Group 7]

One of our participants suggested that the deviation from norm to construct a cool identity need not be in the form of incorporating new elements, but can be a new way of presenting old elements. This aligns with the perspective of Bird and Tapp (2008) and Fuller and Thygesen (1997). They suggest that aesthetically presented pastiche can express coolness.

Subversion

Some participants indirectly established themselves as superior in status on the basis of cool during the discussions. These participants spoke of a demarcation between them, and the 'other' uncool consumers. To create this demarcation, these participants indicated that cool is beyond material aesthetics. This aligns with the discussion on material versus formal aesthetics dimension as a demarcation between HCC and LCC consumer preferences (Holt, 1998). One participant stated:

> "I don't think people are necessarily cool. Cool can be what they wear, and you might find that they are not who you expect them to be. I think you still find people trying to be hipsters…. wearing all black, and having a beard, and thinking they are cool. But they are all the same." [Group 6]

Subversion, in the form of demarcation between the cool and uncool identities where a cool identity possesses superior status compared to an uncool identity, also seems to be relevant to adolescent consumers. However, the material versus formal aesthetic aspect in creating the demarcation was not evident from participant narratives of adolescent cool identities:

> "In high school there is going to be a division (of the cool and the uncool), and you had to fit in. I did it, I took my mom to buy clothes that I thought others (cool groups) thought are cool, and tried to fit in. But after a while I became sick about trying to be 'cool'. So after high school I didn't have to think what others would think, and I am a lot more happy." [Group 6]

Evasiveness

Our participants provided evidence of one of the three forms of cool evasiveness discussed by Mohiuddin et al. (2016) in relation to cool identity projects. According to this form, cool identities are related to maintaining a low profile and avoid being highlighted. This may take the form of avoiding discussion of cool symbols and expressions with other consumers who do not belong to the same cool group. From a cultural capital perspective, cool has been related to protecting the capital in past studies (Belk et al., 2010; Bird and Tapp, 2008; Nancarrow et al., 2002). This helps explain such evasiveness. One participant narrated:

> "People may not want to share much about cool. I see someone with a bag, and I say, "That is so cool, where did you get it?" And they are like (showing a reluctant shrug, and saying), "China", and don't give the details. These people, may be, know that what they are carrying is cool, and don't want to give away." [Group 2]

Attractiveness

Researchers on cool identities unanimously agree that cool identities are desirable (Bookman, 2013; Dar-Nimrod et al., 2012; Kirkland and Jackson, 2009; Nancarrow et al., 2002; Southgate, 2003b; Sundar et al., 2014; Thompson, 1973; Whylly, 2008). Mohiuddin et al. (2016) suggest that this attractiveness may emerge from an identity's superiority in terms of intelligence, ability to entertain, acquired physical ability and skill, or superior aesthetics. Most of our participants agreed that cool is desirable, but did not provide further understanding. However, one of our respondents identified this dimension in the form of acquired physical ability and skill in relation to cool identity construction. The participant stated:

> "Free rock-climbing, that is cool. It's not cool if you fall down. It's cool that you have put in the effort, and trained for it, and you are good at it, and have the upper body strength that you can do it properly." [Group 7]

Self-expression

Participants in our study provided evidence to support the perspective of Mohiuddin et al. (2016) that cool is related to self-expressions, and is beyond mere deviating from norms. Our participants indicated that the self-expression is related to a specific kind of exclusivity and uniqueness. They indicated that while Bourdieu (1984) considers that a form of capital can be converted to other forms of capital, our participants indicate that economic capital cannot necessarily be converted to cool cultural capital. A participant argues this perspective by highlighting the relevance of self-expression to cool identity:

> "New things can be cool…. New things can be expensive, and people with a lot of money can afford that. But that's not cool, cool is not about affordability with a lot of money. If a celebrity is wearing a $10,000 dress, I'm not going to be able to buy that. It's about what we can emulate. Cool is affordable, yeah, but not like super easy to get. You don't want some uniform. You want to look different compared to the person next to you." [Group 2]

However, our participants also indicated that self-expressions may not be as relevant to adolescent cool identities as to adult cool identities. A participant stated:

> "Being unique wasn't cool in high school, you'd get picked on. [Group 6]

Pro-social

Some of our participants supported the relevance of this dimension with cool identity. They indicated that a sense of fairness may be relevant to constructing cool identities. Other participants did not necessarily agree, and indicated that cool does not need to be beneficial to the society in any way. A participant who supported the relationship of being pro-social with a cool identity stated:

> "Street art is cool, graffiti is not cool, it's just vandalism. If a kid is helping out a kid that is being bullied, that's cool, because not a lot of people would do that. It's not just about taking risks." [Group 3]

The narrative of a participant further clarified the relationship of being pro-social with construction of cool identity. Mohiuddin et al. (2016) identified that the pro-social dimension of cool can be evident in a sense of fairness, empowerment, anti-exploitation, and anti-commercialisation. The narrative of the participant specifically highlighted that adopting a commercial and exploitative perspective can damage a cool identity project. The participant narrated:

> "We all know celebrities have make-up artists and photographers. If they were looking like that naturally that I would be devastated. They do that for companies, and the more followers they have, the more money they will get. So they are doing it for the money. Cool has to look effortless. An Instagram photo has to look natural, like a lot of effort was not put in it. It shouldn't be a look that required you to prepare for hours. Kylie Jenner posted photos of herself all beautiful and wearing nice clothes. And later she tried to come out clean by saying that she is sorry that she didn't tell her followers that she was doing it for the money, and she stopped doing it. And then she was asking for ways how she could now make money. I'm like, come on honey, that's not cool." [Group 3]

Indicating maturity

Indicating maturity dimension presented by Mohiuddin et al. (2016) was supported by our participants. This aligned with the perspective of O'Donnell and Wardlow (2000) that developing independent identity separate from one's family identity that pervaded childhood is relevant to cool. A participant stated:

> "Being an adult is cool to someone who is not an adult. It's defined by your peers. If you are being told by your parents that you are cool, and you think you are cool, you have to be kidding yourself. You have to be told by your peers." [Group 2]

Mohiuddin et al. (2016) further suggest that indicating maturity in adolescents may take a concrete and less abstract form such as adolescents mimicking adult behaviours such as smoking or consuming alcohol, and in adults it may take the form of mental maturity such as the expression of subversion in a socially appropriate manner. Some of our participants provided evidence to support this perspective. The difference in the two forms of indicating maturity was highlighted by a participant:

> "It's interesting ... the people who were cool in high school, we still call them 'cool', but they are not cool anymore. They are the ones going out and drinking, and smoking, and getting wasted. They look like a bunch of jerks now, and to think they were cool. They sort of stopped growing-up. They look childish. Sometimes it's ridiculous how hard they (adolescents) are trying to be subversive. Cool is constructive, it's not destructive. In high-school you wanted to be grown-up. We don't want to be (more) grown-up, but more like … be matured. Maturity includes responsibility. You can't be mature if you are not responsible." [Group 7]

4.2.5.2 Cultural capital in relation to consumers' cool identities

Consumers incorporate HCC preferences in cool identities as they grow up

Taking a cultural capital perspective, we hypothesised that a consumer is likely to demonstrate LCC preferences in consumption during adolescence, and HCC preferences during adulthood. Data from our study supported this hypothesis. We specifically found that the participants indicated changes in preference that align with three of Holt's (1998) dimensions to distinguish HCC preferences from LCC preferences. The dimensions were: materialism versus idealism, communal consumption versus individuality, and expansion of horizon. Holt (1998) suggests that LCC consumers prefer consumption that display material or physical capability, whereas HCC consumers prefer consumptions that help portray ideals and refinement. Accordingly, we expected a shift in adolescent consumers focus on material or physical display of capability to alignment with ideals in adulthood. Some participants supported this perspective. One of our participant stated that consumers participated in binge drinking behaviour in adolescence were considered cool during adolescence, but not during adulthood as it showed lack of responsibility.

Adolescent consumers construct cool identities through communal consumptions, whereas adult consumers construct them through individuality. This was highlighted by some of our participants who stated that they needed to 'fit in' with cool groups through specific consumptions that were common among members of these groups. These participants identified that such 'fitting in' was not necessarily require in the construction of cool identities as adults. Some participants also extended this departure from communal consumption in adulthood to an expanding horizon. One participant narrated:

> "Cool as kids versus cool as adults is different. Your cool is school-driven in high school, and then there is this big world that you enter. You may call it the micro-cool, and there is this macro-cool. In the real world it's open, you are not in your neighbourhood, in your area. There are things that you keep on exploring. What happens is that you don't see that (what you earlier perceived cool) as cool anymore, and then others tell you that's cool. You don't try too hard, if it happens, it happens."
> [Group 3]

Notably, expansion of horizon is identified as another dimension to distinguish HCC consumer preferences from LCC consumer preferences. We hypothesised that adolescent cool identities relate to consumption of the familiar, whereas adult cool identities relate to for horizon-expanding experiences. The expansion of horizon is specifically narrated by a participant as:

> "If you are talking about high school, the cooler individuals would hang together, and there would be individual cool kids who lift up the group, but when you come to university, you'd have mixed groups of friends." [Group 2]

Another participant echoed similar perspectives about expansion of horizon during the transition from adolescence to adulthood:

> "In high school you want to impress your peers. But when you are at university, you want to impress others - your parents, your boss, and you want to impress yourself. You strive to be the best person you can be academically, financially, but in high school you are just seeking approval of your peers." [Group 6]

The analysis helps identify that parallels can be drawn between the participants' narratives of adolescent and adult cool identities with the preferences of LCC and HCC consumers in three dimensions: materialism versus idealism, communal identity versus individuality, and focus on the familiar versus expanded horizon. The similarities of perceptions of adolescent cool identities with LCC consumers, and of adult cool identity perceptions with HCC consumers are almost impossible to miss. This supports our position that from a cool cultural capital perspective, consumers holding adolescent cool identities are LCC consumers, and the consumers holding adult cool identities are HCC consumers. A resource-based view of adolescent and adult stages of life help explain and support this position. We propose that adolescents are in the process of gaining knowledge and skills that form the basis of cultural capital, and in most cases possess low levels of economic and social capital that may be converted to cool cultural capital. Adolescent consumers are, therefore, LCC consumers. On the other hand, in the process of transitioning from adolescence to adulthood consumers' cultural capital increases.

Consumers may invest in multiple cool identity projects at a time

Investment in multiple identity projects are common in consumers based on social, professional, and family roles. We believe a consumer may similarly invest in multiple cool identity projects across different groups. As status in a group is negotiated based on cool cultural capital among the members of a group, a consumer may encounter in a change of status unless they invest in such multiple cool identity projects across groups. Our data indicates that such status is relative compared to the cultural capital based status of other members in a group. One of the participants in a focus group discussion provided the following perspective, and other participants of that group discussion tended to agree to the statement:

> "I might be cooler in one group of friends, and in another group I might be with people who all know a lot about music." [Group 2]

Relationship between cool cultural capital and economic capital

According to Bourdieu (1986) the different forms of capital: cultural capital, economic capital, and social capital, are interchangeable or convertible from one form to another. This implies that consumers may forego portion of their cultural capital to acquire economic or social capital. Narrative provided by one of our participants in relation to Kylie Jenner indicates that by foregoing cool cultural capital it is possible to acquire economic capital. However, the 'exchange rate' of such conversion can be debated. Association of authenticity of cool may be quite strong (Belk et al., 2010; Bird and Tapp, 2008; Maher, 2005; Nairn et al., 2008; Nancarrow et al., 2002; Saxton, 2005; Southgate, 2003b; Sundar et al., 2014; Warren and Campbell, 2014). Hence any amount of conversion of cool cultural capital to economic capital may be viewed as 'selling out' and discard all or most of cool cultural capital. Again, Bourdieu's (1986) view of interchangeability or convertibility of different forms of capital suggests that acquiring cultural capital is possible by foregoing economic capital. This appears logical as paying tuition to acquire violin skills can be an example of such conversion. One of our participant identified that purchasing "new things", and acquiring exclusive and hard-to-find objects (such as a dress worth $10,000 or 'clothes with Aztec prints') can project a cool identity.

4.2.6 Discussion

In extant literature cool identities have primarily been explored from adolescent perspectives. Studies that explored cool identities from more inclusive age groups tended to identify juxtaposed perspectives. For example, cool identities were identified as both conforming to group norms and expressing uniqueness, simultaneously. This led some researchers to hold the view that these perceptions indicate an innate tension within cool identities which the identities are able to balance, consequently making them desirable and sought after (Belk et al., 2010; Gurrieri, 2009; Mohiuddin et al., 2016). In light of our analysis, these tensions can be explained through gradual changes in the cultural capital available to consumers at different life stages. The analysis showed that younger consumers have relatively lower cool cultural capital, making them more susceptible to communal expressions whereas older consumers holding relatively higher cultural capital preferred individualised or unique expressions. Similarly, material or physical display of adult behaviour may influence adolescent consumers in drinking and smoking, whereas a preference towards pro-social beliefs and values are evident in adult consumers. This paper thus clarifies the apparent paradox in explaining cool identities by examining changes in cool identities of consumers as they transition from adolescence to adulthood, and providing new insights by taking a cultural capital perspective. Therefore, the paper significantly contributes to the extant knowledge-base by not only applying cultural capital theory in a novel manner, but providing a clear understanding of consumers' cool identities.

4.2.7 Limitations and future research

The study has a few limitations. A limitation of the study is the use of focus group discussions to understand a socially constructed concept, when the participants themselves may have been trying to appear cool in the presence of others. The researchers adopted this method after trialling a few in-depth interviews, which were found to counter the objective of understanding market perceptions. The trial depth interviews revealed that an abstract social construct such as cool needed to be discussed in a group to some extent prior to eliciting relevant responses. This discussion and interactions within group members will possibly influence participants' responses, but is likely to elicit somewhat detailed narratives. Future studies to understand such concepts may use follow-up depth interviews of individual participants after conducting focus groups to overcome this limitation. This will also likely provide more in-depth understanding of cool ideology while avoiding influencing participants. Another major methodological limitation was the use of retrospective data to differentiate adolescent cool constructions from mature cool constructions. An alternative would be to interview adolescents and adult participants within similar time frame to compare the narratives. However, the researchers focused on young adults and avoided minors who may feel pressure in focus groups. Arranging counselling for minors during participation may help overcome this limitation.

4.2.8 Conclusion

This study empirically identifies the dimensions of cool that are relevant in identity construction projects of consumers. Furthermore, the study contributes to the understanding of cool by helping explain some contradictory associations of cool that heretofore confused researchers. Using the cultural capital theory, the study demonstrated that the contradictory positions can be explained through different levels of cultural capital that consumers possess at different life-stages. It also indicated the need to explore cool for specific segments in the market. While Mohiuddin et al. (2016) previously indicated the need to explore cool separately for different subcultures, this paper clearly demonstrates that segment-specific differences may not be captured if cool is not explored for specific segments. The understanding gained in this paper has significant implications for marketing practitioners. The study identifies the need to devise separate marketing strategies based on life-stages to appeal to consumers who try to construct cool identities. The understanding suggests that while endorsement of brands and products through celebrities and cool groups in the marketing of brands may be able to influence adolescent consumers in acquiring the brands, they are unlikely to influence adult consumers trying to project a cool identity. The study identifies that designing products that enable individualised customisation may appeal to more mature consumers of cool. It further identifies the need to incorporate ideals and abstract values relevant to adult cool consumers to influence such consumers. The paper indicates that incorporating novel experiences may allow marketers to attract adult consumers towards cool brands.

4.3 Chapter summary

The chapter presents the findings that resulted from analysing the data from the consumer group discussions. The findings explain how consumer perceptions of cool identities evolve as they transition from adolescence to adulthood. As stated in Chapter 2, in addition to these exploring cool, the qualitative interviews in Study 2 also generated items to develop initial scale of brand cool. The findings from the study in relation to scale development is discussed in the next chapter.

CHAPTER 5: A SCALE TO MEASURE BRAND COOL

5.1 Chapter Introduction

The conceptual framework of cool identified in Study 1 provided a holistic understanding of cool that can be extended in different contexts. Study 2 helped identify probable items to develop an initial scale through a qualitative interview study. In Chapter 5 the understanding is extended to the context of brands to conceptualise brand cool, and develop and empirically test a model and a scale to measure brand cool in Study 3. A series of surveys and the analysis of the data from the surveys in multiple stages helped: develop and refine a brand cool scale, assess the validity and reliability of the scale, and develop and test a model of cool in the context of brands. This chapter presents the findings in the third paper that resulted from this thesis project: **Measuring brand cool: Conceptualisation, scale development and validation**. Notably, this paper has been submitted to the *Journal of the Academy of Marketing Science* for review.

5.2 Paper 3: Measuring brand cool: conceptualisation, scale development and validation

5.2.1 Abstract

Marketing research and practice identifies the importance of embedding cool in brands to appeal to consumers. Yet, there is a lack of clear conceptualisation of brand cool. Furthermore, scales to assess whether a brand is cool are currently lacking. To address these gaps in knowledge, this paper presents a scale development research project to conceptualise and measure brand cool. The project involved five sequential studies: (1) item generation and content validation, (2) dimensionality assessment and scale purification, (3) model validation, (4) convergent, discriminant, and concurrent validity assessment, and (5) test-retest reliability assessment. The research findings propose an 18-item scale to measure brand cool across four different dimensions: dynamism, composure, subversion, and confidence. The research helps clearly define and explicate what the concept of cool in a brand context means. Furthermore, the 18-item scale will assist managers in evaluating the coolness of brands and developing strategies to embed cool in brands.

Key words: cool, concept explication, scale development, brand personality.

5.2.2 Introduction

The importance of the concept of cool for marketing has long been discussed, and marketing managers invest considerable effort in embedding cool in the marketing of brands to appeal to consumers (Allison, 2009; Ferguson, 2011; Warren and Campbell, 2014). Research on cool in marketing has explored the consumption of cool (Belk et al., 2010; Nancarrow et al., 2002), implications of cool for marketing (Bird and Tapp, 2008; Olson et al., 2005), and methods of embedding cool in brands (Gurrieri, 2009; Southgate, 2003b). Various scholars have also proposed general conceptual frameworks of cool (Mohiuddin et al., 2016; O'Donnell and Wardlow, 2000), and conceptual models to explain specifically the cool of products (Bruun et al., 2016; Sundar et al., 2014). Although embedding cool in brands is believed to have positive effects on consumer responses such as brand preferences and brand loyalty, there remains a lack of clear explication of what cool is, and how it can be understood and measured in a brand context (Im et al., 2015; Southgate, 2003b).

The paucity of research to develop models in relation to brand cool creates a gap in the understanding of cool within the marketing literature. Review of the relevant literature identify only two studies that attempt to explicate and measure cool in a brand context. A study by Loureiro and Lopes (2011) proposes a 42-item scale to measure the cool of brands through ten dimensions (contemporary, remarkable experience, sub-group, emotional relation, preciousness, singularity, unconventional, social awareness, youthful, and vintage). Loureiro and Lopes (2011) do not report the validity and reliability of this measurement model, and no subsequent work determine the psychometric properties of the scale. The other study by Sriramachandramurthy (2009) explicates cool specifically in the context of technology brands, and identifies a model of cool consisting of five-dimensions (authenticity, uniqueness, innovation, excitement, and congruity). Sriramachandramurthy (2009) cautions against extending the model beyond technology brands. Furthermore, the study did not ascertain temporal stability or test-retest reliability of the measurement model. The marketing literature is thus lacking a valid and reliable empirical model of brand cool.

The gap in the literature inhibits marketing researchers from exploring the role and importance of different dimensions of cool in influencing consumer behaviour, and subsequently brand performance. Furthermore, it limits the ability to answer key theoretical questions such as whether cool is a discrete concept or is part of other widely investigated brand management concepts such as brand personality. To address the gaps in knowledge, this paper presents a scale development research to conceptualise and measure, brand cool. The paper contributes to marketing research by helping to conceptualise and explicate cool in a marketing context, and identify key dimensions of brand cool. Furthermore, it provides a rigorous and validated scale for marketing scholars to use in researching brand cool and how it influences consumer behaviour and brand outcomes. The research also contributes to practice by presenting an empirically validated conceptual model of cool that can help inform brand marketing strategies, and a rigorous and validated scale to measure brand cool can help evaluate the effectiveness of existing practices to embed cool in brands.

The remainder of this paper is structured as follows. First, we review the relevant literature in order to help define cool, explicate its key dimensions, and conceptualise brand cool. Next, we present the methods and results for each of the five studies included in the research: (1) a qualitative interview study involving consumers and experts to generate and select items to develop an initial scale to measure brand cool, (2) the first survey study and an expert judging process for dimensionality assessment and scale purification, (3) a second survey study to validate the identified model, (4) a third survey study to assess the convergent, discriminant, and concurrent validity, and (5) a fourth survey study to assess the test-retest reliability of the scale. Finally, theoretical and managerial implications of the research are discussed before offering future research directions and drawing conclusions.

5.2.3 Conceptual development

The term 'cool' is often used to describe individuals who respond dispassionately to situations where excitement is expected (Belk et al., 2010; Gurrieri, 2009; Rahman, 2013). However, cool individuals also demonstrate a rebellious and bold attitude (Bird and Tapp, 2008; Warren and Campbell, 2014). Due to this combination of a rebellious attitude with composure, cool individuals are seen as extraordinary. The combination is relevant to the origin of cool in Nigeria in the 1400s where it represented display of "grace under pressure" (Major, 1994, p. 16; Thompson, 1983). Although the common use and origin of the term are related to describing individuals, it has evolved over time to describe extraordinary objects, music, art, subcultures, and practically any identity. Consequently, researchers have studied cool as a personality trait, an attitude towards life, a cultural phenomenon, and in relation to product design. Befitting the contexts, cool has thus been researched across multiple disciplines including psychology, anthropology, marketing, engineering, and design (Dar-Nimrod et al., 2012; Mohiuddin et al., 2016). The widened use of the term has also resulted in making it an urban slang synonymous to "I like it" (Sundar et al., 2014; Warren and Campbell, 2014). In this paper, we focus on the meaning of cool when it is used to describe an identity (e.g., brands), rather than its use as a term of approval (e.g., "I like it"). Considering the origin of cool can thus be useful to gain a relevant understanding of its meaning. We next briefly discuss the history of cool, and then review its definitions from seminal literature, to identify its key dimensions and conceptualise cool.

5.2.3.1 The history of cool

A brief discussion of the history of cool is helpful in understanding its importance for brand marketing, and identifying the relevant meanings and associations of cool. We start at the origins of contemporary cool. Belk et al. (2010) assert that contemporary cool has its roots in Nigeria in the 1400s where “grace under pressure” was related to wisdom and confidence (Majo,r 1994, p. 16; Thompson, 1983). This understanding of cool was imported to America via the slave trade in the 1700s and the 1800s (Belk et al., 2010). Growing from these roots, cool started permeating the mainstream American culture in the early 1900s. Specifically, the African American jazz musicians of the 1920s and 1930s are credited for exposing mainstream Caucasian audiences to cool (Dinerstein, 1999). Within the African American community, these jazz musicians acted as symbols of empowerment, competence and confidence. On the other hand, the composed subversion of these musicians appealed to some mainstream American consumers, many of whom adopted the expressions of the musicians (Belk et al., 2010; Dinerstein, 1999).

From the 1940s to 1950s, cool expressions started appealing to an increasing number of consumer segments within the American society such as rock and roll fans, and motorcycle gangs, who viewed mainstream social norms to be oppressive. Then in the 1960s and 1970s, liberal movements such as the civil rights movement and the sexual revolution aligned with the rebellious nature of cool, and cool made its way to a larger audience through the ‘hippie’ culture (Frank, 1998). These events led cool to be associated with individuality, autonomy, fusionism, and social justice, and reinforced its associations with enlightenment, empowerment and rebellion. Realising the potential influence of cool on certain segments, marketers in the 1970s started using symbols from the African American subculture such as basketball accessories, rap music, and hip-hop music to market brands (Belk et al., 2010; Saxton, 2005). Cool thus became relevant to brand marketing and consequently in forming consumer perceptions about brands. As American brands entered international markets the cool symbols used in marketing these brands became globalised.

The marketing and globalisation of cool in the 1970s diluted its meaning, and associated it with consumerism and cosmopolitanism (Bookman, 2013; Frank, 1998). With the increasing adoption by mainstream consumers, the African American symbols used by marketers also lost their ability to deviate from mainstream norms and remain cool. From the 1980s

American marketers started searching different marginalised subcultures for new cool symbols. Subsequently, Hispanic American symbols such as Latin rap entered the marketing of cool brands (Gaskins, 2003; Oboler, 2005; Whylly, 2008). This reinforced the association of cool with ethnic subcultures and subversion. Some market research agencies identified that cool symbols gradually become mainstream and lose their ability to deviate from norms. These agencies utilised the understanding to develop the process of 'coolhunting' in the 1990s. Coolhunting focuses on monitoring consumer trends for early identification of cool trends and symbols by engaging with opinion leader and trendsetters (Fuller and Thygesen, 1997; Southgate, 2003b). The identified trends and symbols are then embedded in marketing brands to actively develop associations between cool trends and brands (Gurrieri, 2009). Due to the cycle of cool symbols gradually becoming uncool choolhunting became a continuous process, and a thriving industry.

In the 1990s, American entertainment media that targeted young consumers such as MTV reached global audiences. This informed and enabled these consumers to form individual opinions about the world, and affected the construction of their individual identities (Saxton, 2005; Sbarbaro et al., 2011). The subsequent emergence of the hipster subculture and its association with cool empowered these consumers in upholding individuality in an age of mass production. This reinforced the association of cool with individuality and rebelliousness. Then in the twenty-first century, cool started becoming associated with technological innovation. Innovative brands such as Apple became cool by breaking industry norms and rebelling against the traditional approaches of formerly dominant corporations (Belk et al., 2010). In addition, products resulting from the advancement of individually consumable and communication technology like Facebook and YouTube empowered consumers in portraying their thoughts and lifestyles to an audience (Heinonen, 2011; Livingstone, 2008). These products facilitated instant feedback on the cool expressions one portrayed to an audience (Fitton et al., 2012; Heinonen, 2011), leading to faster validation and updating of cool expressions. In the new millennium cool thus gained association with innovativeness, and further reinforced its association with individuality and self-expression.

Reviewing the history of cool helps identify some concepts associated with cool (e.g., composure, rebellion, autonomy, individuality, enlightenment, empowerment, social justice, fusionism, and innovation). The review also indicates that a clear understanding of cool is relevant to marketing and more specifically, influencing consumers through cool. A marketer may associate a brand with emerging cool trends, as is done through coolhunting-based marketing. Southgate (2003b) argues that such marketing of cool trends increases the pace with which consumers adopt these trends, resulting in rendering the trends as mainstream and uncool more quickly. The resources required to sustain coolhunting-based marketing can hence be ever increasing. Conversely, a marketer may choose to devise ways to associate a brand with the key concepts relevant to cool and influence consumers. How Apple's rebellion contributed to its cool image supports this approach. A clear understanding of cool and its associated concepts can thus help marketers in devising efficient ways to associate brands with cool. To identify the key associations of cool, we next discuss definitions of cool from the extant literature.

Table 5.1

Context-specific definitions of cool in the relevant literature

Context	Definition	Study
Consumer culture	Commoditisation of the "youthful rebellious alternative to class-based status system".	Belk et al. (2010, p. 183)
Cultural capital (consumer culture)	"Insider knowledge about commodities and consumption practices yet unavailable to mainstream".	Nancarrow et al. (2002, p. 315)
Cultural objects (trait)	"A subjective and dynamic, socially constructed positive trait attributed to cultural objects (people, brands, products, trends, etc.) inferred to be appropriately autonomous."	Warren and Campbell (2014, p. 544)
Products (a set of design attributes)	Products that are not only "attractive and original, but also help the user assert his/her uniqueness or subcultural identity."	Sundar et al. (2014, p. 169)
Brands	"A gestalt brand image composed of" an amalgamation of "perceived qualities, particularly authenticity, uniqueness, innovativeness, excitement, and congruency with self-image."	Sriramachandramurthy (2009, p. 21)
Attitude (towards life)	"Concerned with practical reactions with one's situation" through a "life of reason", a "holistic approach to life", valuing "importance of friendship", and an "emphasis on the practical wisdom".	Southgate (2003b, pp. 458-459)
Personality (trait)	Combination of "two conceptually coherent and distinct personality orientations: one outward focused and attuned to external valuations, the other more independent, rebellious, and countercultural".	Dar-Nimrod et al. (2012, p. 175)
Concept (socially constructed)	"Attractive but evasive and subversive self-expressions to deviate from norms that signify maturity, and are justified by pro-social benefits" (of the deviations).	Mohiuddin et al. (2016, p. 140)

5.2.3.2 Definitions and associations of cool

Researchers propose several context-specific definitions of cool that can be relevant in marketing. We present key definitions from the seminal literature on cool in Table 5.1. These include definitions of cool constructed through interpretive studies (e.g., in the contexts of consumer culture or attitude formation), as well as attribute-based definitions formulated through quantitative studies in relevant contexts (e.g., in the context of products or personality). While these definitions are context-specific, several recurring themes can be noticed across some of the definitions. For example, deviation from norms is a recurring theme across several of these definitions, expressed through terms such as countercultural, dynamic, unique, and unavailable to mainstream. Reviewing these definitions, the relevant literature, and reflecting on the history of cool help identify the key associations of cool as: rebellion, continuous deviation from norms, a kind of attractiveness, unexpected composure, and expression of one's unique identity.

Cool as rebellion

The history of cool indicates the rebellious aspect of cool in relation to the composed expressions of subversion in the jazz musicians in the 1920s. We find further evidence of the association of cool with rebellion against mainstream norms and authority figures in the tendencies of rock and roll fans and motorcycle gangs in the 1940s, and the civil rights activists of the 1960s and 1970s. The history also indicates that the rebellious aspect may have been instrumental in establishing brands such as Apple and Harley Davidson as cool. Even when we review the definitions of cool, rebellion emerges as a key dimension of cool. Rebellion appears to retain its relevance to cool across different contexts, even though sometimes more context-specific terms have been used. While some researchers have discussed the rebellious aspect of cool using terms such as counterculturalism and separatist subculture (Dar-Nimrod et al., 2012; Gurrieri, 2009; Sundar et al., 2014), others have identified it specifically as rebellion or subversion (Bird and Tapp, 2008; Bruun et al., 2016; Kirkland and Jackson, 2009; Mohiuddin et al., 2016; Warren and Campbell, 2014). Highlighting this rebellious aspect of cool, Belk et al. (2010) defined it as the commoditisation of rebellion against the mainstream consumptions that result from class based status systems. Insider knowledge of this commoditisation, according to Nancarrow et al. (2002), forms the cultural capital for groups of cool consumers.

Cool as continuous deviation from norms

Cool expressions or symbols are continuously changed by cool consumer groups in an effort to deviate from norms (Gurrieri, 2009; Mohiuddin et al., 2016). These expressions and symbols are desired by consumers (Sundar et al., 2014; Warren and Campbell, 2014), and subsequently often adopted by mainstream consumers. In the process of wider adoption, a cool symbol loses its exclusivity and the potential to express rebellion. Therefore, symbols that cool individuals and subcultures use to express themselves need to continually change to remain cool. Consumer groups that are considered cool are creative and innovative in devising new ways to express their rebellion and changing cool symbols (Mohiuddin et al., 2016; Warren and Campbell, 2014). The history of cool helps understand this cycle of cool symbols gradually becoming uncool, and the relevant value coolhunting provides to marketers. By examining cool in different types of subcultural environments Warren and Campbell (2014) concluded that being cool in a counter-cultural group requires one to further deviate from norms of that group. Researchers sometimes refer to the continuous deviation from norms of cool identities as transience or dynamism (Bookman, 2013; Kirkland and Jackson, 2009; Maher, 2005; O'Donnell and Wardlow, 2000; Warren and Campbell, 2014). This dynamic aspect of cool is further reinforced through its association with innovativeness in the twenty-first century through brands such as Instagram and Flickr. While some researchers have argued that this transience of cool symbols poses difficulty in defining cool (Gurrieri, 2009; Mohiuddin et al., 2016; Nancarrow et al., 2002), very few have separated it from the rebellious aspect of cool to identify it as a key dimension.

Cool as a kind of attractiveness

Cool identities possess a positive valence, and are desirable (Warren and Campbell, 2014). Consequently, a wider audience mimics or tries to acquire the expressions and symbols related to cool identities (Belk et al., 2010; Sundar et al., 2010). Mohiuddin et al. (2016) explains that beyond the desirability of cool associated with its exclusivity, cool identities also possess some form of innate attractiveness. They separate the two using the terms 'desirability' and 'attractiveness', and explain that desirability is a consequence of cool whereas the innate attractiveness is not (Mohiuddin et al., 2016). Reviewing the literature identifies different forms of cool attractiveness depending on the context. In the context of individuals it is related to their confidence and grooming (Belk et al., 2010; Kirkland and Jackson, 2009; Warren and Campbell, 2014), and it is related to aesthetic qualities in the context of objects (Allison, 2009; Bookman, 2013; Rahman, 2013; Sundar et al., 2014).

Sundar et al. (2014) present attractiveness as one of the five dimensions of cool in their measurement model of technology product coolness. Some other researchers also consider cool to be strongly associated with attractiveness (Bookman, 2013; Ferguson, 2011; Loureiro and Lopes, 2011; Sundar et al., 2014).

Cool as unexpected composure

The Nigerian origin of cool from the 1400s is related to composure and wisdom when emotional responses are expected (Belk et al., 2010; Thompson, 1973). Southgate (2003b) takes a different perspective to relate cool to composure and wisdom by relating it to an individual's responses based on four Aristotelian values: a life of reason, a holistic approach to life, the importance of friendship, and an emphasis on practical wisdom. The composure demonstrated by cool individuals can be sometimes seen as the detachment from or the disguising of emotions (Belk et al., 2010; Nancarrow et al., 2002). This depicts cool identities as somewhat evasive of socially inappropriate emotions. However, according to Dar-Nimrod et al. (2012) the portrayal of a composed and appropriate appearance while being rebellious results in the positive external evaluation of cool identities. Composure has rarely been included in past conceptualisations of cool although the history of cool and its definitions from seminal literature indicate that composure is a key dimension of cool.

Cool as expression of one's unique identity

Cool is associated with unique self-expressions (Mohiuddin et al., 2016; Sriramachandramurthy, 2009; Sundar et al., 2014). Warren and Campbell (2014) suggest that such association is relevant when considering the rebellious nature of cool identities, and their deviation from norms. While some researchers propose that consumers use mixing and matching mass produced accessories to construct unique looks and appear cool (Mohiuddin et al., 2016; Saxton, 2005), others associate this dimension with expressions of authentic ethnic heritage (Belk et al., 2010; Maher, 2005; Nancarrow et al., 2002). The history of cool identifies that marketers from the 1960s to the 1980s sought and used unique symbols from minority ethnic subcultures to embed cool in brands, which may have created this association of cool with the portrayal of authentic ethnic heritage. More recently, the use of social media by consumers to portray individualised cool expressions may have reinforced this association of self-expression and cool.

Other possible conceptualisations of cool

Beyond the above conceptualisations of cool, researchers have also associated cool identities with social awareness (Loureiro and Lopes, 2011; Mohiuddin et al., 2016), and indicating maturity (Kirkland and Jackson, 2009; Mohiuddin et al., 2016; O'Donnell and Wardlow, 2000). By reviewing the history of cool and its definitions, we have thus identified several key associations of cool. The review suggests that these associations may be interrelated. We concur with Rahman (2013) in that the associations of cool can be numerous due to its relevance to practically any context. The seeming incompatibility amongst some of these associations, as well as their interrelations and conceptual overlaps, indicate that cool can be difficult to define.

To help define concepts that are abstract and difficult to define, marketing researchers use concept explication methods. Latent abstract concepts such as cool can be explicated and defined by specifying the domain in which it is examined (Chaffee, 1991; Churchill, 1979; Dar-Nimrod et al., 2012; Sundar et al., 2014). Therefore, we argue that it should be possible to explicate cool in a relevant domain by specifying the context and level of analysis, identifying what it entails and excludes, and separating from its antecedents and consequences (Chaffee, 1991; Churchill, 1979; Worthington and Whittaker, 2006). Explicating cool in the context of brands can be specifically relevant to marketing. The history of cool indicates that marketers embed cool trends to influence consumer perceptions of brands with an aim to elicit favourable consumer reponses towards the brands. Therefore, we examine cool in the context of brands in this research. Next, we further specify the domain of brand cool as we conceptualise it.

5.2.3.3 Brand cool

We conceptualise brand cool as consumer perceptions about the coolness of a brand, which is reflected upon the perceived attributes and meanings of the brand. This conceptualisation is consistent with the understanding that the cool of an identity is determined by an audience through their perceptions and evaluations of the identity (Belk et al., 2010; Gurrieri, 2009; Warren and Campbell, 2014). A brand management concept that is relevant to our conceptualisation of brand cool is the brand image, which is defined in the marketing literature as a set of associations linked to a brand in the memory of consumers (Aaker, 1991; Aaker, 1997; Dobni and Zinkhan, 1990). Different types of brand images are often identified using the brand personality model by Aaker (1997). The brand personality model consists of a set of human characteristics that consumers associate with different brands (Aaker, 1997; Freling et al., 2011; Geuens et al., 2009). We propose that brand cool cannot be specifically addressed by a generic model such as the brand personality model that applies to all types of brand images, and that brand cool is a distinct construct deserving independent conceptualisation and measurement due to its relevance and significance in marketing. However, due to the association of cool with rebellion and dynamism we expect brand cool to relate strongly to 'excitement' among the five dimensions of brand personality: competence, excitement, ruggedness, sincerity, and sophistication (Aaker, 1997).

We further distinguish brand cool from the concepts of brand affect and brand loyalty. These concepts are sometimes associated with cool from certain perspectives (Sriramachandramurthy, 2009; Warren and Campbell, 2014). Brand affect is defined in the marketing literature as the potential positive emotional response a brand may elicit from consumers (Chaudhuri and Holbrook, 2001; Sung and Kim, 2010), and brand loyalty is defined as the preferential response and commitment of consumers towards a brand (Bloemer and Kasper, 1995; Jacoby and Kyner, 1973). According to brand management literature, brand affect and loyalty are consequences of consumer perceptions about a brand (Greve, 2014; Matzler et al., 2006; Sung and Kim, 2010). Moreover, from a consumer behaviour point of view, consumer perceptions precede responses such as brand affect and brand loyalty for consumptions that have significant non-utilitarian value, such as the consumption of cool brands (Ajzen and Madden, 1986; Fishbein and Ajzen, 1975). Therefore, when brand cool is conceptualised as a specific type of perception resulting from a set of associations in relation to a brand, brand affect and brand loyalty are best explained as consequences of brand cool rather than as its synonyms. We specify the domain of brand cool by conceptualising it as consumer perceptions that relate to cool brands across product categories. Therefore, we expect brand cool to be reflected through a common set of associations. Although our review of the literature identifies several key associations of cool, in this research we adopt an exploratory approach to empirically determine which of those associations are relevant in the domain of brands. Based on our understanding of cool and its associations from the literature review, we expect brand cool to demonstrate multidimensionality.

5.2.4 Scale development

We adopted a scientific procedure from existing literature on concept explication and scale development (Chaffee, 1991; Churchill, 1979; DeVellis, 2016; Hair et al., 1998; Rossiter, 2002; Tabachnik and Fidell, 2007; Velicer et al., 2000) to ensure that: (1) all aspects possibly relevant to cool were included through the attributes considered, (2) only attributes relevant to the domain of brand cool were included, and (3) the developed scale possessed desired psychometric properties. The procedure comprised of five sequential studies. The studies are discussed in the following sections.

5.2.4.1 Study 1: Item generation and content validity

In study 1 we aimed to form an initial scale to measure brand cool by first identifying attributes of cool, and then by screening attributes based on their relevance to brand cool. Mohiuddin et al. (2016) presented a list of 57 attributes of cool after carrying out a systematic search and review of literature from across disciplines, conducting a document analysis, and eliminating redundant and synonymous terms. We adopted the attribute list provided by Mohiuddin et al. (2016), but complemented those attributes by conducting qualitative interviews with consumers, academics, and marketing managers (Churchill, 1979; DeVellis, 2016; Rossiter, 2002). We conducted 10 consumer focus group discussions involving 47 consumers as well as qualitative interviews with 12 experts. For the consumer focus groups, we utilised an Australian qualitative market research agency to recruit consumers who engage in cool activities and consumptions (Ferguson 2011; Nancarrow et al. 2002). Participant ages ranged from 18 to 32 years (*M*=23.40, *SD*=2.28), 51% of participants were female, and 23% had a Bachelor's degree or higher educational qualification. For the expert interviews we recruited six academics and six managers through our personal networks and snowballing (DeVellis, 2016; Malhotra, 2007; Patton, 1990). Each academic possessed a PhD and was actively engaged in marketing research at an Australian university. Each manager had more than five years of experience in brand management and/or advertising. The consumer focus groups and expert interviews both involved participants (consumer/ academic/ manager) completing an association task and a free elicitation task for item generation (Freling et al., 2011; Hede et al., 2014; Rossiter, 2002). This involved each participant listing the attributes s/he associated with a cool brand of her/his choice in the association task, and listing the attributes s/he expected any cool brand to have in the free elicitation task. Participant responses were consolidated along with the attributes identified from the literature to produce a pool of 83 potential brand cool items.

The next step was to refine the initial pool of items through consultation with a separate panel of experts. This involved recruiting a panel of experts through our personal networks to screen the pool of items and ensure that only items reflecting the content domain were included in the initial brand cool scale (DeVellis, 2016; Rossiter, 2002). The expert panel consisted of four academics, four managers, and three consumers. We asked each expert to screen the 83 items to identify items that relate to cool brands across different product categories for retention, and also identify items that appear ambiguous or synonymous for exclusion (Churchill, 1979; DeVellis, 2016; Rossiter, 2002; Worthington and Whittaker 2006). After considering inputs from the expert panel we retained 36 items to form the initial brand cool scale. We followed a conservative criterion to include the most relevant items in the scale (Churchill, 1979; DeVellis, 2016; Rossiter, 2002), and an item was included if at least 10 of the 11 experts concurred on retaining it. The inter coder reliability for these 36 items was 94.01% according to the percentage of agreement method (Hughes and Garrett, 1990; Lombard et al., 2002).

5.2.4.2 Study 2: Dimensionality assessment and scale purification

Study 2 involved conducting an online consumer survey to assess the dimensionality of the 36-item scale and inform scale purification. The survey was administered via the survey platform Qualtrics and was designed to collect responses regarding randomly presented brands on the brand cool scale in a five-point Likert scale format (1=strongly agree, 5=strongly disagree). We identified five different product categories from study 1, and selected ten brands with varying levels of cool from those product categories to be used as stimuli. The coolest brands in selected product categories were identified from the Coolbrands® website (*Coolbrands*, 2018), and well-known other brands from the same categories were also included. Brands used in the survey were: Apple, Dell, Harley Davidson, Yamaha, Hendricks, Bundaberg, Aston Martin, Toyota, Beats by Dr Dre, and Sony. We collected data from 595 Australian consumers through a leading online consumer panel provider. The sample included responses from 518 consumers after removing missing data. Respondent ages ranged from 18 to 49 years (M=29.61, SD=6.33), 48% of respondents were female, and 53% held a Bachelor’s degree or higher educational qualification.

Exploratory Factor Analysis (EFA) was conducted using SPSS version 24 to determine the dimensionality and structure of a brand cool measurement model after considering the suitability of EFA for reflective models and its ability to produce unbiased loadings (DeVellis, 2016; Gorsuch, 1997). The first step in the EFA was to identify the number of different dimensions. There are several different approaches to determining the number of dimensions, with many studies relying on rules-of-thumb such as Eigenvalue > 1. However, in this paper, we utilised two quantitative tests: a Minimum Average Partial (MAP) test[1], and a Parallel Analysis[2] (PA), to inform the number of dimensions as these are more rigorous than relying solely on Eigenvalues (Costello and Osborne, 2005; Courtney and Gordon, 2013; Ledesma and Valero-Mora, 2007; O'connor, 2000; Velicer, 1976; Velicer et al., 2000). These two tests indicated four different dimensions. The EFA was thus conducted to identify a four-dimension model using principal axis factoring (PAF) and direct oblimin rotation. PAF was used considering its ability to accommodate non-normal data, and direct oblimin rotation (a common oblique rotation) was used to accommodate possible interrelations between dimensions (Costello and Osborne, 2005; DeVellis, 2016; Field, 2000). The model explained 58% of the common variance in data. For each of the extracted four dimensions and the overall scale, Cronbach's alpha estimates of internal consistency reliability (Churchill, 1979; DeVellis, 2016) exceeded the cut-off level (i.e. $\alpha \geq .7$) recommended by Nunnally and Bernstein (1994): $\alpha_{\text{Dimension1}} = .941$, $\alpha_{\text{Dimension2}} = .815$, $\alpha_{\text{Dimension3}} = .844$, $\alpha_{\text{Dimension4}} = .871$, and $\alpha_{\text{Scale}} = .954$. Correlations between pairs of dimensions ranged from .19 to .70, where dimension 1 and dimension 4 showed a correlation of .70.

Next we analysed items for scale purification using both statistical criteria (loadings of items, see Table A.1 of Appendix A), and an expert review process (DeVellis, 2016; Jackson et al., 2009). An item was considered for exclusion if: (1) it had a low loading i.e. a highest loading of <.4 across dimensions (Brown, 2014; Hair et al., 1998), or (2) it clearly cross-loaded on dimensions i.e. the difference between its two highest loadings was <.2 (Aquino and Reed II, 2002; Field, 2000). We then took the pattern matrix from the EFA and the items

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[1] MAP tests focus on systematic and unsystematic variances remaining in correlation matrices after increasing number of factors are extracted to determine the number of factors (O'connor, 2000; Velicer, 1976).

[2] The PA uses a Monte Carlo simulation technique to generate eigenvalues from uncorrelated variables and compares those against observed eigenvalues extracted from the correlation matrix to indicate the number of factors (Horn, 1965; O'connor, 2000; Zwick and Velicer, 1986).

considered for exclusion to a panel of five experts for review. Each expert had a PhD in marketing or consumer psychology, was familiar with psychometric analysis, was active in research at an Australian university, and had experience in consulting for marketing projects.

Table 5.2

EFA loadings for the purified 18-item brand cool scale

Items	Factor loadings			
	Dimension 1 (Dynamism)	Dimension 2 (Composure)	Dimension 3 (Subversion)	Dimension 4 (Confidence)
[BRAND X] is ahead of the game.	.817			
[BRAND X] sets trends.	.776			
[BRAND X] is innovative.	.730			
[BRAND X] is fresh.	.686			
[BRAND X] is extraordinary.	.607			
[BRAND X] is vibrant.	.526			
[BRAND X] is modest.		.724		
[BRAND X] is reserved.		.703		
[BRAND X] is low-profile.		.682		
[BRAND X] is under-stated.		.661		
[BRAND X] is hedonistic.			.622	
[BRAND X] is unconventional.			.552	
[BRAND X] is rebellious.			.549	
[BRAND X] is subversive.			.543	
[BRAND X] is proud.				.771
[BRAND X] is self-assured.				.745
[BRAND X] is passionate.				.616
[BRAND X] is direct.				.595

Note: EFA uses Principal Axis Factoring and Direct Oblimin rotation. *N* = 518.

Experts were individually asked to review which (if any) of the items we identified for exclusion should be retained, and whether groupings of items under each dimension were suitable to explain brand cool. To avoid excluding relevant items during purification, we retained an item if three of the five expert reviewers concurred. Based on the data analysis and inputs from the experts, we retained 18 items for the brand cool scale, and a four-dimension model. The inter-rater reliability for the retained items was 86.7% according to the percentage of agreement method (Hughes and Garrett, 1990; Lombard et al., 2002). Table 5.2 presents the loadings of the purified scale items. All purified items loaded on different dimensions with loadings ranging from .526 to .817. We then named the four dimensions. During the item review process, we asked experts to suggest names for the dimensions by considering the items grouped under each dimension. Following an iterative process in which the research team considered the experts' suggestions, consulted the extant literature on cool, and extensively discussed the naming of dimensions among the research team members, we finalised names of the four dimensions as: dynamism, composure, subversion, and confidence.

After finalising the names of the dimensions, we defined the four dimensions based on the items composition and the understanding from the literature. Initially definitions were formulated based on items compositions. Then we applied an iterative process of consulting the literature on cool, discussing among the research team members, and simultaneously refering to the item composition to finalise the definitions. In relation to dynamis, we found that all items refer to novelty. However, novelty is synonymous with innovation (Im et al., 2015), whereas setting trends, being seen as vibrant, and staying ahead of the game requires predicting responses to a novel offering. This distinction influenced how we defined dynamism. In relation to composure, the items understated and low-profile refer to a relatively passive position whereas being modest and reserved indicates a degree of active role. We tried to capture this aspect in defining composure. In relation to subversion, the items rebellious and subversive refer to taking a position against mainstream norms, whereas the term unconventional only refers to deviating from norms. The item hedonism further clarifies the psychological aspect of taking a position associated with subversion. This understanding informed our definition of subversion. In relation to confidence, the item pride can relate to a certain degree of arrogance which may be relevant to being passionate. This aspect may not be reflected if confidence is defined based on self-assurance and being direct. We incorporated this understanding in defining confidence. The relevant scale items and the definitions of the four dimensions are presented in Table 5.3.

Table 5.3

Defining the dimensions of brand cool.

Dimension	*Definition*	*Items*
Dynamism	The extent to which consumers perceive a brand to frequently offer novel trend-setting perspectives.	Ahead of the game, sets trends, innovative, fresh, extraordinary, vibrant
Composure	The extent to which a brand is perceived to avoid highlighting itself in the media.	Modest, reserved, low-profile, under-stated
Subversion	The extent to which a brand is perceived to position itself against mainstream norms.	Hedonistic, unconventional, rebellious, subversive
Confidence	The extent to which a brand is perceived to take a clear stand about its position.	Proud, self-assured, passionate, direct

5.2.4.3 Study 3: Model validation

Study 3 involved validating the brand cool measurement model identified in study 2 (and shown in Figure 1) using confirmatory factor analysis (CFA; Churchill, 1979; DeVellis, 2016; Hair et al., 1998; Tabachnik and Fidell, 2007). This involved administering the 18-item survey online to a sample of 662 Australian consumers recruited through the online consumer panel provider used in study 2. The sample included responses from 495 consumers after removing missing data. Respondent ages ranged from 18 to 40 years (*M*=28.99, *SD*=6.16), 53% of respondents were female, and 42% held a Bachelor's degree or higher educational qualification. The CFA was then conducted using AMOS version 24 to assess how well the model fit the data. We utilised the maximum likelihood method when estimating the model (Brown 2014; Jackson et al. 2009). The highest loading item for a dimension from study 2 EFA was used as the marker variable for the dimensions in specifying the model for CFA (Brown 2014).

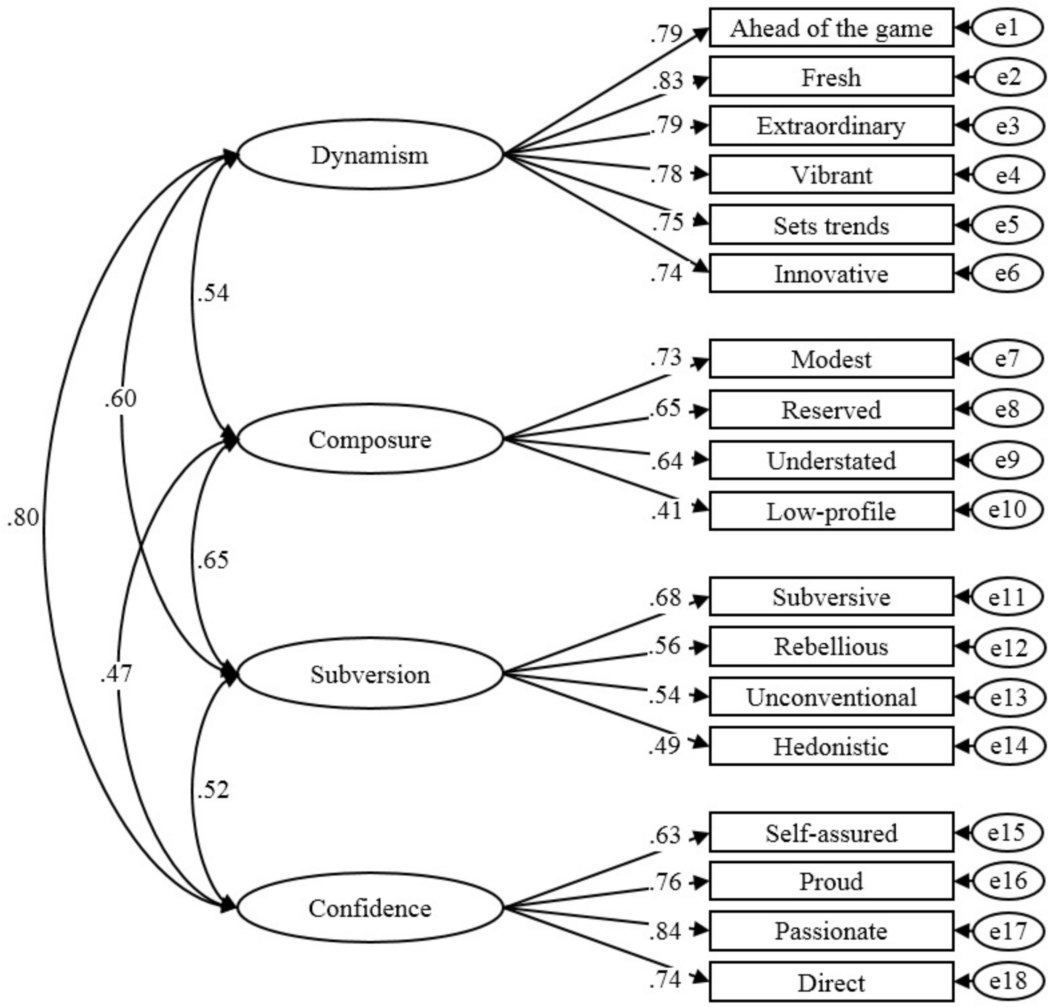

Figure 5.1: Standardised estimates from CFA for the brand cool measurement model

We then inspected the model fit indices and item loadings to assess the validity of the four-dimension brand cool model. The Chi-square value ($\chi^2(129)$ =306.54, *p*<.001) was significant, which indicates a difference between the observed and expected covariance matrices. It is important to note that chi-square is not an ideal indicator of model fit, and it is less reliable with larger sample sizes where it is commonly significant. Therefore, we next examined the other fit indices in the CFA, all of which indicated a good model fit. The standardised root mean square residual (SRMR=.063), root mean square error of approximation (RMSEA=.053), comparative fit index (CFI=.952), adjusted goodness of fit index (AGFI=.915), and incremental fit index (IFI=.953) all indicated a good fit according to conservative thresholds[3] (Baumgartner and Homburg 1996; Brown 2014; Browne and Cudeck 1992; Hu and Bentler 1999; Schreiber et al. 2006). The composite reliability for the dimensions exceeded or approached .70 ($CR_{Dynamism}$=.903, $CR_{Composure}$=.703, $CR_{Subversion}$=.657, $CR_{Confidence}$=.832). Figure 5.1 presents the standardised estimates from CFA for the four-dimension model of brand cool. The standardised loading for items were all significant (*p*<.01), ranged between .41 and .84 and met the ≥.4 threshold (Brown, 2014; Hair et al., 1998; Hu and Bentler, 1999; Jarvis MacKenzie and Podsakoff, 2003; Tabachnik and Fidell, 2007). All loadings were greater than twice their standard error, which indicates convergent validity according to Anderson and Gerbing's (1988) approach. Furthermore, correlations between pairs of dimensions ranged from .47 to .80, which also supports convergent validity.

5.2.4.4 Study 4: Convergent, discriminant, and concurrent validity

Next, following recommendations for scale development (Churchill, 1979; DeVellis, 2016; Hair et al., 1998) we tested the convergent validity of the new brand cool scale. To achieve this, we tested the relationship of brand cool with product coolness as measured using the scale by Sundar et al. (2014). According to our conceptualisation, brand cool and product coolness were expected to converge somewhat. Next, we tested for discriminant validity (Bagby et al., 1994; Churchill, 1979; DeVellis, 2016; Schumm et al., 1986) using the brand personality scale by Aaker (1997) as we conceptualised brand cool as distinct from brand

[3] Considered thresholds: SRMR≤.08, RMSEA≤.06, CFI≥.95, AGFI>.90, IFI>.95 (Baumgartner and Homburg, 1996; Brown, 2014; Browne and Cudeck, 1992; Hu and Bentler, 1999; Schreiber, Nora, Stage, Barlow, and King, 2006).

personality. To test for concurrent validity (Bagby et al., 1994; DeVellis, 2016; Schumm et al., 1986), we tested the relationship of brand cool with brand equity using the consumer-based brand equity (CBBE) scale by Yoo and Donthu (2001). To assess these relationships, we collected data through a third online survey. The survey included the purified brand cool scale, the product coolness scale by Sundar et al. (2014), the brand personality scale by Aaker (1997), and the CBBE scale by Yoo and Donthu (2001).

The survey required a consumer to rate a randomly presented brand on all four scales. The scales were presented to respondents in random order. We collected data from 660 Australian consumers through the online consumer panel provider previously used. The sample included responses from 615 consumers after removing missing data. Respondent ages ranged from 18 to 50 years (*M*=29.69, *SD*=6.37), 51% of respondents were female, and 46% held a Bachelor's degree or higher educational qualification. From the data we calculated cumulative scores for each relevant scale and its dimensions. The relationships between brand cool and each of the relevant dimensions were assessed via Pearson correlations (Bagby et al. 1994; DeVellis 2016; Hertzog et al. 1989; Russell et al. 1980; Schumm et al. 1986; Stöber 2001).

Table 5.4

Correlations between brand cool and relevant concepts and dimensions

Concepts/dimensions		Brand cool (BC)				
		Dynamism	Composure	Subversion	Confidence	BC score
Product Coolness (PC)	Subculture	.65*	.32*	.44*	.55*	.66*
	Attractiveness	.75*	.24*	.41*	.63*	.69*
	Originality	.76*	.26*	.42*	.65*	.71*
	PC score	.77*	.30*	.45*	.35*	.73*
Consumer-based brand equity	Brand awareness (BA)	.39*	.02	.03	.44*	.29*
	Brand loyalty (BL)	.62*	.40*	.41*	.43*	.63*
	CBBE score	.70*	.28*	.32*	.61*	.65*
Brand personality	Sincerity	.64*	.43*	.36*	.58*	.67*
	Excitement	.76*	.20*	.39*	.67*	.69*
	Competence	.70*	.27*	.32*	.66*	.66*
	Sophistication	.65*	.32*	.44*	.55*	.66*
	Ruggedness	.54*	.29*	.46*	.49*	.59*

* indicates $p<.01$, $N = 615$.

The correlations between pairs of concepts and dimensions are presented in Table 5.4. We found that brand cool (BCool) demonstrates a strong positive correlation with product coolness (PC). Conceptually, the image of a brand incorporates consumer perceptions regarding products offered by the brand (Dobni and Zinkhan, 1990; Nandan, 2005). As both brand cool and product coolness address cool albeit in different contexts, they are expected to converge on the concept of cool. Therefore, the strong positive correlation between the measures ($r_{BCool,PC}$=.73, p<.01) supports the convergent validity of the brand cool scale (Churchill, 1979; DeVellis, 2016). The convergent validity is further supported by three findings from study 3. First, the loading for each item was significant and greater than twice its standard error (Gerbing and Anderson, 1988); second, the composite reliability for each dimension was satisfactory (Fornell and Larcker, 1981); and third, the correlations between pairs of dimensions were moderate and significant.

We inspected the correlations between the dimensions of brand cool and brand personality (see Table 5.4) to assess whether brand cool empirically emerges as distinct from brand personality (Churchill, 1979; DeVellis, 2016; Vandecasteele and Geuens, 2010). The dynamism dimension of brand cool showed a strong positive correlation with two brand personality dimensions: excitement and competence. However, the other dimensions of brand cool did not show correlations >.67 to suggest conceptual overlap (DeVellis, 2016; Hair et al., 1998). This indicates that the dimensions of brand cool, except for dynamism, cannot be appropriately captured by the dimensions of brand personality. Therefore, the findings indicate that brand cool is a specific and distinct type of brand personality, and support the need for a separate scale to measure brand cool, distinct from the brand personality scale.

We observed a positive correlation between brand cool and consumer-based brand equity (CBBE, $r_{BCool,CBBE}$=.65, p<.01). This supports the concurrent validity of the scale. Embedding cool trends in the marketing of a brand is expected to enhance the perceived value of the brand (Gurrieri, 2009; Southgate, 2003a), and researchers use brand equity to measure the additional perceived value of a brand (Keller, 1993; Yoo and Donthu, 2001; Yoo et al., 2000). Therefore, the observed correlation indicates that brand cool can concurrently predict brand equity. We then inspected correlations between brand cool and the two key dimensions of brand equity: brand loyalty, and brand awareness (Aaker, 1991; Keller, 1993; Yoo and Donthu, 2001). Brand loyalty (BL) demonstrated a positive correlation ($r_{BCool,BL}$=.63, p<.01), but brand awareness (BA) demonstrated no meaningful correlation ($r_{BCool,BA}$=.29, p<.01) with brand cool. Brand awareness is related to the how well a brand is known in a market (Aaker, 1991, 1996; Keller, 1993), but cool groups try to be evasive about and protect the insider knowledge of cool symbols and brands (Mohiuddin et al., 2016; Nancarrow et al., 2002). Therefore, the evasiveness of cool groups regarding cool may explain the observed relationship of brand cool with brand awareness.

Table 5.5

Correlations for assessing test-retest reliability

		Phase 1				
		Dynamism	Composure	Subversion	Confidence	Brand cool score
Phase 2	Dynamism	.70**	.16*	.14*	.41*	.56**
	Composure	.15*	.74**	.33**	.07	.44**
	Subversion	.13	.35**	.68**	.01	.41**
	Confidence	.45**	.11	.01	.74**	.48**
	Brand cool score	.55**	.45**	.40**	.42**	.67**

Note: ** represents p<.01, * represents p<.05, N = 223.

5.2.4.5 Study 5: Test-retest reliability

Study 5 involved collecting data through two online consumer surveys administered with an interval of four weeks to assess the test-retest reliability of the brand cool scale (DeVellis, 2016; Freling et al., 2011; Geuens et al., 2009). Each respondent rated a randomly presented brand on the brand cool scale in the first phase, and in the next phase rated that same brand on the scale. The online consumer panel provider previously used provided respondent for the surveys. We collected responses from 300 Australian consumers in the first phase; once missing data were removed, the sample size was 252. These 252 respondents were invited to retake the survey after four weeks, and 223 of them responded in the second phase. We compared the data for the two phases from these 223 respondents for assessing the test-retest reliability. Respondent ages ranged from 18 to 50 years (M=30.81, SD=6.45), 51% of respondents were female, and 22% held a Bachelor's degree or higher educational qualification. We then calculated scores for the brand cool scale and its dimensions, and computed correlations between the phases 1 and 2 scores to assess the test-retest reliability (DeVellis, 2016; Freling et al., 2011; Geuens et al., 2009). Table 5.5 presents the correlations between the two phases. Brand cool (BCool) scores for the two phases correlated positively ($r_{BCool\text{-}1,2}$=.67, p<.01), and we observed similar positive correlations for the brand cool dimensions ($r_{Dynamism1,2}$=.70, $r_{Composure1,2}$=.74, $r_{Subversion1,2}$=.68, $r_{Confidence1,2}$=.74, p<.01). The findings thus indicated that the brand cool scale scores were fairly stable over the four-week period.

5.2.5 Discussion

We rigorously followed the established scientific methods of concept explication and scale development to explicate cool in the context of brands, and to empirically validate the conceptualisation of brand cool through a valid and reliable measurement model. The explication of and the valid and reliable measurement model of brand cool in this research contributes theoretically to the marketing knowledge-base in several ways. They also have significant practical implications.

5.2.5.1 Theoretical contributions

Conceptualisation and empirical model of brand cool

The marketing literature was heretofore devoid of a clear conceptualisation of cool in a brand context. This study addresses this void and contributes to knowledge by conceptualising brand cool and providing an empirical model of the concept as featuring four dimensions: dynamism, composure, subversion, and confidence. The conceptualisation and the empirical model in this research will allow marketers to understand what constitutes cool, and how marketing activities may relate to forming consumer perceptions across the four dimensions.

Dynamism in relation to brand cool is defined in this paper as the extent to which consumers perceive a brand to frequently offer trend-setting novel perspectives. This relates to the understanding that cool identities continuously deviate from norms, change expressions and adopt new ones to stand out from the crowd (Gurrieri, 2009; Nancarrow et al., 2002; Sundar et al., 2014). Dynamism allows cool identities to be perceived as fresh, innovative, ahead of the game, extraordinary, setting trends, and transient (Im et al., 2015; Nairn et al., 2008; Nancarrow et al., 2002; Rahman, 2013; Southgate, 2003b). Continuously offering trend-setting novel features in products help technology brands to enhance their brand cool (Im et al., 2015; Sriramachandramurthy, 2009; Warren and Campbell, 2014). Updating elements of brand identity such as the logo, the packaging, and the audio identity may also positively affect perceived dynamism of a brand, and consequently its cool. This perspective somewhat aligns with the concept of 'rebranding' in the brand marketing literature. Notably, rebranding refers to changing brand identity to "contemporise" a brand's image (Kaikati and Kaikati, 2003, p.17; Kapferer, 1994; Keller, 1993). This research for the first time empirically validates dynamism as one of the key dimensions of cool in a relevant context. An understanding of cool dynamism may help in understanding cool in other contexts. We propose that the transient nature of cool subcultures and identities may be an integral part of their cool, and should not only be seen as resulting only from the marketing of cool trends.

Composure in relation to brand cool is defind here as the extent to which a brand is perceived to avoid highlighting itself in the media. This dimension may seem contradictory to brand marketing theories that often profess that the presence of a brand in media and its marketing success are positively correlated (Aaker, 1991; Kapferer, 1994; Keller, 1993). However, the understanding of composure in relation to brand cool aligns with the perspective of some researchers, who recommend avoiding high-visibility mainstream media in order to enhance the cool of brands (de Chenecey, 2003; Fuller and Thygesen, 1997; Mohiuddin et al., 2016). Cool groups often try to protect the insider knowledge of the symbols and brands they use by maintaining a low profile (Belk et al., 2010; Mohiuddin et al., 2016; Nancarrow et al., 2002). Avoiding mainstream media may ensure that the symbols and brands of the cool groups do not quickly become mainstream and uncool. From a consumer culture perspective, this can help these groups in protecting the cultural capital that forms the basis of the groups' superior cool status relative to other groups (Belk et al., 2010; Nancarrow et al., 2002). Therefore, we propose that by avoiding highlighting itself in the media a brand can influence consumer perception of its composure, and consequently its cool. Empirically identifying composure as a key dimension of cool is a significant contribution in theories related to cool across contexts as it has never been considered an important dimension of cool. In the absence of a clear understanding of this dimension, cool subcultures and identities have often been described as evasive and separatist by researchers (Bird and Tapp, 2008; Gurrieri, 2009; Mohiuddin et al., 2016). The identification of the composure dimension in relation to brand cool therefore helps better understand cool in general.

Subversion in relation to brand cool is defined as the extent to which a brand is perceived to position itself against mainstream norms. It relates to the rebellious tendency of cool identities to meaningfully break mainstream rules (Bird and Tapp, 2008; Mohiuddin et al., 2016; Warren and Campbell, 2014). We found unanimous support in the seminal literature regarding cool's association with rebellion and deviation from conventional norms. While Mohiuddin et al. (2016) and Warren and Campbell (2014) indicate that this rebellion of cool is backed by pro-social causes, several researchers such as Nancarrow et al. (2002) and Bird and Tapp (2008) suggest it is hedonistic. Product designs and marketing communications from a brand must deviate from industry norms to be perceived as cool (de Chenecey, 2003; Fuller and Thygesen, 1997; Warren and Campbell, 2014). For example, positioning itself against the computer industry norms helped Apple to successfully improve its brand cool (Belk et al., 2010; Warren and Campbell, 2014). Therefore, a brand may influence consumer perceptions of its subversion, and consequently its cool, by positioning itself against mainstream norms that do not benefit its target market. We expected brand cool to include subversion as one of its dimension as the rebellious tendency of cool has been identified across different contexts in past empirical studies through terms such as irreverence, subversion, rebellion, autonomy, unconventional, and countercultural (Bird and Tapp, 2008; Nancarrow et al., 2002; Sriramachandramurthy, 2009; Sundar et al., 2014; Warren and Campbell, 2014).

Confidence in relation to brand cool is defined here as the consumer perceptions of the brand's ability to take a clear stand about its position. This confidence emerges visibly in cool identities as deviating from norms is commonly accompanied by social pressure, and cool identities do not shift from their position under such pressure (Kirkland and Jackson, 2009; Staff and Kreager, 2008). Hence a clear understanding of confidence in relation to cool can help explain why cool identities are often perceived as bold, and not holding back in their stylised self-expressions (Belk et al., 2010; Bookman, 2013; Nancarrow et al. 2002). The confidence of a brand may become significant and apparent when it demonstrates subversion against norms. Belk et al. (2010, p. 188) suggest that cool confidence emerges from a kind of "knowingness", and according to Thompson (1973) the concept of cool was associated with practical wisdom in Nigeria in the 1400s. Similarly, if a brand is perceived as capable of justifying its position, then the brand can consistently maintain its position and will not require shifting its position under pressure. Therefore, by being direct, passionate, self-assured, and proud about its position, a brand may enhance consumer perceptions of its confidence, and consequently its cool. Empirically identifying confidence as a key dimension of brand cool is a significant contribution towards theories related to cool identities as it has never been studied as an important dimension of cool.

Scale to measure brand cool

By presenting an empirically validated scale, this paper establishes brand cool as an empirically measurable concept. Although the extant marketing literature includes several conceptual models of cool (Gurrieri, 2009; Mohiuddin et al., 2016; O'Donnell and Wardlow, 2000) and empirical studies that identify key associations of cool (Belk et al., 2010; Nancarrow et al., 2002; Warren and Campbell, 2014), the literature was heretofore devoid of an empirically validated measurement model of brand cool. Therefore, the brand cool scale will enable researchers to conceptualise and design studies that empirically measure brand cool and examine its relationships with other relevant variables. Specifically, the understanding will enable researchers to theorise and examine the antecedents and consequences of brand cool.

5.2.5.2 Practical implications

Conceptualisation and empirical model of brand cool

This paper offers significant practical implications for marketing managers and researchers. The dimensions of cool identified through the explication of the concept will provide marketing managers with an enhanced understanding of what cool constitutes. This understanding can be useful to both coolhunters and brand managers when conducting market research to embed cool trends in brands, and to provide theoretical justification for identifying some trends as more cool, and some others as less cool. However, this may counter the perspective that identifying cool is exclusive to coolhunters, and beyond the understanding of managers who are not part of the young cool crowd (Gurrieri, 2009; Nancarrow et al., 2002; O'Donnell and Wardlow, 2000; Southgate, 2003b).

The brand cool model will assist brand managers and coolhunters by providing a framework for predicting which emerging trends may become cool in near future. The pace of cool trends becoming uncool has likely increased in recent years due to faster validation and diffusion of cool trends in the market with the increasing subscription of different social media (Felix et al., 2017; Fitton et al., 2012; Heinonen, 2011; Naylor et al., 2012). Therefore, by the time a cool trend is identified and embedded in the marketing of a brand using traditional coolhunting methods, a brand manager may find that a large number of consumers have already adopted the trend and rendered it less cool. This enhances the importance of any framework to predict cool trends rather than closely following trends that have already been identified as cool. Therefore, the brand cool model will be useful in a changing environment in relation to the consumption of cool.

The understanding of the dimensions of brand cool can help coolhunting agencies and brand managers in forumating the appropriate associations for a brand, and thereby inform them in devising brand marketing strategies, to enhance its cool. There may be some resistance around whether a structured strategic approach to enhancing the cool of a brand using a model can be more useful than proven methods such as coolhunting of associating it with cool trends (Gurrieri, 2009; Southgate, 2003b). The example of Apple as a brand is useful to overcome such resistance. Apple’s position against computer industry norms (cool subversion), and association with continuously offering trend-setting novelties (cool dynamism), rather than embedding cool trends in its marketing, helped it enhance its brand cool. Therefore, it is reasonable to believe that through appropriate strategies to associate with the dimension of brand cool, marketers may influence consumer perceptions of a brand’s cool.

There are various possible ways of creating the appropriate associations for specific brands where coolhunting agencies and advertising firms may assist brand managers, but here we indicate a few possibilities. A brand’s association with dynamism may be created by updating product features according to latest technological developments and changes in consumer needs before competitors. Furthermore, elements of a brand’s identity such as the logo, the packaging, and the audio identity may be periodically changed to create a dynamic image. To associate with composure, brand managers may choose to communicate through subtle messages, avoid mainstream media, and use alternative media to reach specifically targeted consumers. By communicating a brand’s position against one or more mainstream norms that do not benefit the brand’s consumers, a brand may create a subversive image. A brand’s association with confidence may be created by maintaining its position against non-beneficial mainstream norms over time, and also by subtly justifying the position.

Scale to measure brand cool

The parsimonious 18-item brand cool scale will assist managers to evaluate and measure outcomes of their efforts to embed cool in brands. For example, the scale can be used periodically to evaluate the brand cool of Sprite (a brand from the Coca-Cola Company) along with changes in marketing activities. Sprite has historically attempted to establish itself as a cool brand (Rushkoff and Goodman, 2001). Periodically assessing the brand cool of Sprite may assist managers to evaluate the effectiveness of its different marketing activities in enhancing the its cool. Using this scale brand managers at the Coca-Cola company may also be able to compare the brand cool of Sprite against those of competing brands such as 7-Up or Mountain Dew. Beyond its use for brand managers, the valid and reliable scale will serve as an instrument for researchers to empirically examine extant theories on cool. Specifically, using the scale researchers will be able to empirically test the relationship of cool with other variables of interest.

5.2.5.3 Limitations and future research

The research has some limitations which need to be considered. First, only a limited number of brands were included in the research which could impact the generalizability of the model. In our research, we selected 10 brands from a range of product categories: Apple and Dell (computers), Harley Davidson and Yamaha (motorcycles), Aston Martin and Toyota (automobiles), Beats by Dr Dre and Sony (music accessories), and Bundaberg and Hendricks (alcoholic beverages). These brands not only included different product categories, but also included brands with different levels of cool. The variance in the variable of interest (brand cool) is statistically important for obtaining meaningful outputs from factor analyses (DeVellis 2016). Furthermore, avoiding a wider range of lesser-known brands helped ensure that respondents had sufficient knowledge of the brands they evaluate, and the responses were valid. Allowing respondents to independently choose brands in the survey could affect these intended purposes. Therefore, we were selective about the brands included in the research. Future research may test the model for a larger sample of brands from across a wider range of product categories.

Second, the research did not consider the effects of different types of brand portfolios on the cool image of a brand (Kapferer, 1994; Keller, 1993; Nguyen et al., 2018). Although this was beyond the specified of scope of this research, we acknowledge that a consumer perception of a brand may be influenced by the consumer's knowledge of the brand portfolios to which it belongs. Future research may focus on examining the brand cool model for different types of brand portfolios (Kapferer, 1994; Keller, 1993; Nguyen et al., 2018) such as an umbrella brand portfolio (one brand used for all offerings of an organisation) or a sub-brands portfolio (different prefix or suffix with one main brand for different offerings). The research by Nguyen et al. (2018) on brand portfolio coherence can be useful in comparing brand cool for different types of brand portfolios. Another limitation of the research is its focus on Australian consumers. As Warren and Campbell (2014) and Mohiuddin et al. (2016) indicate that the perception of cool may vary across cultures, future research should examine the validity of the model across countries and cultures.

5.2.6 Conclusions

This research addresses an important gap in the marketing literature in relation to understanding cool by conceptualising and explicating it in the context of brands. We conceptualised cool by considering the history and different context-specific definitions of cool, and then explicated brand cool through rigorously following scientific methods of concept explication. The research resulted in an empirical model of brand cool consisting of four dimensions: dynamism, composure, subversion, and confidence. These dimensions help understand how consumer perception of cool brands are formed. The identification of these dimensions has significant theoretical implications as dynamism, composure, and confidence were heretofore never considered as key dimensions in relation to cool. The understanding from the empirical model will help managers in designing brand marketing activities to embed cool in brands specifically, given that managers are often considered unable to idnentify and comprehend cool due to being outsiders to young cool groups. We discussed a few possible ways to embed cool in brands in the practical implications section, which may be helpful to brand managers. In the paper we also presented an 18-item valid and reliable scale to measure brand cool. The scale will enable researchers to test existing and new hypotheses on brand cool, and brand managers to evaluate their efforts to embed cool in brands.

5.3 Chapter summary

This chapter presented the development and empirical testing of a model of cool in the context of brands, and a valid and reliable 18-item scale to measure brand cool. The model identified that four dimensions (dynamism, composure, subversion, and confidence) are relevant to cool in the context of brands. The chapter, by identifying the key associations of cool in the context of brands, and presenting an empirically tested model and a valid and reliable scale to measure brand cool, addresses some of the aims of the PhD thesis. When the findings from the three study presented in Chapters 3, 4, and 5 are taken together, they address all the aims of the thesis. The next chapter presents the theoretical, research, and practical implications of these findings, and by summarising the studies, concludes the thesis.

CHAPTER 6: DISCUSSIONS AND CONCLUSION

6.1 Chapter introduction

This thesis aimed to identify the key dimensions of cool to assist in conceptualising brand coolness, and to develop and validate a scale for measuring brand cool. The thesis addressed these aims and contributed to the marketing literature by presenting: (1) a conceptual framework of cool; (2) an empirically tested model of brand cool; and (3) a valid and reliable scale to measure brand cool. The present chapter focuses on the implications of the key findings from the thesis. First, the chapter sequentially summarises each of the key findings and alongside discusses its theoretical, research, and practical implications. Then the limitations of the research are outlined, and future research directions are discussed. Finally, the chapter ends by summarising the thesis and offering some concluding remarks.

6.2 Summary and implications of thesis findings

This thesis has a number of findings that have implications for marketing theory, research, and practice in relation to cool. The implications for each of the key findings are sequentially discussed as follows.

6.2.1 A general conceptualisation of cool

Till date the marketing literature has lacked a clear conceptualisation of cool (Im et al., 2015; Sundar et al., 2014; Warren and Campbell, 2014). Cool has been identified as an evasive concept in the extant literature (Gurrieri, 2009; Lindgren, 2013; Southgate, 2003b). Cool is usually studied in specific contexts meaning that a universal conceptualision is lacking (Rahman, 2013; Sundar et al., 2014). By studying cool in specific contexts, extant literature can only provide fragmented understandings about the concept. Therefore, the conceptual framework of cool based on a systematic review of the extant literature that is presented in Chapter 3 of the thesis can be seen as a unique contribution to the literature. The framework provides a holistic understanding of cool by integrating conceptualisations from different context-specific studies across disciplines. This method of developing the conceptual framework of cool allowed comprehensively identifying dimensions of cool that are not equally relevant in different contexts. For marketing researchers, the contextualisation of cool in Chapter 3 can act as a general framework for conceptualising cool in different relevant contexts, such as brand images, consumer perceptions of advertisements, and so on. For marketing practitioners, the conceptual framework can provide an understanding of what associations are relevant for embedding cool in brands. This understanding can also help marketing managers determine which trends suitably align with cool and therefore should be incorporated in the marketing of brands. Furthermore, the understanding will be useful for marketing managers in designing the appropriate marketing mix that is aligned with the seven dimensions identified in the conceptual framework: (1) deviating from norms, (2) subversive, (3) evasive, (4) attractive, (5) self-expressive, (6) pro-social, and (7) indicative of maturity. These dimensions are discussed below.

Deviating from norms

This dimension refers to how cool continuously differs from the expectations of others. Expectations are set by norms, which are determined by cultural ideals or the common ways of doing things (Cialdini, Reno, and Kallgren, 1990). Cool deviations from the norm are reflected through creativity in a personality context (Dar-Nimrod et al., 2012; Southgate, 2003b), innovativeness in a product context (Im et al., 2015; Sundar et al., 2014), and the upholding of minority subcultural identity in a cultural context (Belk et al., 2010; Nancarrow et al., 2002). Deviating from norms allows cool identities to stand out of the crowd and maintain exclusivity. This dimension is emphasised in past studies through terms such as unconventional, extraordinary, shocking, and so on (Belk et al., 2010; Bird and Tapp, 2008; Gurrieri, 2009; Kirkland and Jackson, 2009; Nancarrow et al., 2002; Southgate, 2003b). The use of a range of conceptually overlapping terms in the literature on cool can create confusion in the understanding of this dimension. Therefore, by unifying these terms under one dimension, this thesis contributes to a clearer understanding of the deviating from the norm aspect of cool. Identification of this dimension can help future research in addressing the transience of cool, which makes it difficult to capture cool at a point in time to study it. This transience has, in the past, thus confused researchers when studying cool (Knobil, 2002; Rahman, 2013; Warren and Campbell, 2014). For marketing managers, the conceptualisation of this dimension implies that market research practices should focus on identifying and evaluating consumer trends that deviate from norms to identify emerging cool trends. Furthermore, as the thesis outlines in Section 3.2.10.2, this dimension of cool can be used to engender pro-social behaviour by encouraging deviation from harmful behavioural norms in the society, such as smoking, drinking, sedentary life-style, and so on.

Subversive

This dimension relates to the countering of mainstream rules and norms by cool identities through rebellion. Existing research identifies that subversion can be reflected through rebellious tendencies in both the contexts of personality and culture (Belk et al., 2010; Dar-Nimrod et al., 2012; Nancarrow et al., 2002; Southgate, 2003b). Although subversion is less relevant to the context of an object, it can be relevant to brands as they can be perceived of as having personalities (Aaker, 1997). For example, Belk et al. (2010) suggested that the positioning of the Apple brand as countering commercial exploitations of dominant computer companies such as IBM was instrumental to the development of its subversive and cool image. The conceptualisation of this dimension contributes to the knowledge by identifying the specific nature of cool subversion. Cool identities counter rules that are perceived as unjust, and in ways that do not adversely affect the perception of justice associated with the identities themselves. For example, cool identities often involve an expression of subversion against the dominance of authority figures through irony, which is subtle and avoids causing direct confrontation (Dar-Nimrod et al., 2012; Nancarrow et al., 2002). In this way, cool subversion is related to being evasive and pro-social. Notably, evasive (p.) and prosocial (p.) are two dimensions in the conceptualisation of cool in this thesis. The thesis thus contributes to knowledge by providing a clear understanding of the nature of cool subversion. Marketing researchers should explore in future research the ability of cool identities to express subversion while remaining evasive and pro-social. Subversion is confrontational, but evasive is not. Again, subversion rejects social rules, but beign pros-social relates to betterment of the society. These indicate innate tensions within cool that needs further exploration. For marketing managers, a clear understanding of cool subversion can enable them to determine the type of subversive trends whose association can help maintain or enhance the cool of brands. Marketing managers can also choose to position their cool brands as countering larger competitors in alignment with this dimension.

Evasive

This dimension refers to the deliberate low visibility of, and accessibility to, something that is cool. Research identifies that in the context of personalities, evasiveness is reflected through the camouflaging of emotions or the use of irony (Belk et al., 2010; Dar-Nimrod et al., 2012; Kirkland and Jackson, 2009; Nancarrow et al., 2002). Evasiveness can also be reflected through low accessibility in the context of objects, difficulty to understand in the context of messages, and unfamiliarity in the context of cultures (Belk et al., 2010; de Chenecey, 2003; Fuller and Thygesen, 1997; Nancarrow et al., 2002). As indicated previously, evasiveness allows cool to both maintain exclusivity, and avoid confrontation while being subversive against mainstream rules and norms. Researchers used terms such as ironical, trickster, difficult to understand, showing detachment from emotions, and so on, to describe cool (Bird and Tapp, 2008; Bookman, 2013; Fuller and Thygesen, 1997; Maher, 2005; Rahman and Cherrier, 2010). However, no past study has specifically identified evasive as a dimension of cool. Therefore, this thesis contributes to knowledge by identifying and conceptualising the evasive dimension of cool. The evasiveness of cool identities entails that only certain consumers in a market can be expected to have awareness of cool brands. This understanding implies that researchers need to question the use of brand awareness as a measure of market performance for cool brands. Based on the understanding of this dimension, marketing managers can choose to incorporate evasiveness through ironical messages and less familiar elements to embed cool in brand-related communications.

Attractive

Attractiveness refers to the innate ability of cool things and individuals to draw the attention of others. Extant research identifies that attractiveness is reflected through confidence, wisdom, being well-groomed, passion, and so on in the context of individuals (Belk et al., 2010; Dar-Nimrod et al., 2012; Southgate, 2003b), and also through aesthetic qualities and exclusivity in the context of objects or cultural symbols (Maher, 2005; Rahman, 2013). Prior research has often presented attractiveness and desirability as an interchangeable element of cool (Belk et al., 2010; Bookman, 2013; Nancarrow et al., 2002; Sundar et al., 2014; Warren and Campbell, 2014; Warrington, 2010). However, the present conceptualisation identified that the two should not be confused. Once cool is identified by consumers, it becomes desirable to consumers as associating with it can help consumers appear cool. As such, this desirability results from, and is thus a consequence of, cool. The thesis contributes to knowledge by providing a clear understanding of how attractiveness can be related to cool in different contexts, and how this is distinct from desirability which is not a dimension of cool but is an outcome of something being cool. Attractiveness may allow cool to appeal to consumers while deviating from mainstream norms. Future research should empirically examine the validity of this hypothesis. As stated earlier, cool attractiveness can be reflected in different contexts in the forms of confidence, wisdom, being well-groomed, aesthetic qualities and so on. These provide marketing managers different alternative ways to embed cool attractiveness in marketing.

Self-expressive

This dimension refers to the expression of uniqueness of something that is cool. Self-expressions allow a cool identity to be authentic and unique. Such expressions can be in the form of upholding one's identity based on ethnic origin, gender, or life-style choices (Drissel, 2009; Maher, 2005; Saxton, 2005; Southgate, 2003b). Cool self-expressions is emphasised in past studies through terms such as individuality, originality, authenticity, and so on (Belk et al., 2010; Bird and Tapp, 2008; Frank, 1998; Gurrieri, 2009; Kirkland and Jackson, 2009; Nancarrow et al., 2002; Southgate, 2003b). Some researchers contradict the conceptualisation of this dimension by indicating that one may attain cool by mimicking or following existing cool consumer trends (Bird and Tapp, 2008; Nancarrow et al., 2002; Saxton, 2005). However, the extant literature explains that mimicking results in a loss, rather than the attainment, of cool (Belk et al., 2010; Gurrieri, 2009). When consumers start adopting a cool trend during its marketing, it leads to the diffusion of the trend in a market and results in a loss of exclusivity. The conceptualisation of this dimension contributes to knowledge by clarifying the relationship between authenticity and cool, and by identifying the different forms of cool self-expressions. For marketing researchers, the authenticity associated with self-expressive cool may provide an explanation of why cool expressions are transient. The understanding of this dimension implies marketing managers should identify and target smaller and more exclusive segment to offer niche products and services to embed cool in marketing.

Pro-social

This dimension refers to the motive to contribute to the betterment of the society. The pro-social aspect allows consumers to perceive cool deviations from norms and subversions as appropriate and justified because they are oriented towards social benefit. The history of contemporary cool indicates that cool trends were often associated with pro-social movements (Belk et al., 2010). Past studies indicate that the cool is sometimes associated with self-development and overcoming insecurity in the context of personality (O'Donnell and Wardlow, 2000; Southgate, 2003b), and with democracy and empowerment in the context of culture (Belk et al., 2010; Heath and Potter, 2005). In addition, Warren and Campbell (2014) empirically demonstrated that deviating from illegitimate norms is related to cool. However, no past study has specifically identified and clarified the pro-social aspect of cool. Therefore, the clear conceptualisation of pro-social as a dimension of cool can be seen as a unique contribution to knowledge. The conceptualisation of this dimension contradicts the suggestion of Bird and Tapp (2008) that cool is related to activities detrimental to society such as underage smoking and drinking. This contradiction can be explained through the association of cool with the indication of maturity, another dimension of cool discussed in the following pages (p.). As indicated in the discussion on cool subversion, marketing researchers should explore the nature of relationship between subversion and being pro-social in relation to cool. For marketing managers, this dimension implies that marketing to enhance or maintain coolness of brands should engage with relevant pro-social causes. Furthermore, conceptualisation of pro-social dimension of cool can enable social marketers to use cool for engendering pro-social behaviour as outlined in Chapter 3 (pp.).

Indicative of maturity

This dimension refers to the ability that results from experience, and distinguishes cool from others. This can be reflected in the form of wisdom, intelligence, capacity, purposefulness, and autonomy, in the contexts of personality and culture (Kirkland and Jackson, 2009; Plumridge et al., 2002; Warren and Campbell, 2014). Although past studies indicated that cool is related to a rite of passage to adulthood in African American communities, and that adolescents mimic adult behaviour to appear cool (Bird and Tapp, 2008; O'Donnell and Wardlow, 2000; Thompson, 1973), cool’s association with indication of maturity is not specifically emphasised in extant literature. The conceptualisation of pro-social as a dimension of cool indicates that while some adolescents may choose to participate in underage smoking and drinking to indicate maturity and appear cool (Bird and Tapp, 2008), an adult’s ability can be related to having a pro-social perspective (Southgate, 2003b). This conceptualisation thus contributes to knowledge by clarifying the nature of this dimension. Future research should explore whether abilities that are not related to experience can be relevant to cool. For marketing managers, identification of this dimension implies that marketing should avoid appearing childish to maintain cool of brands.

6.2.2 Explicating brand cool and developing an empirical model

The lack of, and the need for, a rigorously developed and empirically tested model of brand cool has been outlined by previous studies (Im et al., 2015; Sundar et al., 2014; Warren and Campbell, 2014). Heretofore, the absence of a clear understanding and general conceptualisation of cool has impeded the development of such models in the past. This thesis contributes to the literature by addressing this gap and presenting a theoretically driven and empirically tested model of brand cool in Chapter 5. The model development process was informed by the conceptual framework of cool from Chapter 3, and rigorously followed scientific methods. Notably, the analysis of empirical survey data helped develop the model, and then further empirical survey data helped to test and validate it. The model contributes to knowledge by providing a clear understanding of the nature of brand cool and its specific dimensions. This understanding can assist researchers to conceptualise the antecedents and consequences of, and hypothesise the nature of their relationships with, cool from a marketing perspective. For marketing managers, the empirically tested model can provide an understanding of what dimensions reflect consumer perceptions of cool brands. Furthermore, this understanding can enable marketing managers in aligning their strategies to reflect the four dimensions of brand cool identified in this thesis: (1) dynamism, (2) composure, (3) subversion, and (4) confidence.

Dynamism

Dynamism refers to a cool brand's continuous deviation from trends. Cool dynamism allows brands to remain exclusive over time. This dynamism is related to innovation, which is presented as a dimension of the cool of technology brands by Sriramachandramurthy (2009). Beyond innovation, dynamism is also related to the presenting of new and different perspectives to consumers to stand apart from competing brands. The dynamic and transient nature of cool was commonly perceived by researchers as an impediment for explicating the concept (Knobil, 2002; Rahman, 2013; Warren and Campbell, 2014). The comprehensive review of literature conducted in this thesis identified that no previous study has conceptualised or in an empirical model identified dynamism as a dimension of cool. Therefore, the identification of this dimension in the research uniquely contributes to the literature. It could be argued that the deviating from norms dimension of the general conceptualisation of cool presented earlier in the thesis (Chapter 3) relates to this dynamism as both of these indicate the tendency of cool to continuously deviate from norms or trends. Identifying dynamism as a dimension of an empirical model implies that marketing researchers need to study cool symbols and brands as identities that evolve over time, much like living things such as individuals. The identification of this dimension implies that to enhance or maintain the cool of a brand, marketing managers should continuously update the brand identity, product packaging, and advertising messages for the brand in ways that deviate from, not only industry trends, but also, the trend earlier set by the brand.

Composure

The composure dimension identifies that cool brands are reserved and understated. The identification of this dimension puts into perspective, and emphasises, the meaning of cool as ‘grace under pressure’ from its Nigerian origins in the 1400s (Belk et al., 2010). No previous empirical study in relation to model-development, emphasised composure as a key association to the contemporary perception of cool. Therefore, the research contributes to the literature by clarifying that composure is a key dimension in the context of brands. This dimension can be related to the evasive dimension from the general conceptualisation of cool presented earlier in the thesis (Chapter 3), as both the dimensions indicate the tendency of cool to maintain a low visibility. The findings imply that researchers should incorporate composure as a key association when conceptualising cool in a marketing context. The absence of composure in previous conceptualisations also indicates that researchers may need to re-examine extant theories on antecedents and consequences of embedding cool in brands. This understanding also implies that researchers need to question the use of brand awareness as a measure of market performance for cool brands. For marketing managers, identifying composure as a dimension of brand cool implies rethinking brand marketing strategies. Traditionally, marketing strategies focus on creating high level of brand awareness in a market. As the understanding of composure counters this perspective, the findings imply that marketing managers need to be selective in choosing marketing communication channels and distribution channels in order to maintain or enhance the cool of brands.

Subversion

Subversion refers to the countering of rules and mainstream norms by cool brands. Consumers perceive cool brands to be rebellious, unconventional, and hedonistic. This dimension allows brands to associate with rebellious tendencies that is relevant for consumers in portraying a cool image. Although the excitement and uniqueness dimensions from the study on technology brands by Sriramachandramurthy (2009) can be considered relevant to the subversive nature of brands, the hedonistic rebellious tendencies of cool are not included in those dimensions. Similarly, the unconventionality dimension in the study by Loureiro and Lopes (2011) is also unable to appropriately capture the rebellious tendencies of cool brands. Therefore, this PhD research contributes to the understanding of cool brands by emphasising their hedonistic rebellious tendencies through this dimension. The findings indicate that researchers need to explore how cool brands, as legal entities, are able to counter rules and mainstream norms without drawing negative associations. For marketing managers, this dimension underlines the need to position a cool brand as countering the exploits of dominant brands, and not as the brand that sets rules. This also indicates that marketing managers need to be cautious in communications when a brand gains significant market share, as consumers may perceive subversive messages from a well-known and established brand as dominant and authoritative.

Confidence

Confidence refers to the self-assuredness of cool brands. A cool brand is perceived to be self-assured, passionate, direct, and proud in its communications. The findings from the research suggest that the confidence of cool brands is strongly related to their dynamism. Confidence allows cool brands to continuously deviate from norms without appearing inconsistent. As stated earlier, the comprehensive literature review conducted in this thesis identifies only two studies on brand coolness by Loureiro and Lopes (2011) and Sriramachandramurthy (2009). None of these studies identify any dimension that relates to the confidence of cool brands. Therefore, the identification of this dimension can be considered a unique contribution to knowledge. The general conceptualisation of cool earlier in the thesis (Chapter 3) identifies that confidence can be a relevant form of innate attractiveness of cool identities in some contexts. Sundar et al. (2014) identified attractiveness, and Loureiro and Lopes (2011) identified preciousness, as dimensions in their empirical models of brand coolness, which are relevant to this understanding of cool attractiveness. However, reviewing the construction of those dimensions from their studies indicate that they emphasise only aesthetic qualities of cool attractiveness. Therefore, researchers should further explore whether confidence is the only form of attractiveness that reflects brand cool as identified in this research, or if there are other relevant forms of cool attractiveness for brands. The identification of this dimension implies that while cool brands should be dynamic in continuously deviating from trends, marketing managers should ensure clear communications from, and the firm and consistent positioning of, such brands.

6.2.3 Development and validation of a brand cool scale

Till date the marketing literature has lacked a rigorously developed, valid and reliable scale to measure the cool of brands across product categories (Im et al., 2015). The scale proposed by Loureiro and Lopes (2011) lacks examination of its validity and reliability, and the validated scale of Sriramachandramurthy (2009) could not be generalised for all brands due to its relevance specifically to technology brands. This thesis contributes to the marketing literature by addressing this gap, and presenting an 18-item valid and reliable scale to measure brand cool (Chapter 5). The scale establishes cool as a measurable concept in the context of brands. Heretofore, the lack of a valid and reliable scale to measure brand cool impeded the ability of marketing researchers to test the theories on cool, and empirically study its antecedents and consequences. The scale will be useful to researchers for such studies. Furthermore, the parsimonious 18-item brand cool scale will enable marketing managers to effectively and efficiently evaluate their efforts for embedding cool in brands. Traditionally, marketing managers rely on the subjective judgements of coolhunting agencies to evaluate the outcomes of their efforts (Bird and Tapp, 2008; Nancarrow et al., 2002; Southgate, 2003b). The new scale presented in this thesis will help marketing managers to evaluate the efforts to embed cool in brands by providing them with an objective instrument.

During the concurrent validity assessment of the new scale, the research found that brand cool has a strong positive relationship with brand equity. The research findings suggest that although brand cool has a positive relationship with brand equity, it does not relate positively to each of the major components of brand equity (namely, brand loyalty and brand awareness). The findings suggest that brand cool has a positive relationship with brand loyalty, but has no meaningful relationship to brand awareness. Although researchers have long hypothesised that the cool of brands positively influence the perceived value of brands (Belk et al., 2010; Gurrieri, 2009; Im et al., 2015; Southgate, 2003b; Sundar et al., 2014), the present study was the first to empirically test and validate this relationship. Furthermore, no past research has examined the nature of the relationship between cool and brand equity. Therefore, these findings indicate a unique contribution of the research to knowledge. The lack of a meaningful relationship between brand cool and brand awareness identified in this PhD can be explained through the understanding gained from the empirical model of cool. The understanding of the composure dimension of the model indicates that cool brands are understated, and can therefore sometimes have low brand awareness compared to other brands. The varying level of brand awareness for cool brands can result in identifying a lack of statistically meaningful relationship between brand awareness and brand cool, as was identified in the study. It may thus be argued that the brand equity of cool brands results from the relevant brand loyalty, and not brand awareness. This implies that researchers need to question the use of brand awareness as a measure of market performance for cool brands. Furthermore, the findings indicate that marketing managers should focus on strategies to build and enhance consumers' loyalty towards their brand rather than to increase brand awareness.

6.2.4 Different perceptions of adolescents and adults in relation to cool

Study 2 (qualitative interview study) of the thesis focused primarily on generating items to develop a brand cool scale. However, a further analysis of the data collected from consumer group discussions also provided some new insights in relation to consumers' cool identity projects. The study found that that cool identities of adolescent and adult consumers differ in three aspects: materialism versus idealism, communal identity versus individuality, and expansion of horizon. Study 2 identifies that these differences are related to the gradual changes in consumers' cultural capital. The investigation of subcultural differences in cool identities by focusing on life stage as the subcultural variable is a new approach to exploring cool. The findings identify the need to incorporate ideals and abstract values relevant to adult cool consumers to influence such consumers. Furthermore, the paper indicates that incorporating novel experiences may allow marketers to attract relatively older consumers towards cool brands.

6.3 Research limitations and suggestions for future research

The thesis has some important limitations to acknowledge. First, a limitation of the research is that it aimed to develop and empirically test a model of cool that is relevant and generalisable for brands across product categories, but the survey studies only included a limited number of brands. Although data used in developing and testing the model were collected on brands that belong to a range of product categories, this limitation may limit the generalisability of the model. A possible method to overcome this limitation may be to incorporate an unspecified sample of brands by allowing respondents to use brands of their choice. However, such a method can, neither ascertain that brands from a wide range of product categories will be included, nor that the included brands in the sample will have varying degrees of cool. Notably, a sample containing objects with varying degrees of the characteristic of interest is required to ascertain the validity of empirical models (Churchill, 1979; DeVellis, 2016; Hair et al., 1998). Another possible method to overcome the limitation can be to include a larger sample of brands from across a wider range of product categories with varying levels of cool while carrying out the surveys. As this method may produce better results, future research is recommended to test the brand cool model for a larger sample of brands following this method.

Second, the focus of the research was limited to Australian consumers. This is an important limitation as this limits the generalizability of the model and the scale for different countries and cultures. Notably, Warren and Campbell (2014) indicate that the perception of cool may vary across cultures. Therefore, it is recommended that future research examines the validity of the model across countries and cultures. However, there are a few practical issues related to carrying out such research across countries and cultures. The survey used for developing the model in this research was in English. The translation of surveys can lead to somewhat questionable responses (McGorry, 2000). Furthermore, as cool is a socially constructed concept, it may be affected by the contextual differences in different cultures. Nonetheless, it is possible for future research to test the brand cool model presented in this thesis in different English-speaking countries.

Third, the research did not consider the effects of different types of brand portfolios on the cool image of a brand when developing the model of, and the scale for measuring, brand cool. Notably brands can belong to different types of portfolios (Kapferer, 1994; Keller, 1993; Nguyen et al., 2018) such as: an umbrella brand portfolio (one brand used for all offerings of an organisation); or a sub-brands portfolio (different prefix or suffix with one main brand for different offerings). This is an important limitation of the research as the present research focused on consumer perceptions in relation to specific cool brands, but consumer perceptions regarding a brand that belong to a portfolio of brands could be influenced by other brands of the portfolio (Aaker, 1996; Kayande, Roberts, Lilien, and Fong, 2007; Nguyen et al., 2018). Future research should therefore examine and compare the brand cool model for different types of brand portfolios.

Fourth, a fundamental limitation of concept explication and scale development research is the ability of existing methods to explicate concepts, empirically test conceptual models, and develop scales only for specific domains (Chaffee, 1991; Churchill, 1979; DeVellis, 2016). This limits the ability of studies employing these methods to provide a holistic understanding of, and develop general empirical models in relation to, concepts such as cool that can be more universal and relevant in different contexts. By identifying this limitation of existing methodologies, this thesis first developed a general conceptualisation of cool through a systematic literature review (Chapter 3), to integrate existing context-specific understandings of cool from extant studies. Consequently, the thesis developed and presented an empirical model and a scale of cool in the domain of brands. Notably, as a brand sums up everything consumers associate with the brand name in their minds (Dobni and Zinkhan, 1990; Newman, 1957), a model and a scale in the domain of brands can be useful for different marketing contexts such as brand visuals, packaging, advertising, and so on.

Finally, there are some specific issues in relation to the methodology applied to arrive at the qualitative findings from the research. An issue with the methodology is that the research compared perceptions of adolescent and adult consumers regarding cool, but used retrospective data as a proxy from adult consumers who reflected back on their thoughts about cool from when they were adolescent consumers. This affects the validity of the findings by assuming that participants remember and can explain their past perspectives in a verbatim manner. Future research may address this issue by conducting longitudinal cohort research examining associations of consumer identities with cool as adolescents, and then again later when they are adults. Another issue is the inability of the methodology to control for the effects of environmental changes over time in forming consumer perceptions of cool. The evolution of cool discussed in the literature review indicates that cool gains new associations as political, social, and technological environment in a market changes with time (e.g., equal rights for African Americans, government policies in the USA during the World War II, etc.). This may lead to wrongly identifying effects of environment on consumer perceptions as the effects of their perceptions in different life-stages. Future research may address this issue by simultaneously collecting data from consumers who belong to different life-stages. Therefore, to appropriately address the limitations, future research should focus on consumers across life stages at a point in time, and then replicate the study with the cohort to assess how changes in the environment may influence perceptions of cool.

6.4 Thesis conclusion

This thesis aimed to address important gaps in the marketing literature by providing a general understanding of cool, and by developing an empirically tested measurement model and a scale of cool. By integrating the understandings of cool in different contexts identified through a systematic literature review across disciplines, the thesis presented a conceptual framework of cool in Chapter 3. The conceptual framework provides a holistic understanding of cool, and can be extended to different contexts where cool is relevant. The conceptual framework identified seven dimensions of cool: (1) deviating from norms; (2) subversive; (3) evasive; (4) attractive; (5) self-expressive; (6) pro-social; and (7) indicative of maturity.

Based on the understandings developed for the conceptual framework of cool, the thesis next provided a conceptualisation of cool in the context of brands, a relevant context for marketing. Adopting a qualitative interview study approach involving consumers, marketing academics and managers, the thesis then empirically explored cool, and generated a list of attributes relevant to cool brands for use in the subsequent scale development study. The qualitative exploration of cool with consumers also identified new insights regarding how consumer perceptions of cool evolve as they transition from adolescence to adulthood. The insight suggests that while adolescent consumers engage with cool through group norm conformity, adult consumers engage with self-expressive and pro-social cool.

The list of attributes of cool brands generated from the qualitative interview and the associations of cool identified from the literature review were next screened by a panel of experts to form an initial brand cool scale. A series of surveys and a second review by a panel of experts helped to refine and purify the brand cool scale, and to assess its validity and reliability. Based on the analyses of the survey data, the thesis presented an empirical model of brand cool, and a parsimonious 18-item valid and reliable scale to measure brand cool. The empirical model of brand cool consisted of four different dimensions that reflect brand cool: (1) dynamism; (2) composure; (3) subversion; and (4) confidence. The thesis makes a significant contribution to knowledge by presenting the first theoretically driven and rigorously developed measurement model of cool for marketing.

REFERENCES

Aaker, D. A. (1991). *Managing brand equity*: Free Press.

Aaker, D. A. (1996). Measuring brand equity across products and markets. *California Management Review, 38*(3), 102-120.

Aaker, D. A., Kumar, V., Day, G., Lawley, M., and Stewart, D. (2007). *Marketing research: The second Pacific rim edition*. Australia: John Wiley and Sons.

Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research, 34*(3), 347-356.

Aaker, J. L., Benet-Martinez, V., and Garolera, J. (2001). Consumption symbols as carriers of culture: A study of Japanese and Spanish brand personality constucts. *Journal of Personality and Social Psychology, 81*(3), 492.

Akter, S., D'Ambra, J., and Ray, P. (2013). Development and validation of an instrument to measure user perceived service quality of mHealth. *Information and Management, 50*(4), 181-195. doi:http://dx.doi.org/10.1016/j.im.2013.03.001

Allison, A. (2009). The cool brand, affective activism and Japanese youth. *Theory, Culture and Society, 26*(2-3), 89-111. doi:10.1177/0263276409103118

Anderson, J. C., and Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin, 103*(3), 411-4223.

Aquino, K., and Reed II, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology, 83*(6), 1423-1440.

Arbashi, J., Ferguson, S., and Knight, J. (2014). *New perspectives on democratisation in the luxury market: The engagement of consumers in marketplace meanings*. Paper presented at the ANZMAC Annual Conference 2014, Brisbase, Australia. http://pandora.nla.gov.au/tep/25410

Arnould, J. E. and Thompson, C. J. (2018). *Consumer Culture Theory*: Sage Publications.

Asbury, L. D., Wong, F. L., Price, S. M., and Nolin, M. J. (2008). The VERB™ campaign. *American Journal of Preventive Medicine, 34*(6), S183-S187.

Avis, M. (2012). Brand personality factor based models: A critical review. *Australasian Marketing Journal (AMJ), 20*(1), 89-96. doi:10.1016/j.ausmj.2011.08.003

Bagby, R. M., Taylor, G. J., and Parker, J. D. (1994). The twenty-item Toronto Alexithymia Scale—II. Convergent, discriminant, and concurrent validity. *Journal of Psychosomatic Research, 38*(1), 33-40.

Bagozzi, R. P., and Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science, 16*(1), 74-94.

Bahl, S., and Milne, G. R. (2007). Mixed methods in interpretive research: an application to the study of the self concept. In R. W. Belk (Ed.), *Handbook of qualitative research methods in marketing* (pp. 198-218). Northampton, MA: Edward Elgar.

Barnard, N. R., and Ehrenberg, A. S. (1990). Robust measures of consumer brand beliefs. *Journal of Marketing Research, 27*(4), 477-484.

Baumgartner, H., and Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: A review. *International Journal of Research in Marketing, 13*(2), 139-161.

Belk, R. W. (2007). *Handbook of qualitative research methods in marketing*: Edward Elgar Publishing.

Belk, R. W., Tian, K., and Paavola, H. (2010). Consuming cool: Behind the unemotional mask. *Research in Consumer Behavior, 12*(12), 183-208. doi:10.1108/S0885-2111(2010)0000012010

Berry, J. W. (2001). A psychology of immigration. *Journal of Social Issues*, *57*(3), 615-631.

Biesta, G. J. J., and Burbules, N. C. (2003). *Pragmatism and educational research*. Lanham, MD: Rowman and Littlefield.

Bird, S., and Tapp, A. (2008). Social Marketing and the Meaning of Cool. *Social Marketing Quarterly*, *14*(1), 18-29. doi:10.1080/15245000801898399

Birt, L., Scott, S., Cavers, D., Campbell, C., and Walter, F. (2016). Member checking. *Qualitative Health Research*, *26*(13), 1802-1811. doi:10.1177/1049732316654870

Bookman, S. (2013). Branded cosmopolitanisms: 'Global' coffee brands and the co-creation of 'cosmopolitan cool'. *Cultural Sociology*, *7*(1), 56-72. doi:10.1177/1749975512453544

Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. London: Routledge.

Bourdieu, P. (1986). Forms of capital. In J. Richardson (Ed.) and R. Nice (Trans.), *Handbood of Theory and Research for the Sociology of Education,* (pp. 241-258): NY: Greenwood.

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, *9*(2), 27-40.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*: sage.

Brakus, J. J., Schmitt, B. H., and Zarantonello, L. (2009). Brand experience: what is it? How is it measured? Does it affect loyalty? *Journal of Marketing, 73*(3), 52-68.

Braun, V., and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. doi:10.1191/1478088706qp063oa

Brown, T. A. (2014). *Confirmatory factor analysis for applied research*: Guilford Publications.

Browne, M. W., and Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods and Research, 21*(2), 230-258.

Bruun, A., Raptis, D., Kjeldskov, J., and Skov, M. B. (2016). Measuring the coolness of interactive products: The COOL questionnaire. *Behaviour and Information Technology, 35*(3), 233-249.

Buchanan, E. A., and Hvizdak, E. E. (2009). Online survey tools: Ethical and methodological concerns of human research ethics committees. *Journal of Empirical Research on Human Research Ethics, 4*(2), 37-48.

Burton, S., Hoek, J., Nesbit, P., and Khan, A. (2015). "Smoking is bad, it's not cool… yet I'm still doing it": Cues for tobacco consumption in a 'dark'market. *Journal of Business Research, 68*(10), 2067-2074.

Cerny, B. A., and Kaiser, H. F. (1977). A study of a measure of sampling adequacy for factor-analytic correlation matrices. *Multivariate Behavioral Research, 12*(1), 43-47.

Chaffee, S. H. (1991). *Communication concepts 1: Explication*. Newbury Park, CA: Sage.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London, UK: SAGE.

Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research (JMR), 16*(1), 64-73.

Cialdini, R. B., Reno, R. R., and Kallgren, C. A. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology, 58*(6), 1015-1026.

Cobb-Walgren, C. J., Ruble, C. A., and Donthu, N. (1995). Brand equity, brand preference, and purchase intent. *Journal of Advertising, 24*(3), 25-40.

Coghlan, D., and Brydon-Miller, M. (2014). *The SAGE encyclopedia of action research*: Sage.

Coker, B. L. S., Ashill, N. J., and Hope, B. (2011). Measuring internet product purchase risk. *European Journal of Marketing, 45*(7/8), 1130-1151.

Consumer Online Panel. Survey Sampling International. Retrieved from https://www.surveysampling.com/audiences/consumer-online/

Coolbrands. (2018). An insight into some of Britain's coolest brands. Retrieved from http://www.coolbrands.uk.com

Corbetta, P. (2003). *Social research: Theory, methods and techniques*: Sage.

Costello, A. B., and Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research and Evaluation, 10*(7), 1-9.

Courtney, M. G. R., and Gordon, M. (2013). Determining the number of factors to retain in EFA: Using the SPSS R-menu v2. 0 to make more judicious estimations. *Practical assessment, research and evaluation, 18*(8), 1-14.

Creswell, J. W., and Clark, V. L. P. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage publications.

Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., and Hanson, W. E. (2003). Advanced mixed methods research designs. In A. Tashakkori and C. B. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 209-240). Thousand Oaks, CA: Sage.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297-334.

Cronbach, L. J., and Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin, 52*(4), 281.

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*: Sage.

Culén, A. L., and Gasparini, A. A. (2012). Situated techno-cools: Factors that contribute to making technology cool in a given context of use. *PsychNology Journal, 10*(2), 117-139.

Cullen, F. (2010). 'Two's up and poncing fags': Young women's smoking practices, reciprocity and friendship. *Gender and Education, 22*(5), 491-504. doi:10.1080/09540250903481595

Curd, P. (2011). *A presocratic reader: Selected fragments and testimonia*. Cambridge: Hackett.

Danesi, M. (1994). *Cool: The signs and meanings of adolescence*. N.Y.: University of Toronto Press.

Dar-Nimrod, I., Hansen, I. G., Proulx, T., Lehman, D. R., Chapman, B. P., and Duberstein, P. R. (2012). Coolness: An empirical investigation. *Journal of Individual Differences, 33*(3), 175-185. doi:10.1027/1614-0001/a000088

de Chenecey, S. P. (2003, January 2003). What's facing your brand? Looking ahead to 2003. *Admap,* 46-47.

De Chernatony, L., and Dall'Olmo Riley, F. (1998). Defining a" brand": Beyond the literature with experts' interpretations. *Journal of Marketing Management, 14*(5), 417-443.

de Souza, M. (1997). *Desperately seeking 'cool' kid leaders and how to find them*. Paper presented at the ESOMAR: Youth Marketing, Copenhagen.

De Vaus, D. A. (2001). *Research design in social research*: Sage.

De Vaus, D. A. (2013). *Surveys in social research*: Routledge.

Deese, J., and Kaufman, R. A. (1957). Serial effects in recall of unorganized and sequentially organized verbal material. *Journal of Experimental Psychology, 54*(3), 180-187.

Denzin, N. K., and Lincoln, Y. S. (2011). *The Sage handbook of qualitative research*: Sage.

Devaux, M., and Lamanna, M. (2009). The rise and early history of the term ontology (1606-1730). *Quaestio, 9,* 173-208. doi:10.1484/j.quaestio.1.100702

DeVellis, R. F. (2016). *Scale development: Theory and applications*: Sage publications.

Diamantopoulos, A., and Winklhofer, H. M. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of Marketing Research, 38*(2), 269-277.

Dijk, F., Nooijer, J. d., Heinrich, E., and Vries, H. d. (2007). Adolescents' view on smoking, quitting and health education. *Health Education, 107*(2), 114-125. doi:10.1108/09654280710731539

Dinerstein, J. (1999). Lester young and the birth of cool. In G. D. Caponi (Ed.), *Signifyin(g), sanctifyin(g), and slam dunking: A reader in African American expressive culture* (pp. 239-278). MA: University of Massachusetts Press.

Dobni, D., and Zinkhan, G. M. (1990). *In search of brand image: A foundation analysis*. Paper presented at the ACR North American Advances.

Drissel, D. (2009). Reinventing rebellion: Alternative youth subcultures in Post-Tiananmen China. *International Journal of Interdisciplinary Social Sciences*, *3*(10), 39-59.

Dworkin, S. L. (2012). Sample size policy for qualitative studies using in-depth interviews. *Archives of Sexual Behavior, 41*(6), 1319-1320.

Dziuban, C. D., and Shirkey, E. C. (1974). When is a correlation matrix appropriate for factor analysis? Some decision rules. *Psychological Bulletin, 81*(6), 358-361.

Dziuban, C. D., and Shirkey, E. C. (1980). Sampling adequacy and the semantic differential. *Psychological Reports, 47*(2), 351-357.

Edwards, J. R., and Bagozzi, R. P. (2000). On the nature and direction of relationships between constructs and measures. *Psychological Methods*, *5*(2), 155-174.

Erikson, E. H. (1994). *Identity and life cycle*: WW Norton and Company.

Everett, P. B., Pieters, R. G., and Titus, P. A. (1994). The consumer-environment interaction: An introduction to the special issue. *International Journal of Research in Marketing*, *11*(2), 97-105.

Fallin, A., Neilands, T. B., Jordan, J. W., Hong, J. S., and Ling, P. M. (2015). Wreaking “havoc” on smoking: social branding to reach young adult “partiers” in Oklahoma. *American Journal of Preventive Medicine, 48*(1), S78-S85.

Fallin, A., Neilands, T. B., Jordan, J. W., and Ling, P. M. (2015). Social branding to decrease lesbian, gay, bisexual, and transgender young adult smoking. *Nicotine and Tobacco Research, 17*(8), 983-989.

Farrelly, M. C., Davis, K. C., Haviland, M. L., Messeri, P., and Healton, C. G. (2005). Evidence of a dose—response relationship between “truth” antismoking Ads and youth smoking prevalence. *American Journal of Public Health, 95*(3), 425-431.

Farrelly, M. C., Healton, C. G., Davis, K. C., Messeri, P., Hersey, J. C., and Haviland, M. L. (2002). Getting to the truth: evaluating national tobacco countermarketing campaigns. *American Journal of Public Health, 92*(6), 901-907.

Ferguson, S. (2011). A global culture of cool? Generation Y and their perception of coolness. *Young Consumers, 12*(3), 265-275.

Fern, E. F. (1982). The use of focus groups for idea generation: the effects of group size, acquaintanceship, and moderator on response quantity and quality. *Journal of Marketing Research, 19*, 1-13.

Field, A. (2000). *Discovering statistics using SPSS for Windows*. London, UK: SAGE.

Fisher, M., Baum, F., MacDougall, C., Newman, L., and McDermott, D. (2015). A qualitative methodological framework to assess uptake of evidence on social determinants of health in health policy. *Evidence and Policy: A Journal of Research, Debate and Practice, 11*(4), 491-507. doi:10.1332/174426414X14170264741073

Fitton, D., Read, J. C., Horton, M., Little, L., Toth, N., and Guo, Y. (2012). Constructing the Cool Wall: A Tool to Explore Teen Meanings of Cool. *PsychNology Journal, 10*(2), 141-162.

Fornell, C., and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50. doi:10.2307/3151312

Frank, T. (1998). *The conquest of cool: Business culture, counterculture, and the rise of hip consumerism*: University of Chicago Press.

Freling, T. H., Crosno, J. L., and Henard, D. H. (2011). Brand personality appeal: conceptualization and empirical validation. *Journal of the Academy of Marketing Science, 39*(3), 392-406. doi:10.1007/s11747-010-0208-3

Friedman, H. H., and Leefer, J. R. (1981). Label versus: Position in rating scales. *Journal of the Academy of Marketing Science, 9*(2), 88-92.

Frith, H., and Gleeson, K. (2004). Clothing and embodiment: Men managing body image and appearance. *Psychology of Men and Masculinity, 5*(1), 40-48.

Fuller, K., and Thygesen, F. (1997). *Complacency kills: protecting Levi's cool mindshare*. Paper presented at the ESOMAR: Youth Marketing, Copenhagen.

Gale, R. M. (2008). *The Blackwell guide to metaphysics*: John Wiley and Sons.

Gaskins, Q. (2003). The science of cool: The art of understanding fusionism. *ANA*.

Gerber, J. P., and Geiman, C. (2012). Measuring the existence of cool using an extended Social Relations Model. *PsychNology Journal, 10*(2), 103-115.

Gerbing, D. W., and Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research (JMR), 25*(2), 186-192.

Geuens, M., Weijters, B., and De Wulf, K. (2009). A new measure of brand personality. *International Journal of Research in Marketing, 26*(2), 97-107. doi:10.1016/j.ijresmar.2008.12.002

Ghiselli, E. E., Campbell, J. P., and Zedeck, S. (1981). *Measurement theory for the behavioral sciences*: WH Freeman.

Gilliam, D. A., and Voss, K. (2013). A proposed procedure for construct definition in marketing. *European Journal of Marketing, 47*(1/2), 5-26. doi:10.1108/03090561311285439

Given, L. (2008). The SAGE Encyclopedia of Qualitative Research Methods. doi:10.4135/9781412963909

Gladwell, M. (1997). The coolhunt: who decides what's cool? Certain kids in certain places–and only the coolhunters know who they are. *The New Yorker*.

Glaser, B. G., and Strauss, A. L. (1967). *The discovery ofgrounded theory: Strategiesfor qualitative research*. Chicago: Aldire.

Glenn, N. D. (2005). *Cohort analysis* (2nd ed.): Sage.

Goffman, K., and Joy, D. (2007). *Counterculture through the ages: From Abraham to acid house*: Villard.

Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment, 4*(1), 26.

Gordon, H. S. (2002). *The history and philosophy of social science*: Routledge.

Gordon, R., Jones, S., Barrie, L., and Gilchrist, H. (2015). Use of brand community markers to engage existing lifestyle consumption communities and some ethical concerns. *Journal of Macromarketing, 35*(4), 419-434.

Gorsuch, R. L. (1997). Exploratory factor analysis: Its role in item analysis. *Journal of Personality Assessment, 68*(3), 532-560.

Goulding, C. (1999). Consumer research, interpretive paradigms and methodological ambiguities. *European Journal of Marketing, 33*(9/10), 859-873. doi:10.1108/03090569910285805

Goulding, C. (2005). Grounded theory, ethnography and phenomenology: A comparative analysis of three qualitative strategies for marketing research. *European Journal of Marketing*, *39*(3/4), 294-308. doi:10.1108/03090560510581782

Goulding, C., and Saren, M. (2012). Gothic'entrepreneurs: A study of the subcultural commodification process. In B. Cova, R. Konzinets, and A. Shankar (Eds.), *Consumer tribes* (pp. 227-242): Routledge.

Gray, D. E. (2013). *Doing research in the real world*: Sage.

Grohmann, B. (2009). Gender dimensions of brand personality. *Journal of Marketing Research, 46*(1), 105-119.

Guba, E. G., and Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin and Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117): Sage.

Gurrieri, L. (2009). *Cool brands: A discoursive identity approach*. Paper presented at the ANZMAC, Melbourne, Australia.

Gutek, G. L. (1997). *Philosophical and ideological perspectives on education*. Boston, MA: Allyn and Bacon.

Hair, J., Bush, R., and Ortinau, D. (2006). *Marketing Research Within a Changing Environment*. New York: McGraw-Hill/Irwin.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., and Tatham, R. L. (1998). *Multivariate data analysis* (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Halfpenny, P. (2001). Positivism in the twentieth century. In G. Ritzer and B. Smart (Eds.), *Handbook of Social Theory* (pp. 371-385): Sage.

Hanson, D., and Grimmer, M. (2007). The mix of qualitative and quantitative research in major marketing journals, 1993-2002. *European Journal of Marketing, 41*(1/2), 58-70.

Harrington, D. (2009). *Confirmatory factor analysis*: Oxford University Press.

Harrison, R. L., and Reilly, T. M. (2011). Mixed methods designs in marketing research. *Qualitative Market Research: An International Journal, 14*(1), 7-26.

Hasan, M. N. (2016). Positivism: to what extent does it aid our understanding of the contemporary social world? *Quality and Quantity, 50*(1), 317-325.

Hastings, G., MacFadyen, L., and Stead, M. (1997). Tobacco marketing: shackling the pied piper. *British Medical Journal, 315*(7106), 439-440.

Hayes, N. (1997). Theory-led thematic analysis: Social identification in small companies.

Heath, J., and Potter, A. (2005). *Nation of rebels: Why counterculture became consumer culture*. New York: Harper Business.

Hede, A.-M., Garma, R., Josiassen, A., and Thyne, M. (2014). Perceived authenticity of the visitor experience in museums: Conceptualization and initial empirical findings. *European Journal of Marketing, 48*(7/8), 1395-1412. doi:10.1108/EJM-12-2011-0771

Heinonen, K. (2011). Consumer activity in social media: Managerial approaches to consumers' social media behavior. *Journal of Consumer Behaviour, 10*(6), 356-364.

Heitzler, C. D., Asbury, L. D., and Kusner, S. L. (2008). Bringing “play” to life: the use of experiential marketing in the VERB™ campaign. *American Journal of Preventive Medicine*, *34*(6), S188-S193.

Hemetsberger, A. (2006). When David becomes Goliath-Ideological Discourse in New Online Consumer Movements. *Advances in Consumer Research, 33*, 494-500.

Henry, P., and Caldwell, M. (2018). Social class. In J. E. Arnould, and C. J. Thompson (Eds.), *Consumer Culture Theory* (pp. 153-179). Sage Publications.

Hertzog, C., Hultsch, D. F., and Dixon, R. A. (1989). Evidence for the convergent validity of two self-report metamemory questionnaires. *Developmental Psychology, 25*(5), 687-700.

Hoek, J., and Jones, S. C. (2011). Regulation, public health and social marketing: a behaviour change trinity. *Journal of Social Marketing, 1*(1), 32-44.

Holbrook, M. B. (1986). I'm hip: an autobiographical account of some musical consumption experiences. *Advances in Consumer Research, 13*, 614-618.

Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika*, *30*(2), 179-185.

Hsieh, H.-F., and Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277-1288.

Hu, L. t., and Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Eequation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55.

Hughes, J. A., and Sharrock, W. W. (1997). *The philosophy of social research* (3rd ed.): Addison Wesley Longman.

Hughes, M. A., and Garrett, D. E. (1990). Intercoder reliability estimation approaches in marketing: A generalizability theory framework for quantitative data. *Journal of Marketing Research, 27*(2), 185-195.

Hurley, A. E., Scandura, T. A., Schriesheim, C. A., Brannick, M. T., Seers, A., Vandenberg, R. J., and Williams, L. J. (1997). Exploratory and confirmatory factor analysis: Guidelines, issues, and alternatives. *Journal of Organizational Behavior,* 667-683.

Im, S., Bhat, S., and Lee, Y. (2015). Consumer perceptions of product creativity, coolness, value and attitude. *Journal of Business Research, 68*(1), 166-172. doi:10.1016/j.jbusres.2014.03.014

Jackson, D. L., Gillaspy Jr, J. A., and Purc-Stephenson, R. (2009). Reporting practices in confirmatory factor analysis: an overview and some recommendations. *Psychological Methods, 14*(1), 6-23.

Jafari, A., and Goulding, C. (2008). “We are not terrorists!” UK-based Iranians, consumption practices and the “torn self”. *Consumption Markets and Culture, 11*(June), 73-91.

James, W. (1975). *The meaning of truth*: Harvard University Press.

Jarvis, C. B., MacKenzie, S. B., and Podsakoff, P. M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research, 30*(2), 199-218.

Jillian, C. S., Geoffrey, N. S., and Tim, M. (2012). Word of mouth: measuring the power of individual messages. *European Journal of Marketing, 46*(1/2), 237-257. doi:10.1108/03090561211189310

Johnson, R. B., and Onwuegbuzie, A. J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher, 33*(7), 14-26. doi:10.3102/0013189X033007014

Johnson, R. B., Onwuegbuzie, A. J., and Turner, L. A. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research, 1*(2), 112-133. doi:10.1177/1558689806298224

Jordan, J. (2012). *Commune: A case study of social marketing innovation to reduce young adult tobacco*. Paper presented at the International Social Marketing Conference, Brisbane, Australia. http://www.aasm.org.au/wp-content/uploads/2017/06/

Kang, N., Kara, A., Laskey, H., and Seaton, F. (1993). A SAS macro for calculating intercoder agreement in content analysis. *Journal of Advertising, 22*(2), 17-28.

Kapferer, J.-N. (1994). *Strategic brand management: New approaches to creating and evaluating brand equity*: Simon and Schuster.

Kaplan, D. (2004). *The Sage handbook of quantitative methodology for the social sciences*: Sage.

Kara, H. (2015). *Creative research methods in the social sciences: A practical guide*: Policy Press.

Katz, E. (1957). The tow-step flow of communication: An up-to-date report on a hypothesis. *Public Opinion Quarterly, 21*(1), 61-78. Doi:10.1086/266687

Kayande, U., Roberts, J. H., Lilien, G. L., and Fong, D. K. H. (2007). Mapping the bounds of incoherence: How far can you go and how does it affect your brand? *Marketing Science*, *26*(4), 504-513. doi:10.1287/mksc.1060.0246

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing, 57*(1), 1-22. doi:10.2307/1252054

Kirkland, D. E., and Jackson, A. (2009). "We real cool": Toward a theory of black masculine literacies. *Reading Research Quarterly, 44*(3), 278-297. doi:10.1598/RRQ.44.3.3

Klimstra, T. A., Hale III, W. W., Raaijmakers, Q. A., Branje, S. J., and Meeus, W. H. (2010). Identity formation in adolescence: change or stability? *Journal of Youth and Adolescence, 39*(2), 150-162.

Knobil, M. (2002, Autumn 2002). What Makes a Brand Cool? *Market Leader*.

Kothari, C. R. (2004). *Research methodology: Methods and techniques*: New Age International.

Kotler, P., and Armstrong, G. (2010). *Principles of marketing*: Pearson education.

Krosnick, J. A., and Alwin, D. F. (1987). An evaluation of a cognitive theory of response-order effects in survey measurement. *Public Opinion Quarterly, 51*(2), 201-219.

Kuhn, T. S. (1970). *The Structure of Scientific Revolutions, 2nd enl. ed*: University of Chicago Press.

Lanham, R. (2008). *The hipster handbook*: Anchor.

Lassar, W., Mittal, B., and Sharma, A. (1995). Measuring customer-based brand equity. *Journal of Consumer Marketing, 12*(4), 11-19.

Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology, 28*(4), 563-575.

Le Poidevin, R., Andrew, M., Peter, S., and Cameron, R. P. (2009). *The Routledge companion to metaphysics*: Routledge.

Ledesma, R. D., and Valero-Mora, P. (2007). Determining the number of factors to retain in EFA: An easy-to-use computer program for carrying out parallel analysis. *Practical Assessment, Research and Evaluation, 12*(2), 1-11.

Leland, M. J. (2009). *Hip: the history*: Harper Collins.

Lindgren, M. (2013, 12/27/2013 Dec 27). Defining a slippery concept: Coolness. *The Washington Post*.

Liu, W., Sidhu, A., Beacom, A. M., and Valente, T. W. (2017). Social network theory. *The international encyclopedia of media effects*: John Wiley and Sons.

Livingstone, S. (2008). Taking risky opportunities in youthful content creation: teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media and Society, 10*(3), 393-411.

Lombard, M., Snyder-Duch, J., and Bracken, C. C. (2002). Content analysis in mass communication: Assessment and reporting of intercoder reliability. *Human Communication Research, 28*(4), 587-604.

Loureiro, S. M. C., and Lopes, R. (2011). *Characteristics of Cool Brands: The Development of a Scale*. Paper presented at the ANZMAC, Perth, Australia.

Lucia, P., Salvador Del, B.-G., and Philip, J. K. (2017). Measuring integrated marketing communication by taking a broad organisational approach: The firm-wide IMC scale. *European Journal of Marketing, 51*(3), 692-718. doi:10.1108/EJM-08-2015-0587

Lynch Jr, J. G., Netemeyer, R. G., Spiller, S. A., and Zammit, A. (2010). A generalizable scale of propensity to plan: The long and the short of planning for time and for money. *Journal of Consumer Research, 37*(1), 108-128.

MacAdams, L. (2001). *Birth of the cool*. New York: Free Press.

Macionis, J., and Gerber, L. (2010). *Sociology* (7th ed.). Toronto: Pearson Canada.

Maher, J. C. (2005). Metroethnicity, language, and the principle of Cool. *International Journal of the Sociology of Language, 2005*(175/176), 83-102. doi:10.1515/ijsl.2005.2005.175-176.83

Major, C. (1994). *Juba to jive: A dictionary of African-American slang*: Puffin Books.

Majors, R., and Billson, J. M. (1993). *Cool pose: The dilemma of Black manhood in America*: Simon and Schuster.

Malhotra, N. K. (2007). *Marketing research an applied orientation*: Pearson Education India.

Malhotra, N. K., Peterson, M., and Kleiser, S. B. (1999). Marketing research: A state-of-the-art review and directions for the twenty-first century. *Journal of the Academy of Marketing Science, 27*(2), 160-183.

Mangold, W. G., and Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons, 52*(4), 357-365.

Marczyk, G., DeMatteo, D., and Festinger, D. (2005). *Essentials of research design and methodology*: John Wiley and Sons Inc.

Martin, D. M., and Schouten, J. W. (2013). Consumption-driven market emergence. *Journal of Consumer Research, 40*(5), 855-870.

Massara, F., Liu, S. S., and Melara, R. D. (2010). Adapting to a retail environment: Modeling consumer–environment interactions. *Journal of Business Research, 63*(7), 673-681.

Matsunaga, M. (2010). How to factor-analyze your data right: Do's, don'ts, and how-to's. *International Journal of Psychological Research*, *3*(1), 99-110.

McGorry, S. Y. (2000). Measurement in a cross-cultural environment: survey translation issues. *Qualitative Market Research: An International Journal, 3*(2), 74-81.

Menezes, D., and Elbert, N. F. (1979). Alternative semantic scaling formats for measuring store image: an evaluation. *Journal of Marketing Research*, 80-87.

Messick, S. (1995). Validity of psychological assessment: Validation of inferences from persons' responses and performances as scientific inquiry into score meaning. *American Psychologist, 50*(9), 741-749.

Michelle, A., and Philip Holst, R. (2011). Strategic management of network resources: A case study of an ERP ecosystem. *International Journal of Enterprise Information Systems (IJEIS), 7*(2), 18-33. doi:10.4018/jeis.2011040102

Miech, R. A., Johnston, L. D., O'malley, P. M., Bachman, J. G., and Schulenberg, J. E. (2016). *Monitoring the Future national survey results on drug use, 1975-2015: Volume I, Secondary school students*. Institute of Social Resarch.

Miller, R. L., and Brewer, J. D. (2003). *The AZ of social research: A dictionary of key social science research concepts*: Sage.

Moher, D., Liberati, A., Tetzlaff, J., and Altman, D. G. (2010). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *International journal of surgery, 8*(5), 336-341.

Mohiuddin, K. G. B., and Gordon, R. (2016). *Growing up with 'cool'*. Paper presented at the ANZMAC Annual Conference 2016, Christchurch, New Zealand. http://pandora.nla.gov.au/tep/25410

Mohiuddin, K. G. B., Gordon, R., Magee, C., and Lee, J. K. (2016). A conceptual framework of cool for social marketing. *Journal of Social Marketing, 6*(2), 121-143.

Moore, G. C., and Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research*, *2*(3), 192-222.

Morgan, D. L. (2014). Pragmatism as a Paradigm for Social Research. *Qualitative Inquiry, 20*(8), 1045-1053. doi:10.1177/1077800413513733

Morrison, D. G. (1979). Purchase intentions and purchase behavior. *the Journal of Marketing*, 65-74.

Mowen, J. C., and Voss, K. E. (2008). On building better construct measures: Implications of a general hierarchical model. *Psychology and Marketing*, *25*(6), 485-505.

Murdock Jr, B. B. (1962). The serial position effect of free recall. *Journal of Experimental Psychology, 64*(5), 482-488.

Muthén, B., and Kaplan, D. (1985). A comparison of some methodologies for the factor analysis of non-normal Likert variables. *British Journal of Mathematical and Statistical Psychology*, *38*(2), 171-189.

Myers, J. (2004, March 2004). Tweens and cool. *Admap*.

Nairn, A., Griffin, C., and Wicks, P. G. (2008). Children's use of brand symbolism: A consumer culture theory approach. *European Journal of Marketing, 42*(5-6), 627-640. doi:10.1108/03090560810862543

Nancarrow, C., Nancarrow, P., and Page, J. (2002). An analysis of the concept of cool and its marketing implications. *Journal of Consumer Behaviour, 1*(4), 311-322. doi:10.1002/cb.77

Nandan, S. (2005). An exploration of the brand identity–brand image linkage: A communications perspective. *Journal of Brand Management, 12*(4), 264-278.

Newman, J. W. (1957). New Insight, New Progress, For Marketing. *Harvard Business Review, 1957 (November-December)*, 95-102.

Nguyen, H. T., Zhang, Y., and Calantone, R. J. (2018). Brand portfolio coherence: Scale development and empirical demonstration. *International Journal of Research in Marketing*, *35*(1), 60-80. doi:10.1016/j.ijresmar.2017.11.003

Noh, M., Runyan, R., and Mosier, J. (2014). Young consumers' innovativeness and hedonic/utilitarian cool attitudes. *International Journal of Retail and Distribution Management*, *42*(4), 267-280. doi:10.1108/IJRDM-07-2012-0065

Nunnally, J., and Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.

O'Donnell, K. A., and Wardlow, D. L. (2000). A Theory on the Origins of Coolness. *Advances in Consumer Research*, *27*(1), 13-18.

O'Muircheartaigh, C. A., Krosnick, J. A., and Helic, A. (2001). *Middle alternatives, acquiescence, and the quality of questionnaire data*: Irving B. Harris Graduate School of Public Policy Studies, University of Chicago Chicago, USA.

O'connor, B. P. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, 32*(3), 396-402.

Oboler, S. (2005). *The Oxford Encyclopedia of Latinos and Latinas in the United States*: Oxford University Press.

Olson, E. M., Czaplewski, A. J., and Slater, S. F. (2005). Stay Cool. *Marketing Management, 14*(5), 14-17.

Palla, H., Felice, P., and Carramenha, P. (2004). *Cool: The newest factor influencing the youth market in Latin America*. Paper presented at the ESOMAR: Latin America Conference, Mexico City.

Patton, M. Q. (1990). *Qualitative evaluation and research methods*: SAGE Publications, inc.

Plumridge, E. W., Fitzgerald, L. J., and Abel, G. M. (2002). Performing coolness: Smoking refusal and adolescent identities. *Health Education Research, 17*(2), 167-179.

Potter, W. J., and Levine-Donnerstein, D. (1999). Rethinking validity and reliability in content analysis. *Journal of Applied Communication Research, 27,* 258-284.

Pountain, D., and Robins, D. (2000). *Cool rules: Anatomy of an attitude*. London: Reaktion.

Powell, T. C. (2001). Competitive advantage: logical and philosophical considerations. *Strategic management journal, 22*(9), 875-888.

Puri, R. (1996). Measuring and modifying consumer impulsiveness: A cost-benefit accessibility framework. *Journal of Consumer Psychology, 5*(2), 87-113.

Qualtrics Branch Logic. Qualtrics Support. Retrieved from https://www.qualtrics.com/support/survey-platform/survey-module/survey-flow/standard-elements/branch-logic/

Qualtrics Data Export. Qualtrics Support. Retrieved from https://www.qualtrics.com/support/survey-platform/data-and-analysis/data/download-data/export-data-overview/

Qualtrics Question Randomizer. Qualtrics Support. Retrieved from https://www.qualtrics.com/support/survey-platform/survey-module/block-options/question-randomization/

Qualtrics Randomizer. Qualtrics Support. Retrieved from https://www.qualtrics.com/support/survey-platform/survey-module/survey-flow/standard-elements/randomizer/

Rahman, K. (2013). “Wow! It's cool”: the meaning of coolness in marketing. *Marketing Intelligence and Planning, 31*(6), 620-638. doi:10.1108/MIP-09-2012-0094

Rahman, K., and Cherrier, H. (2010). Correlates of cool identity: Humor, need for uniqueness, materialism, status concern and brand consciousness. *Advances in Consumer Research, 37,* 886-888.

Read, J., Fitton, D., Cowan, B., Beale, R., Guo, Y., and Horton, M. (2011). *Understanding and designing cool technologies for teenagers*. Paper presented at the CHI '11 Extended Abstracts on Human Factors in Computing Systems, Vancouver, BC, Canada.

Richie, D. (2003). *The image factory: Fads and fashions in Japan*: Reaktion Books.

Rogers, E. M. (2010). *Diffusion of innovations*: Simon and Schuster.

Rossiter, J. R. (2002). The C-OAR-SE procedure for scale development in marketing. *International Journal of Research in Marketing, 19*(4), 305-335.

Rossiter, J. R. (2011). Marketing measurement revolution: The C-OAR-SE method and why it must replace psychometrics. *European Journal of Marketing, 45*(11/12), 1561-1588.

Roulston, K. (2001). Data analysis and ‘theorizing as ideology’. *Qualitative research*, *1*(3), 279-302.

Rugkåsa, J., Knox, B., Sittlington, J., Kennedy, O., Treacy, M. P., and Abaunza, P. S. (2001). Anxious adults vs. cool children: children's views on smoking and addiction. *Social Science and Medicine, 53*(5), 593-602.

Ruscio, J., and Roche, B. (2012). Determining the number of factors to retain in an exploratory factor analysis using comparison data of known factorial structure. *Psychological Assessment, 24*(2), 282-292.

Russell, D., Peplau, L. A., and Cutrona, C. E. (1980). The revised UCLA loneliness scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology, 39*(3), 472-480.

Sahu, P. K. (2013). *Research methodology: A guide for researchers in agricultural science, social science and other related fields*: Springer.

Saldaña, J. (2015). *The coding manual for qualitative researchers*: Sage.

Salkind, N. J. (Ed.) (2010). *Encyclopedia of research design*: Sage.

Saxton, G. (2005). Collections of cool. *Young Consumers, 6*(2), 18-27.

Sayer, A. (2000). *Realism and social science*: Sage.

Sbarbaro, S., Van den Bergh, J., Veris, E., and De Ruyck, T. (2011). *We got a crush on you(th)! involving influential Gen Y'ers from 15 global cities to learn why something is cool*. Paper presented at the ESOMAR: Qualitative, Vienna.

Scheffels, J. (2009). Stigma, or sort of cool: Young adults' accounts of smoking and identity. *European Journal of Cultural Studies, 12*(4), 469-486. doi:10.1177/1367549409342513

Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., and King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research, 99*(6), 323-338.

Schumm, W. R., Paff-Bergen, L. A., Hatch, R. C., Obiorah, F. C., Copeland, J. M., Meens, L. D., and Bugaighis, M. A. (1986). Concurrent and discriminant validity of the Kansas Marital Satisfaction Scale. *Journal of Marriage and the Family*, 381-387.

Schwarz, N., Hippler, H.-J., and Noelle-Neumann, E. (1992). A cognitive model of response-order effects in survey measurement *Context effects in social and psychological research* (pp.187-201): Springer.

Shamseer, L., Moher, D., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., . . . Stewart, L. A. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. *British Medical Journal, 349*. doi: https://doi.org/10.1136/bmj.g7647

Slater, S. F., and Narver, J. C. (2000). The positive effect of a market orientation on business profitability: a balanced replication. *Journal of Business Research, 48*(1), 69-73.

Southgate, N. (2003a). *Coolhunting With Aristotle: Welcome to the hunt*. Paper presented at the Marketing Rsearch Society Annual Conference.

Southgate, N. (2003b). Coolhunting, account planning and the ancient cool of Aristotle. *Marketing Intelligence and Planning, 21*(7), 453-461. doi:10.1108/02634500310504304

Spiggle, S. (1994). Analysis and interpretation of qualitative data in consumer research. *Journal of Consumer Research, 21*(3), 491-503.

Sriramachandramurthy, R. (2009). *What's cool? Examining brand coolness and it's consequences.* (3372569 Ph.D.), Southern Illinois University at Carbondale, Ann Arbor. ProQuest Dissertations and Theses Global database.

Stake, R. E. (1995). *The art of case study research*: Sage.

Stern, B. B. (2006). What does brand mean? Historical-analysis method and construct definition. *Journal of the Academy of Marketing Science, 34*(2), 216-223.

Stewart, I. (2008). *Circuits of cool: how technology is changing young attitudes and behaviours*. Paper presented at the ESOMAR: Asia Pacific Conference, Singapore.

Stöber, J. (2001). The Social Desirability Scale-17 (SDS-17): Convergent validity, discriminant validity, and relationship with age. *European Journal of Psychological Assessment, 17*(3), 222-232.

Strauss, A., and Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*: Sage Publications, Inc.

Stuckey, H. (2015). The second step in data analysis: Coding qualitative research data. *Journal of Social Health and Diabetes, 3*(1), 7-10. doi:10.4103/2321-0656.140875

Suchting, W. (2006). Epistemology. *Historical Materialism, 14*(3), 331-345.

Sundar, S. S., Tamul, D. J., and Wu, M. (2014). Capturing "cool": Measures for assessing coolness of technological products. *International Journal of Human-Computer Studies, 72*(2), 169-180. doi:10.1016/j.ijhcs.2013.09.008

Sung, Y., and Tinkham, S. F. (2005). Brand personality structures in the United States and Korea: Common and culture-specific factors. *Journal of Consumer Psychology, 15*(4), 334-350.

Tabachnik, B., and Fidell, L. (2007). Using multivariate statistics. Boston. *MA: Pearson*.

Tavakol, M., and Zeinaloo, A. (2004). Medical research paradigms: positivistic inquiry paradigm versus naturalistic inquiry paradigm. *Journal of Medical Education, 5*(2), 75-80.

Thompson, R. F. (1973). An Aesthetic of the Cool. *African Arts, 7*(1), 41-91. doi:10.2307/3334749

Thompson, R. F. (1983). *Flash of the spirit*. New York: Random House.

Thomson, M., MacInnis, D. J., and Park, C. W. (2005). The ties that bind: Measuring the strength of consumers' emotional attachments to brands. *Journal of Consumer Psychology, 15*(1), 77-91.

Tinsley, H. E., and Tinsley, D. J. (1987). Uses of factor analysis in counseling psychology research. *Journal of Counseling Psychology, 34*(4), 414-424.

Tu, L., Khare, A., and Zhang, Y. (2012). A short 8-item scale for measuring consumers' local–global identity. *International Journal of Research in Marketing, 29*(1), 35-42. doi:https://doi.org/10.1016/j.ijresmar.2011.07.003

Valette-Florence, P., Guizani, H., and Merunka, D. (2011). The impact of brand personality and sales promotions on brand equity. *Journal of Business Research, 64*(1), 24-28. doi:10.1016/j.jbusres.2009.09.015

Van Selm, M., and Jankowski, N. W. (2006). Conducting online surveys. *Quality and Quantity, 40*(3), 435-456.

Vandecasteele, B., and Geuens, M. (2010). Motivated consumer innovativeness: Concept, measurement, and validation. *International Journal of Research in Marketing, 27*(4), 308-318. doi:10.1016/j.ijresmar.2010.08.004

Velicer, W. F. (1976). Determining the number of components from the matrix of partial correlations. *Psychometrika, 41*(3), 321-327.

Velicer, W. F., Eaton, C. A., and Fava, J. L. (2000). Construct explication through factor or component analysis: A review and evaluation of alternative procedures for determining the number of factors or components. In R. D. Goffin and E. Helmes (eds) *Problems and solutions in human assessment* (pp. 41-71): Springer.

Vernon, R., Cope, M., and Worku, G. (1997). Russia and Ukraine-relations cool. *International Sugar Journal (Beet Sugar Edition)(United Kingdom)*.

Warren, C., and Campbell, M. C. (2014). What Makes Things Cool? How Autonomy Influences Perceived Coolness. *Journal of Consumer Research, 41*(2), 543-563. doi:10.1086/676680

Warrington, T. (2010). Chasing Cool. Standing out in today's cluttered marketplace. *Journal of Consumer Marketing, 27*(1), 88-89. doi:10.1108/07363761011013001

Weber, M. (2017). *Methodology of social sciences*: Routledge.

Whylly, L. R. (2008, April 2008). Make an impression. *ANA*.

Wieland, A., Durach, C. F., Kembro, J., and Treiblmaier, H. (2017). Statistical and judgmental criteria for scale purification. *Supply Chain Management: An International Journal*, *22*(4), 321-328.

Williams, B., Onsman, A., and Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine, 8*(3). Retrieved from https://ajp.paramedics.org/index.php/ajp/article/view/93/90

Wong, F., Huhman, M., Asbury, L., Bretthauer-Mueller, R., McCarthy, S., Londe, P., and Heitzler, C. (2004). VERB™—a social marketing campaign to increase physical activity among youth. *Preventing Chronic Disease, 1*(3), A10. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1253475/

Wooten, D. B. (2006). From labeling possessions to possessing labels: Ridicule and socialization among adolescents. *Journal of Consumer Research, 33*(2), 188-198.

Worthington, R. L., and Whittaker, T. A. (2006). Scale Development Research. *The Counseling Psychologist, 34*(6), 806-838. doi:10.1177/0011000006288127

Wright, K. B. (2005). Researching Internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services. *Journal of Computer-Mediated Communication, 10*(3), JCMC1034. doi:10.1111/j.1083-6101.2005.tb00259.x

Yoo, B., and Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research, 52*(1), 1-14. doi:10.1016/S0148-2963(99)00098-3

Yoo, B., Donthu, N., and Lee, S. (2000). An examination of selected marketing mix elements and brand equity. *Journal of the Academy of Marketing Science, 28*(2), 195-211.

Zemack-Rugar, Y., Corus, C., and Brinberg, D. (2012). The 'response-to-failure' scale: Predicting behavior following initial self-control failure. *Journal of Marketing Research (JMR), 49*(6), 996-1014. doi:10.1509/jmr.10.0510

Zucker, D., Hopkins, R. S., Sly, D. F., Urich, J., Kershaw, J. M., and Solari, S. (2000). Florida's" truth" campaign: a counter-marketing, anti-tobacco media campaign. *Journal of Public Health Management and Practice: JPHMP, 6*(3), 1-6.

Zwick, W. R., and Velicer, W. F. (1986). Comparison of five rules for determining the number of components to retain. *Psychological Bulletin, 99*(3), 432-442.

APPENDICES

Appendix A

Table A.1.

Pattern matrix produced by EFA conducted on 36-item initial CoB scale.

Items	*Factor loadings*			
	Dimension 1 (Dynamism)	*Dimension 2 (Composure)*	*Dimensions 3 (Subversion)*	*Dimension 4 (Confidence)*
[BRAND X] is ahead of the game.	**.817**	.059	.071	-.067
[BRAND X] sets trends.	**.776**	-.105	.126	.013
[BRAND X] is innovative.	**.730**	-.019	-.027	.114
[BRAND X] is fresh.	**.686**	.147	.003	.090
[BRAND X] is extraordinary.	**.607**	.060	.120	.123
[BRAND X] is vibrant.	**.526**	.008	.085	.271
[BRAND X] is aesthetically pleasing. [a]	.479	.042	.004	.302
[BRAND X] is bold. [a]	.432	-.131	.194	.289
[BRAND X] is dominant. [a]	.417	.010	.126	.254
[BRAND X] is effortless. [a]	.412	.271	-.031	.199
[BRAND X] is interactive. [a]	.411	.117	.061	.206
[BRAND X] is fearless. [a]	.403	-.061	.257	.261
[BRAND X] is composed. [a]	.389	.368	-.103	.241
[BRAND X] is fun. [a]	.346	.013	.196	.340
[BRAND X] is modest.	.266	**.724**	-.160	.057
[BRAND X] is reserved.	-.156	**.703**	.093	.130
[BRAND X] is low-profile.	-.192	**.682**	.100	-.123
[BRAND X] is under-stated.	.045	**.661**	-.009	.013
[BRAND X] is sincere. [a]	.313	.432	-.003	.194
[BRAND X] is transient. [a]	.287	.360	.331	-.026
[BRAND X] is autonomous. [a]	.174	.265	.261	.180
[BRAND X] is hedonistic.	-.171	.013	**.622**	.127
[BRAND X] is unconventional.	.036	.009	**.552**	.038
[BRAND X] is rebellious.	.301	-.009	**.549**	-.043
[BRAND X] is subversive.	.105	.310	**.543**	-.048
[BRAND X] is evasive. [a]	.151	.341	.453	-.146
[BRAND X] is indulgent. [a]	.356	-.096	.398	.143
[BRAND X] is a risk-taker. [a]	.252	-.166	.382	.223
[BRAND X] deviates from the norm. [a]	.364	-.106	.377	.190
[BRAND X] is proud.	-.008	.004	-.007	**.771**
[BRAND X] is self-assured.	-.105	-.004	.172	**.745**
[BRAND X] is passionate.	.157	.015	.057	**.616**
[BRAND X] is direct.	.090	.082	-.005	**.595**
[BRAND X] is authentic. [a]	.317	.055	-.155	.485
[BRAND X] has character. [a]	.404	-.039	.062	.430
[BRAND X] is refined. [a]	.179	.252	.067	.331

Note: Factor analysis uses Principal Axis Factoring and Direct Oblimin rotation. $N = 518$.

[a] Items excluded from the purified scale based on: (a) low loading i.e. the highest loading of <.4 across factors, or (b) cross-loading on factors i.e. the difference between its two highest loadings was <.2.

Appendix B

Table B.1.

Associations (139) of cool from literature after document analysis

1.	Aesthetic	2.	Evasive	3.	Luxury	4.	Respected
5.	Ahead of the game	6.	Exciting	7.	Magnetic	8.	Responsible
9.	Anti-commercial	10.	Exclusive	11.	Mature	12.	Risk-taking
13.	Anti-exploitation	14.	Expensive	15.	Mysterious	16.	Sarcastic
17.	Attention-grabbing	18.	Extra-ordinary	19.	Natural (appearance)	20.	Secluded
21.	Attractive	22.	Eye-catching	23.	New	24.	Self-assured
25.	Authentic	26.	Family-oriented	27.	Niche	28.	Self-development
29.	Available for everyone	30.	Fashionable	31.	No limits	32.	Self-expression
33.	Avoids attention	34.	Fearless	35.	No rules	36.	Separatist
37.	Beautiful	38.	Fresh	39.	Nonconformist	40.	Sexually permissive
41.	Bold	42.	Fun	43.	Not for everyone	44.	Show-off
45.	Boutique	46.	Gentle	47.	Not obvious	48.	Side-stepping
49.	Bright	50.	Genuine	51.	Novelty-oriented	52.	Simple
53.	Calm	54.	Good quality	55.	Obsessive	56.	Sincere
57.	Character	58.	Happy	59.	Older	60.	Smart
61.	Classy	62.	Hard to get	63.	Open	64.	sociable
65.	Clever	66.	Hedonistic	67.	Original	68.	Social justice
69.	Composed	70.	Humorous	71.	Outgoing	72.	Spontaneous
73.	Confident	74.	Improving on an idea	75.	Outrageous	76.	Status within sub-group
77.	Conservative	78.	Indifferent	79.	Outspoken	80.	Stylish
81.	Countercultural	82.	individualistic	83.	Overcoming insecurity	84.	Sub-cultural
85.	Creative	86.	Indulgent	87.	Passionate	88.	Subtle
89.	Cute	90.	Informed	91.	Personalised	92.	Subversive
93.	Cutting-edge	94.	Innocent	95.	Popular	96.	Talented
97.	Democratic	98.	Innovative	99.	Positive impact (on society)	100.	Thrill-seeking
101.	Deviating from norm	102.	Intelligent	103.	Professional	104.	Transient
105.	Difficult to understand	106.	Interactive	107.	Progressive	108.	Transparent
109.	does not try too hard	110.	Interesting	111.	Prosocial	112.	Trend-setting
113.	Doing the right thing	114.	Ironic	115.	Proud	116.	Unconventional
117.	Dominating	118.	Irreverent	119.	Purposeful	120.	Unique
121.	Edgy	122.	Items	123.	Quiet	124.	Unusual
125.	Effortless	126.	Knowledgeable	127.	Quirky	128.	Weird
129.	Elegant	130.	Laid back	131.	Rebellious	132.	Well-known
133.	Empowerment	134.	Loud	135.	Refined	136.	Witty
137.	Enjoyable	138.	Low-profile	139.	Reserved		

Appendix B (Continued)

Table B.2.

Associations (57) included in conceptual framework

1. Unconventional	2. Countercultural	3. Non-conformist	4. Rebellious
5. Extraordinary	6. Fresh	7. Innovative	8. Creative
9. Exclusive	10. Niche	11. Separatist	12. Individualist
13. Unique	14. Authentic	15. Anti-commercial	16. Personalised
17. Improvised	18. Self-esteem oriented	19. Sexually permissive	20. Humorous
21. Interactive	22. Autonomous	23. Genuine	24. Sincere
25. Purposeful	26. Composed	27. Irreverent	28. Confident
29. Hedonistic	30. Trend-setting	31. Novelty oriented	32. Transient
33. Spontaneous	34. Unpredictable	35. Indulgent	36. Thrill-seeking
37. Risk-taking	38. Substance abuse	39. Pro-social justice	40. Democratic
41. Anti-exploitation	42. Overcoming insecurity	43. Self-development	44. Empowerment
45. Calm	46. Low-profile	47. Subtle	48. Mysterious
49. Ironic	50. Difficult to understand	51. Interesting	52. Fun
53. Good quality	54. Aesthetic	55. Fashionable	56. Provides status
57. popular			

Table B.3.

Considered items for brand cool scale (83) after consolidating generated items from qualitative interviews

1. Ahead of the game	2. Refined	3. Attractive	4. Different
5. Effortless	6. Fearless	7. Modest	8. Reserved
9. Understated	10. Subversive	11. Evasive	12. Proud
13. Self-assured	14. Deviating from norm	15. Passionate	16. Direct
17. Has character	18. Breaks the rules	19. Outspoken	20. Bold
21. Youthful	22. Intelligent	23. Dominant	24. Vibrant
25. Original	26. Distant	27. Good quality	28. Fun
29. Unconventional	30. Countercultural	31. Non-conformist	32. Rebellious
33. Extraordinary	34. Fresh	35. Innovative	36. Creative
37. Exclusive	38. Niche	39. Separatist	40. Individualist
41. Unique	42. Authentic	43. Anti-commercial	44. Personalised
45. Improvised	46. Self-esteem oriented	47. Sexually permissive	48. Humorous
49. Interactive	50. Autonomous	51. Genuine	52. Sincere
53. Purposeful	54. Composed	55. Irreverent	56. Confident
57. Hedonistic	58. Trend-setting	59. Novelty oriented	60. Transient
61. Spontaneous	62. Unpredictable	63. Indulgent	64. Thrill-seeking
65. Risk-taking	66. Substance abuse	67. Pro-social justice	68. Democratic
69. Anti-exploitation	70. Overcoming insecurity	71. Self-development	72. Empowerment
73. Calm	74. Low-profile	75. Subtle	76. Mysterious
77. Ironic	78. Difficult to understand	79. Interesting	80. Aesthetic
81. Fashionable	82. Provides status	83. Popular	

Appendix C

Sample of attribute grouping
(Thematic analysis stage-1)

Themes	*Attributes*	*Sources*
Autonomy	Autonomy, counterculture, outside mainstream, unconventional, different	Le Bigot, 1996; Warren and Campbell, 2014; Fuller and Thygesen, 1997; Southgate, 2003; Nancarrow *et al.*, 2002; de Chenecey, 2003; Rahman and Cherrier, 2010; Belk *et al.*, 2010; Dar-Nimrod *et al.*, 2012; Myers, 2004; Palla *et al.*, 2004; Olson *et al.*, 2005; Saxton, 2005; Kirkland and Jackson, 2009; Gerber and Geiman, 2012; Im *et al.*, 2015
Separatist	Separatist, anti-social, distance, cult, exclusive, niche, sub-groups, peer-groups, detached	Nancarrow *et al.*, 2002; Read *et al.*, 2011; O'Donnel and Wordlow, 2000; Knobil and Leader, 2002; Le Bigot, 1996; Fuller and Thygesen, 1997; Gurrieri, 2009; Kirkland and Jackson, 2009; Gerber and Geiman, 2012; Olson *et al.*, 2005; Rahman and Cherrier, 2010; Pountain and Robins, 2000; Palla *et al.*, 2004
Irreverence	Irreverence, informal, casual, anti-authority, rebellion, subversion	Knobil and Leader, 2002; Palla *et al.*, 2004; Nancarrow *et al.*, 2002; Belk *et al.*, 2010; Dar-Nimrod *et al.*, 2012; Bird and Tapp, 2008; O'Donnel and Wordlow, 2002; de Chenecey, 2003; Read *et al.*, 2011; Rahman and Cherrier, 2010; Fuller and Thygesen, 1997
Hedonism	Hedonism, indulgence, materialism, spontaneity, unpredictable	Nancarrow *et al.*, 2002; Belk *et al.*, 2010; Dar-Nimrod *et al.*, 2012; Rahman and Cherrier, 2010; Bergh and Behrer, 2011; Sbarbaro *et al.*, 2011; Olson *et al.*, 2005
Aspirational	Aspirational, recognition, motivates others, status, popularity, desirable, trend-setters, style-leaders	Gaskins, 2003; Palla *et al.*, 2004; Le Bigot, 1996; Rahman and Cherrier, 2010; Belk *et al.*, 2010; Dar-Nimrod *et al.*, 2012; O'Donnel and Wordlow, 2000; Myers, 2004; Stateman, 2003; Gerber and Geiman, 2012; De Souza, 1997; Fuller and Thygesen, 1997; Knobil and Leader, 2002
Innovativeness	Innovativeness, creative, innovators	Knobil and Leader, 2002; Rahman, 2013; Nancarrow *et al.*, 2002; Gaskins, 2003; Southgate, 2003; Palla *et al.*, 2004; CoolBrands, n.d.; Saxton, 2005; Read *et al.*, 2011; De Souza, 1997; Bird and Tapp, 2008
Novelty oriented	Novelty, freshness, newness, up-to-date, in touch, ever-transient, dynamic	Fuller and Thygesen, 1997; Im *et al.*, 2015; Nancarrow *et al.*, 2002; Southgate, 2003; Pountain and Robins, 2000; Saxton, 2005; Bird and Tapp, 2008; Palla *et al.*, 2004; Warren and Campbell, 2014
Mystery	Mystery, elusive, irony	Nancarrow *et al.*, 2002; Gerber and Geiman, 2012; Fuller and Thygesen, 1997; Rahman and Cherrier, 2010; Dar-Nimrod *et al.*, 2012
Empowerment	Empowerment, overcoming insecurity, self-development, competence, improvisation, drive for success, commitment, strong	Stateman, 2003; Kirkland and Jackson, 2009; O'Donnel and Wordlow, 2000; Nancarrow *et al.*, 2002; Dar-Nimrod *et al*., 2012; Southgate, 2003; Bergh and Behrer, 2011; Palla *et al.*, 2004; Sbarbaro *et al.*, 2011

Appendix C (Continued)

Themes	*Attributes*	*Sources*
Authenticity	Authenticity, real, honest, transparent, originality	Fuller and Thygesen, 1997; Palla *et al.*, 2004; Sundar *et al.*, 2014; Knobil and Leader, 2002; de Chenecey, 2003; Southgate, 2003; CoolBrands, n.d.; Dar-Nimrod *et al.*, 2012; Sbarbaro *et al.*, 2011; Bergh and Behrer, 2011; Gerber and Geiman, 2012
Expression of self	Expression of self, personalisation, style, customisation, connectivity, interaction, narcissism, self-relevance, self-identification	Stateman, 2003; Saxton, 2005; Gaskins, 2003; Bird and Tapp, 2008; Southgate, 2003; Frank, 1997; Knobil and Leader, 2002; Nancarrow *et al.*, 2002; CoolBrands, n.d.; O'Donnel and Wordlow, 2000; Sbarbaro *et al.*, 2011; Gurrieri, 2009; Bergh and Behrer, 2011; Olson *et al.*, 2005
Need to be extra-ordinary	Extra-ordinary, unique, quality, loud, flashy	Olson *et al.*, 2005; Knobil and Leader, 2002; de Chenecey, 2003; CoolBrands, n.d.; Rahman and Cherrier, 2010; Rahman, 2013; Belk *et al.*, 2010; Sbarbaro *et al.*, 2011; Im *et al.*, 2015; Bergh and Behrer, 2011; O'Donnel and Wordlow, 2000; Nancarrow *et al.*, 2002; Kirkland and Jackson, 2009
Fun and exciting	Fun, exciting, interesting, fun, humour, friendly, happiness, entertaining, thrill-seeking, reckless, intense affective state, risk-taking, sexuality, destructive, illicit, illegal activity	Nancarrow *et al.*, 2002; Belk *et al.*, 2010; Dar-Nimrod *et al.*, 2012; Southgate, 2003 Kirkland and Jackson, 2009; Rahman, 2013;O'Donnel and Wordlow, 2000; Bird and Tapp, 2008; Read *et al.*, 2011; Sbarbaro *et al.*, 2011; Bergh and Behrer, 2011; Saxton, 2005; Rahman and Cherrier, 2010;
Attractiveness	Attractive, eye-catching, aesthetic, fashionable	Rahman, 2013; Dar-Nimrod *et al*., 2012; Southgate, 2003; Nancarrow *et al.*, 2002; Rahman and Cherrier, 2010; Myers, 2004; Saxton, 2005
Confidence	Confidence, self-esteem, self-worth	Dar-Nimrod *et al.*, 2012; Bird and Tapp, 2008; Nancarrow *et al.*, 2002; Belk *et al.*, 2010; O'Donnel and Wordlow, 2000; Gerber and Geiman, 2012, Fuller and Thygesen, 1997
Composure and subtlety	Composure, laid-back, effortlessness, relaxed, subtle, low-profile, sophisticated, wisdom	Southgate, 2003; Kirkland and Jackson, 2009; Rahman, 2013; Dar-Nimrod *et al*., 2012; Belk *et al.*, 2010; Knobil and Leader, 2002; Nancarrow *et al.,* 2002; Olson *et al.*, 2005
Pro-social-justice	Social justice, pro-life, democracy, purpose, anti-exploitation, alter-globalisation, reason, unselfish, anti-commercialisation	Southgate, 2003; Warren and Campbell, 2014; de Chenecey, 2003; Belk *et al.*, 2010; Pountain and Robins, 2000; Palla *et al.*, 2004

Appendix D

Samples of developed thematic maps
(Thematic analysis stage-2)

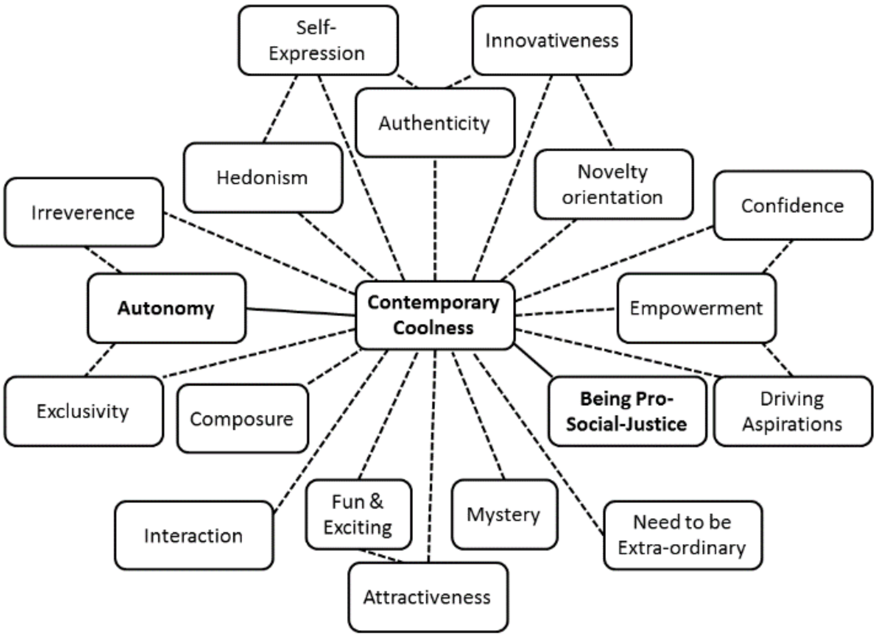

Figure B1: Sample of developed thematic map

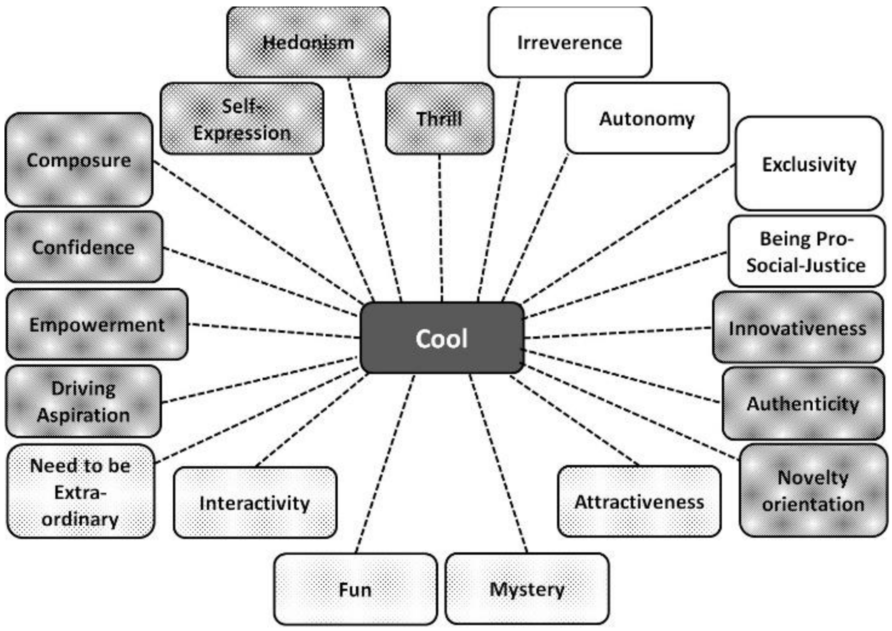

Figure B2: Sample of developed thematic map

Appendix D (Continued)

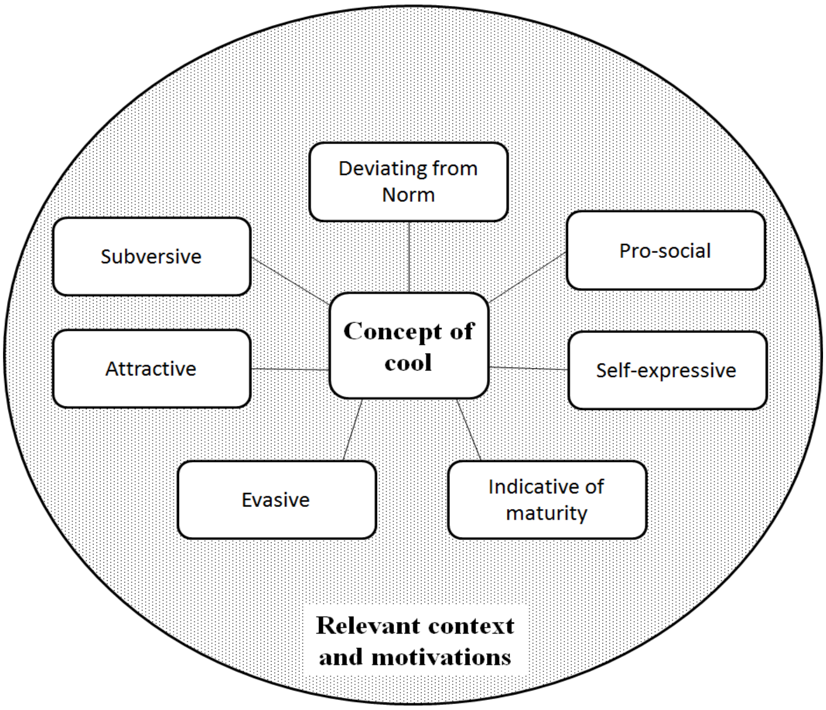

Figure B3: Sample of developed thematic map

Appendix E

Participant information and consent form

Department of Marketing and Management
Faculty of Business and Economics
MACQUARIE UNIVERSITY NSW 2109
Phone: +61 (0)2 9850 8559
Email: ross.gordon@ mq.edu.au
Supervisor's Name and Title: Dr Ross Gordon

MACQUARIE University SYDNEY·AUSTRALIA

Participant Information and Consent Form

Name of Project: Cool Brands.

You are cordially invited to participate in a research that will contribute to the understanding brand coolness, i.e. what it means when a brand is considered cool. The findings of the research may help develop guidelines for influencing consumers in socially beneficial behaviour. Your valuable input in the research can will assist in developing these guidelines.

The research also contributes to meeting the requirements for the PhD degree of Mr. Khondker Galib B Mohiuddin, a research student in the department of Marketing and Management of Macquarie University (Email: khondker-galib-b-.mohiuddin @students.mq.edu.au). You are most welcome to communicate to the research student or his supervisor Dr. Ross Gordon (Email: ross.gordon@mq.edu.au) of the Department of Marketing and Management in Macquarie University regarding any queries that you may have in relation to this research.

If you decide to participate, you will be asked to participate in a one-hour discussion only once. The discussion will seek your views on cool trends, and coolness in objects and brands. The research requires that the discussion is recorded using an audio-recording device. Participation in this study is entirely voluntary: you are not obliged to participate, and if you decide to participate, you are free to withdraw at any time without having to give a reason and without consequence.

Any information or personal details gathered in the course of the study are confidential, except as required by law. The collected data will not be made available to anyone outside the research team, and no individual will be identified in any publication of the results. The researcher would like to share a summary of the data collected from the discussions with you through email. Please provide your email address that is to be used for this purpose. If you choose not to be contacted any further, please indicate so, and do not provide your email address.

(Please see next page)

Appendix E (Continued)

I, ___________________________________ have read and understand the information above and any questions I have asked have been answered to my satisfaction. I agree to participate in this research, knowing that I can withdraw from further participation in the research at any time without consequence. I have been given a copy of this form to keep.

(Please tick one option below.)

☐ I would like to receive a summary of the data collected from the discussions in the following email address: ____ .

☐ I choose not to be contacted any further.

Participant's Name:
(Block letters)

Participant's Signature:

Date:

Investigator's Name: KHONDKER GALIB B MOHIUDDIN

Investigator's Signature:

Date:

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics and Integrity (telephone (02) 9850 7854; email ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

(End of form)

Appendix F

Expert interview guide

Project title:	Cool Brands
PhD Student:	Khondker Galib B Mohiuddin
Supervisor:	Dr Ross Gordon

Recruitment

The potential participants will be experts on either of: brand marketing, advertising, consumer behaviour and research, and social marketing. Experts from existing networks of the PhD student and his supervisor will be initially invited for participation. The PhD student will use his MBA alumni network from Melbourne Business School and network of acquaintances in different universities to find experts on brand marketing and/or social marketing. The supervisor will provide potential participants from his networks in academia and social marketing consulting. If required, snowballing from these networks will help recruit more experts. Experts will be invited through email and/or phone to participate, and will be recruited if the experts provide consent in response to the invitation.

Venue and Scheduling

The venue and schedule of the interview will be finalized based on the convenience of the expert. The potential venues may include the expert's office, restaurants near the expert's office, or may involve interviewing online using Skype or other teleconferencing facility.

Introduction and Consent

The researcher will introduce himself and ask the expert to complete Participant Information and Consent form, and ask the expert if s/he requires any further information on the research or ethical issues. The researcher will initiate the interview once the signed consent forms are returned.

Recording

The researcher will seek permission from the expert to turn the audio-recorder 'on', and will start recording upon her/his consent.

Discussions

The researcher will initiate the discussion with the following questions:

- In your opinion, what kind of brand strategies can associate coolness with brands?
- Name a brand that you consider cool?
- What characteristics make it cool?
- Can you please list the characteristics in the provided form? (hand out the 'free association' survey)
- Do any cool brand possess these characteristics?
- What are the characteristics of a brand to be perceived as cool by consumers?
- Can you please list these characteristics? (hand out the 'direct elicitation' survey)

If characteristics mentioned in the discussion are unclear, the researcher will note them for probing and clarification later. The expert interviews are expected to be explorative. The researcher will not interrupt or probe the expert as long as the discussion remains relevant to the research objective.

Member check and closing the interview

The researcher will close the discussion based on either a clear indication by the expert, or if the expert's body language shows discomfort or unwillingness to continue. The researcher will summarize the discussions, and seek permission to email a summary of discussions to the expert later for validation. The researcher will notify the expert about turning the audio-recorder 'off', thank the expert for participation and hand out the gift cards/vouchers.

(please see next page)

Appendix F (Continued)

Materials and supplies for expert interview
Participant Information and Consent form (one copy for the researcher), Expert Interview Guide, Audio-recording device, Notebook and pen for note-taking.

(End of guide)

Free association task

1. Please name a brand that you consider cool. ____

2. Please list the characteristics that make this brand cool.

________________________ __________________________ ________________________

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Direct elicitation task

1. Please list the characteristics that you believe a cool brand should have.

________________________ __________________________ ________________________

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Appendix G

Screening questionnaire for consumer focus group discussions

Screening questionnaire for recruitment of consumers

You are invited to participate in a discussion with a few other participants on 'cool' brands. Please read the following questions and please tick the one most appropriate to describe you.

1. Is your age within 18 to 30 years?
□ Yes □ No

2. Have you completed HSC or year-12 of schooling?
□ Yes □ No

3. Do you consider your emotional intelligence above average?
□ Yes □ No

4. Do you keep yourself updated on the latest trends in electronic gadgets, fashion, music, movies, or cool hangouts?
□ Yes □ No

5. Do you often discuss with your friends on and latest trends mentioned above?
□ Yes □ No

6. Do/would your friends consider you trendy?
□ Yes □ No

7. Would you consider yourself a person with a lot of friends?
□ Yes □ No

8. Do the people you work with consider you as a friend?
□ Yes □ No

9. Do your friends often seek your opinion for purchases they intend to make?
□ Yes □ No

10. Do you have friends outside your locality or from a different culture?
□ Yes □ No

11. Do you regularly follow any of the creative sectors (e.g. Music, Arts, Painting, Theatre, Photography, Movies, etc.)?
□ Yes □ No

12. Would you describe your profession as student/ aspiring artist/ aspiring musician?
□ Yes □ No
Please specify: ______________________________

(Please see next page)

Appendix G (Continued)

13. Have you visited any country outside the UK, the USA, Canada and New Zealand?
□ Yes □ No

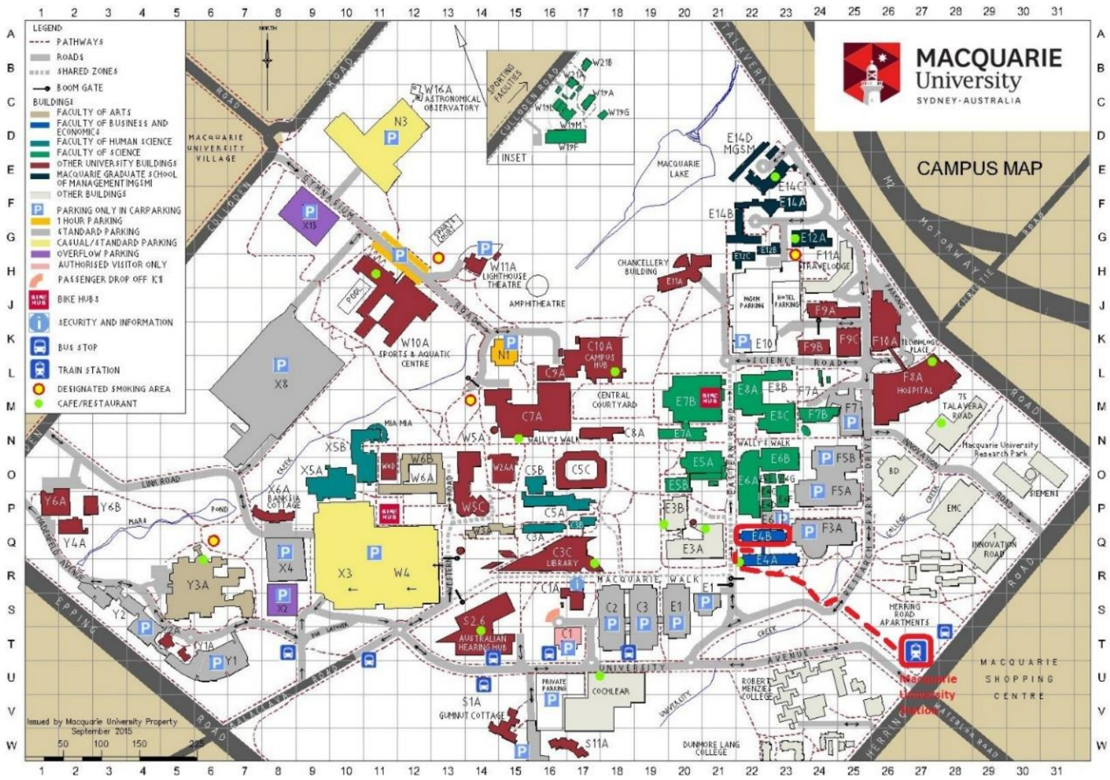
14. Do you participate in thrilling leisure activities or sports (e.g. Surfing, spear-fishing, skateboarding, mountain biking, roller-blading, drag racing with cars or bikes, sky-diving, para-gliding, etc.)?
□ Yes □ No
Please specify: ________________________________

(End of questionnaire)

Appendix H

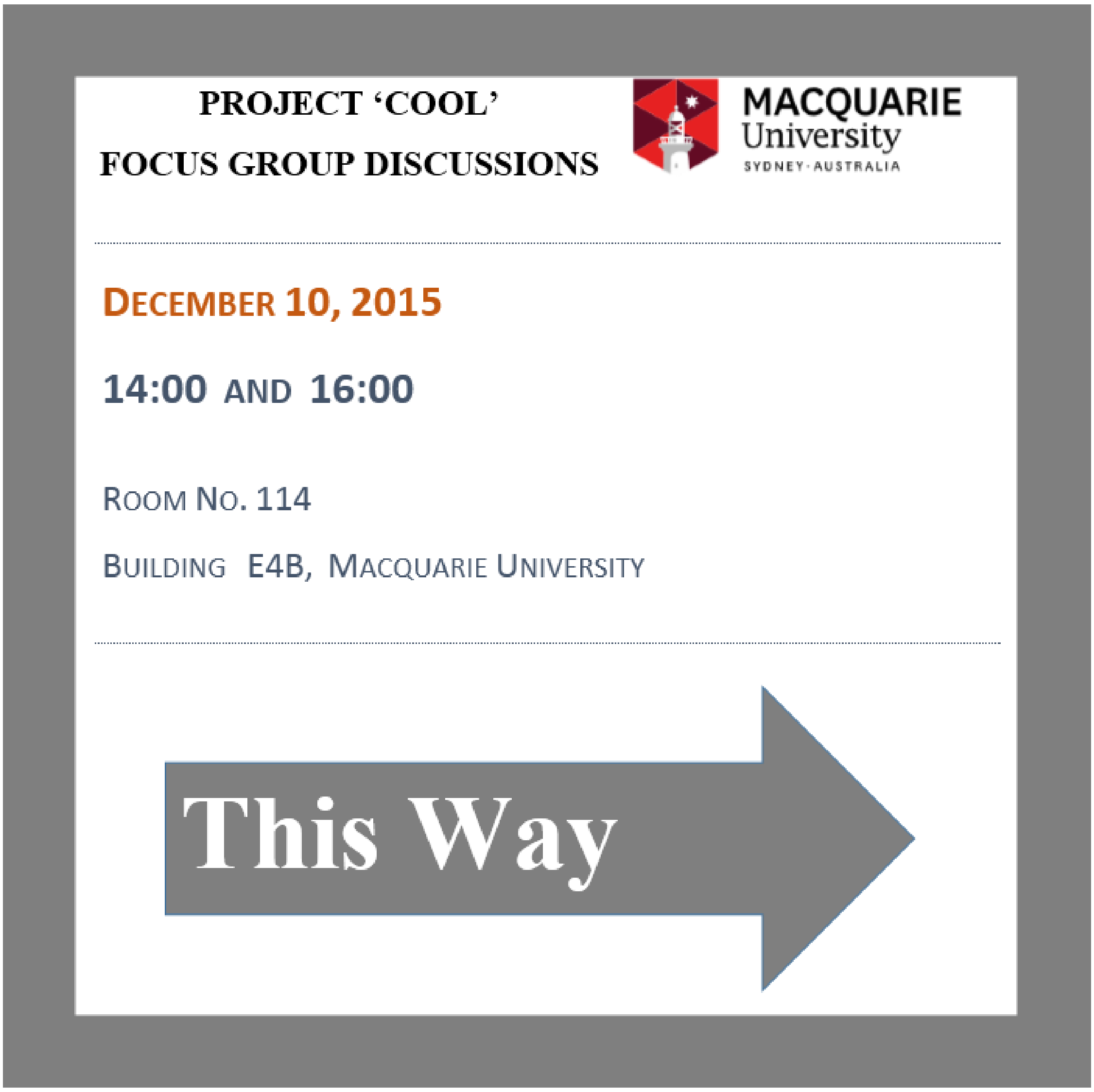
Directional map for focus group discussions

(Provided to participants during recruitment)



Appendix J

Sample of directional poster for consumer discussion venue



Appendix K

Consumer Focus Group Discussion Guide

Project title:	Cool Brands
PhD Student:	Khondker Galib B Mohiuddin
Supervisor:	Dr Ross Gordon

Venues and Schedule
According to finalised schedule and booking, the venue will be one of room 114, 116, and 214 of Building E4B, Macquarie University. The venue will be inspected prior to conducting group discussion. Participants will be provided a map to the venue, the schedule, the contact phone number and email address of the researcher during recruitment.

Introduction and Consent
The researcher will introduce himself, the research, and discuss the consent form. The consent forms will be handed out, and the researcher will initiate the discussion once the signed consent forms are returned.

About the research
"This research seeks to understand brand coolness, that is, what it means when a brand is considered cool. The findings of the research may help develop guidelines for influencing consumers in socially beneficial behaviour. Your valuable input in the research will assist in developing these guidelines."

Recording
The researcher will seek permission from the participants to turn the audio-recorder 'on', and start recording upon participant consent. The researcher will take short notes about the venue and the participants during the discussions.

Discussions
The researcher will initiate the discussion with a few questions:
- What does it mean for something or someone to be cool?
- What makes cool desirable?
- What are the characteristics that can make something or someone cool?

If there are characteristics of cool mentioned by a participant that are unclear, the researcher will note them for probing and clarification later. The researcher will go around the table to seek participation from all the participants. The focus group discussions are expected to be explorative and interpretive. The researcher will not intervene or probe as long as the discussion includes characteristics of coolness. If required, the researcher will turn the discussion towards expression of coolness by asking for clarification on the listed characteristics, or by asking the following questions.
- Name a brand that you consider cool?
- What characteristics make it cool?
- Can you please list the characteristics in the provided form? (hand out the 'free association' survey)
- Does any cool brand possess these characteristics?
- Can you please list these characteristics? (hand out the 'direct elicitation' survey)
- Are there brands that can allow identification of a person as cool?
- Can an object or a person be perceived as cool and uncool by different groups at the same time?
- Are there common characteristics of cool that is accepted by everyone?
- What did you perceive as cool when you were in high school?
- Is this different from what you perceive as cool now?
- (If the response is "yes") How is your perceptions of cool different from your perception in high school?

(Please see next page)

Appendix K (Continued)

Member check and closing the discussions
The researcher will close the discussion if the body language of participants shows discomfort or unwillingness to continue, or if the researcher identifies that the discussion is becoming repetitive. The researcher will summarize the discussions, and seek permission to email a summary of discussions to the participants later for validation. The researcher will notify the participants about turning the audio-recorder 'off', thank the expert for participation and hand out the gift cards/vouchers.

Materials and supplies for focus groups

- Participant Information and Consent forms, one for each participant (one copy for the researcher)
- Gift cards/vouchers, one for each participant
- Focus Group Discussion Guide
- Audio-recording device
- Notebook and pen for note-taking

(End of guide)

Free association task

1. Please name a brand that you consider cool. ____

2. Please list the characteristic that make this brand cool.

________________________ ________________________ ________________________

________________________ ________________________ ________________________

________________________ ________________________ ________________________

________________________ ________________________ ________________________

________________________ ________________________ ________________________

________________________ ________________________ ________________________

Direct elicitation task

1. Please list the characteristics that you believe a cool brand should have.

________________________ ________________________ ________________________

________________________ ________________________ ________________________

________________________ ________________________ ________________________

________________________ ________________________ ________________________

________________________ ________________________ ________________________

________________________ ________________________ ________________________

Appendix L

Sample of consumer group discussion attendance sheets

The Human Network

Realtime Research is a division of The Human Network

The Human Network Pty Ltd. PO Box 772 Terrigal NSW 2260

Website: www.thn.com.au

PARTICIPANT VALIDATION AND ATTENDANCE FORM

Client:	**Macquarie University**	**THN Project Manager:**	**Nikki van de Scheur**
Please call for attendance enquiries		Contact Number:	**0474 753 361**
THN Job No:	**J0781**	**Date:**	**Monday 7th December 2015**
Group:	**M2**	**Venue:**	**Macquarie University**
Time:	**2pm**	**Venue address:**	**Room 308 / Building E4B. Macquarie University NSW**
Incentive:	**$70 VISA gift card**	**Duration:**	**1 hour**

Participant Validation:

I confirm that I am the participant who has been directly recruited and whose signature appears below.
I acknowledge that any form of payment received by me in return for my participation in this research is accepted as compensation for the time and expenses incurred by me and are wholly of a private and non-business nature.
I give permission for the discussion to be viewed and recorded in any format.
I agree that the responses I gave when recruited were correct and honest.

Time	Participant Name	Participant Signature	ID Shown
1	Alasdair Forrest		Yes / No
2	Brad Mullins		Yes / No
3	Julian Belcastro		Yes / No
4	Milo Ferris	ABSENT	Yes / No
5	Raymond Huynh		Yes / No

I am the researcher and I agree that the attending particpants met the project's specifications. I agree that all participants' names and contact details are to remain the property of The Human Network at all times and cannot be used for further research or contact without authorisation from The Human Network.

To comply with the National Privacy Principles and the Market and Social Research Privacy Code, this completed form MUST be separated from any identifying information and other identifiers associated with the participants whose names appear above.

RESEARCHER'S SIGNATURE:

PLEASE FAX THIS FORM WITHIN 24 HOURS TO: 02 4302 0952 or via email to: shelley@thn.com.au

Appendix L (Continued)

The Human Network

Realtime Research is a division of The Human Network

The Human Network Pty Ltd PO Box 772 Terrigal NSW 2260

Website: www.thn.com.au

PARTICIPANT VALIDATION AND ATTENDANCE FORM

Client:	**Macquarie University**	**THN Project Manager:**	**Nikki van de Scheur**
Please call for attendance enquiries		Contact Number:	**0474 753 361**
THN Job No:	**J0781**	**Date:**	**Thursday 10th December 2015**
Group:	**Mixed 1**	**Venue:**	**Macquarie University**
Time:	**2pm**	**Venue address:**	**Room 308 / Building E4B, Macquarie University NSW**
Incentive:	**$70 VISA gift card**	**Duration:**	**1 hour**

Participant Validation:

I confirm that I am the participant who has been directly recruited and whose signature appears below.

I acknowledge that any form of payment received by me in return for my participation in this research is accepted as compensation for the time and expenses incurred by me and are wholly of a private and non-business nature.

I give permission for the discussion to be viewed and recorded in any format.

I agree that the responses I gave when recruited were correct and honest.

Time	Participant Name	Participant Signature	ID Shown
1	Anastassia Koltchina		Yes / No
2	Gianluca Hayes		Yes / No
3	Hayley Thakkar		Yes / No
4	Natalie Millar		Yes / No
5	Simon Mcdermott		Yes / No

I am the researcher and I agree that the attending participants met the project's specifications. I agree that all participants' names and contact details are to remain the property of The Human Network at all times and cannot be used for further research or contact without authorisation from The Human Network.

To comply with the National Privacy Principles and the Market and Social Research Privacy Code, this completed form MUST be separated from any identifying information and other identifiers associated with the participants whose names appear above.

RESEARCHER'S SIGNATURE: ______________________

PLEASE FAX THIS FORM WITHIN 24 HOURS TO: 02 4302 0952 or via email to: shelley@thn.com.au

Appendix L (Continued)

The Human Network

Resultma Research is a division of The Human Network

The Human Network Pty Ltd: PO Box 712 Terrigal NSW 2260

Website: www.thn.com.au

PARTICIPANT VALIDATION AND ATTENDANCE FORM

Client:	Macquarie University	THN Project Manager:	Nikki van de Scheur
Please call for attendance enquiries		Contact Number:	0474 753 361
THN Job No:	J0781	Date:	Tuesday 1st December 2015
Group:	F3	Venue:	Macquarie University
Time:	4pm	Venue address:	Room 308 / Building E4B, Macquarie University NSW
Incentive:	$70 VISA gift card	Duration:	1 hour

Participant Validation:

I confirm that I am the participant who has been directly recruited and whose signature appears below.
I acknowledge that any form of payment received by me in return for my participation in this research is accepted as compensation for the time and expenses incurred by me and are wholly of a private and non-business nature.
I give permission for the discussion to be viewed and recorded in any format.
I agree that the responses I gave when recruited were correct and honest.

Time	Participant Name	Participant Signature	ID Shown
1	Alice Burke		Yes / No
2	Cynthia Thai		Yes / No
3	Jasmine Delnido		Yes / No
4	Jessica Santosa		Yes / No
5	Philomena Middeldorp		Yes / No

I am the researcher and I agree that the attending participants met the project's specifications. I agree that all participants' names and contact details are to remain the property of The Human Network at all times and cannot be used for further research or contact without authorisation from The Human Network.

To comply with the National Privacy Principles and the Market and Social Research Privacy Code, this completed form MUST be separated from any identifying information and other identifiers associated with the participants whose names appear above.

RESEARCHER'S SIGNATURE: ______________________

PLEASE FAX THIS FORM WITHIN 24 HOURS TO: 02 4302 0952 or via email to: shelley@thn.com.au

Appendix L (Continued)

The Human Network

Realtime Research is a division of The Human Network
The Human Network Pty Ltd: PO Box 772 Terrigal NSW 2260
Website: www.thn.com.au

PARTICIPANT VALIDATION AND ATTENDANCE FORM

Client:	**Macquarie University**	**THN Project Manager:**	**Nikki van de Scheur**
Please call for attendance enquiries		Contact Number:	**0474 753 361**
THN Job No:	**J0781**	**Date:**	**Monday 7th December 2015**
Group:	**M3**	**Venue:**	**Macquarie University**
Time:	**4pm**	**Venue address:**	**Room 308 / Building E4B, Macquarie University NSW**
Incentive:	**$70 VISA gift card**	**Duration:**	**1 hour**

Participant Validation:

I confirm that I am the participant who has been directly recruited and whose signature appears below.
I acknowledge that any form of payment received by me in return for my participation in this research is accepted as compensation for the time and expenses incurred by me and are wholly of a private and non-business nature.
I give permission for the discussion to be viewed and recorded in any format.
I agree that the responses I gave when recruited were correct and honest.

Time	Participant Name	Participant Signature	ID Shown
1	Benjamin Warnock		Yes / No
2	Chris Boyd		Yes / No
3	Dylan Bui		Yes / No
4	Thomas Chailloux		Yes / No
5	Warwick Smith		Yes / No

I am the researcher and I agree that the attending participants met the project's specifications. I agree that all participants' names and contact details are to remain the property of The Human Network at all times and cannot be used for further research or contact without authorisation from The Human Network.

To comply with the National Privacy Principles and the Market and Social Research Privacy Code, this completed form MUST be separated from any identifying information and other identifiers associated with the participants whose names appear above.

RESEARCHER'S SIGNATURE:

PLEASE FAX THIS FORM WITHIN 24 HOURS TO: 02 4302 0952 or via email to: shelley@thn.com.au

Appendix M

Scales used for Survey 3 to assess convergent, discriminant, and concurrent validity

M.1. Purified brand cool scale (18 items; 1 = strongly disagree, 5 = strongly agree)

M.1.1. Dynamism sub-scale

1. [BRAND X] is ahead of the game.
2. [BRAND X] sets trends.
3. [BRAND X] is innovative.
4. [BRAND X] is fresh.
5. [BRAND X] is extraordinary.
6. [BRAND X] is vibrant.

M.1.2. Composure sub-scale

7. [BRAND X] is modest.
8. [BRAND X] is reserved.
9. [BRAND X] is low-profile.
10. [BRAND X] is under-stated.

M.1.3. Subversion sub-scale

11. [BRAND X] is hedonistic.
12. [BRAND X] is unconventional.
13. [BRAND X] is rebellious.
14. [BRAND X] is subversive.

M.1.4. Confidence sub-scale

15. [BRAND X] is proud.
16. [BRAND X] is self-assured.
17. [BRAND X] is passionate.
18. [BRAND X] is direct.

M.2. Cool of products scale (adapted from Sundar et al., 2014; 15 items; 1 = strongly disagree, 5 = strongly agree)

M.2.1. Subculture sub-scale

1. [BRAND X] makes people who use it different from other people.
2. If I used [BRAND X], it would make me stand apart from others.
3. [BRAND X] helps people who use it stand apart from the crowd.
4. People who use [BRAND X] are unique.
5. People who use [BRAND X] would be considered leaders rather than followers.

M.2.2. Attractiveness sub-scale

6. [BRAND X] is stylish.
7. [BRAND X] is hip.
8. [BRAND X] is on the cutting edge.
9. [BRAND X] is sexy.
10. [BRAND X] is hot.

Appendix M (Continued)

M.2.3. Originality sub-scale

11. [BRAND X] is original.
12. [BRAND X] is unique.
13. [BRAND X] is out of the ordinary.
14. [BRAND X] stands apart from similar products.
15. [BRAND X] is novel.

M.3. Consumer-based brand equity scale (adapted from Yoo et al., 2000; 14 items; 1 = strongly disagree, 5 = strongly agree)

1. It makes sense to buy [BRAND X] instead of any other brand, even if they are the same.
2. Even if another brand has same features as [BRAND X], I would prefer to buy [BRAND X].
3. If there is another brand as good as [BRAND X], I prefer to buy [BRAND X].
4. If another brand is not different from in [BRAND X] in any way, it seems smarter to purchase [BRAND X].
5. The likely quality of [BRAND X] is extremely high.
6. The likelihood that [BRAND X] would be functional is very high.

M.3.1. Brand awareness sub-scale

7. I can recognise [BRAND X] among competing brands.
8. I am aware of [BRAND X].
9. Some characteristics of [BRAND X] come to my mind quickly.
10. I can quickly recall the symbol or logo of [BRAND X].
11. I have difficulty in imagining [BRAND X] in my mind. (reverse scored item)

M.3.2 Brand loyalty sub-scale

12. I consider myself to be loyal to [BRAND X].
13. [BRAND X] would be my first choice.
14. I will not buy other brands if [BRAND X] is available at the store.

M.4. Brand personality scale (adapted from Aaker, 1997; 42 items; "Rate the extent to which the following attributes describle [BRAND X]"; 1 = not at all descriptive, 5 = extremely descriptive)

M.4.1. Sincerity sub-scale

1. Down to earth	2. Honest	3. Wholesome	4. Small town	5. Real
6. Family oriented	7. Sincere	8. Original	9. Cheerful	10. Friendly
11. Sentimental				

M.4.2. Excitement sub-scale

12. Daring	13. Trendy	14. Exciting	15. Spirited	16. Cool
17. Young	18. Imaginative	19. Unique	20. Up-to-date	21. Independent
22. Contemporary				

M.4.3. Competence sub-scale

23. Reliable	24. Hard working	25. Secure	26. Intelligent	27. Technical
28. Corporate	29. Successful	30. Leader	31. Confident	

Appendix M (Continued)

M.4.4. Sophistication sub-scale

32. Upper class 33. Glamorous 34. Good looking 35. Charming 36. Feminine
37. Smooth

M.4.5. Ruggedness sub-scale

38. Outdoorsy 39. Masculine 40. Western 41. Tough 42. Rugged

Appendix N

Syntax and output for Minimum Average Partial (MAP) test

N.1. Syntax for MAP test

```
* Encoding: UTF-8.
correlation  Ahead_of_the_game Sets_trends Innovative Fresh Extraordinary Vibrant Aesthetically_pleasing
Bold
   Dominant Effortless Interactive Fearless Composed Fun Modest Reserved Low_profile Understated
Sincere
   Transient Autonomous Hedonistic Unconventional Rebellious Subversive Evasive Indulgent Risk_taker
Deviates_from_norm
   Proud Self_assured Passionate Direct Authentic Has_character Refined / matrix out
('C:\Users\43830412\MAP\final1.corrmat').

factor var = Ahead_of_the_game Sets_trends Innovative Fresh Extraordinary Vibrant Aesthetically_pleasing
Bold
   Dominant Effortless Interactive Fearless Composed Fun Modest Reserved Low_profile Understated
Sincere
   Transient Autonomous Hedonistic Unconventional Rebellious Subversive Evasive Indulgent Risk_taker
Deviates_from_norm
   Proud Self_assured Passionate Direct Authentic Has_character Refined / matrix out (cor =
'C:\Users\43830412\MAP\final1.corrmat').
MATRIX.
MGET /type= corr / FILE = 'C:\Users\43830412\MAP\final1.corrmat'.

* MAP test computations.
call eigen (cr,eigvect,eigval).
compute loadings = eigvect * sqrt(mdiag(eigval)).
compute nvars = ncol(cr).
compute fm = make(nrow(cr),2,-9999).
compute fm(1,2) = (mssq(cr)-nvars)/(nvars*(nvars-1)).
compute fm4 = fm.
compute fm4(1,2) = (msum(cr and**4)-nvars)/(nvars*(nvars-1)).
loop #m = 1 to nvars - 1.
compute biga = loadings(:,1:#m).
compute partcov = cr - (biga * t(biga)).
compute d = mdiag( 1 / (sqrt(diag(partcov))) ).
compute pr = d * partcov * d.
compute fm(#m+1,2) = (mssq(pr)-nvars)/(nvars*(nvars-1)).
compute fm4(#m+1,2) = (msum(pr and**4)-nvars)/(nvars*(nvars-1)).
end loop.

* identifying the smallest fm value and its location (= # factors).
compute minfm = fm(1,2).
compute nfacts = 0.
compute minfm4 = fm4(1,2).
compute nfacts4 = 0.
loop #s = 1 to nrow(fm).
compute fm(#s,1) = #s -1.
compute fm4(#s,1) = #s - 1.
do if ( fm(#s,2) < minfm ).
compute minfm = fm(#s,2).
```

Appendix N (Continued)

```
compute nfacts = #s - 1.
end if.
do if ( fm4(#s,2) < minfm4 ).
compute minfm4 = fm4(#s,2).
compute nfacts4 = #s - 1.
end if.
end loop.

print /title="Velicer's Minimum Average Partial (MAP) Test:".
print eigval  /title="Eigenvalues" /format "f12.4".
print { fm, fm4(:,2) } /title="Average Partial Correlations"
 /clabels= " " "squared"   "power4" /format "f14.4".
print minfm /title="The smallest average squared partial correlation is"/format "f12.4".
print minfm4/title="The smallest average 4rth power partial correlation is"/format "f12.4".
print nfacts  /title="The Number of Components According to the Original (1976) MAP Test is".
print nfacts4 /title="The Number of Components According to the Revised (2000) MAP Test is".

end matrix.
```

N.2. Output from MAP test

```
Run MATRIX procedure:

MGET created matrix CR.
The matrix has 36 rows and 36 columns.
The matrix was read from the record(s) of row type CORR.

Velicer's Minimum Average Partial (MAP) Test:

Eigenvalues
     14.6857
      2.9719
      1.9357
      1.1165
       .9833
       .9218
       .7924
       .7225
       .6789
       .6662
       .6208
       .6176
       .5687
       .5501
       .5363
       .5265
       .5032
       .4582
       .4487
       .4402
       .4260
```

Appendix N (Continued)

.4171
.4021
.3873
.3800
.3704
.3495
.3335
.3240
.3098
.2959
.2778
.2634
.2518
.2369
.2296

Average Partial Correlations

	squared	power4
.0000	.1603	.0360
1.0000	.0160	.0009
2.0000	.0103	.0003
3.0000	.0079	.0002
4.0000	.0078	.0002
5.0000	.0085	.0003
6.0000	.0091	.0003
7.0000	.0101	.0004
8.0000	.0115	.0005
9.0000	.0130	.0007
10.0000	.0146	.0008
11.0000	.0164	.0010
12.0000	.0180	.0012
13.0000	.0201	.0015
14.0000	.0226	.0019
15.0000	.0252	.0023
16.0000	.0282	.0029
17.0000	.0312	.0034
18.0000	.0349	.0041
19.0000	.0388	.0049
20.0000	.0431	.0060
21.0000	.0481	.0075
22.0000	.0547	.0093
23.0000	.0619	.0113
24.0000	.0696	.0137
25.0000	.0787	.0167
26.0000	.0862	.0196
27.0000	.0955	.0230
28.0000	.1116	.0320
29.0000	.1313	.0431
30.0000	.1520	.0538
31.0000	.1891	.0761
32.0000	.2377	.1152
33.0000	.3208	.1874
34.0000	.4898	.3620
35.0000	1.0000	1.0000

Appendix N (Continued)

```
The smallest average squared partial correlation is
       .0078

The smallest average 4rth power partial correlation is
       .0002

The Number of Components According to the Original (1976) MAP Test is
  4

The Number of Components According to the Revised (2000) MAP Test is
  4

------ END MATRIX -----
```

Appendix P

Syntax and output for Parallel Analysis (PA)

P.1. Syntax for PA

```
* Encoding: UTF-8.

* Parallel Analysis Program For Raw Data and Data Permutations.

* To run this program you need to first specify the data
  for analysis and then RUN, all at once, the commands
  from the MATRIX statement to the END MATRIX statement.

* This program conducts parallel analyses on data files in which
  the rows of the data matrix are cases/individuals and the
  columns are variables;  Data are read/entered into the program
  using the GET command (see the GET command below);  The GET
  command reads an SPSS data file, which can be either the
  current, active SPSS data file or a previously saved data file;
  A valid filename/location must be specified on the GET command;
  A subset of variables for the analyses can be specified by using
  the "/ VAR =" subcommand with the GET statement;  There can be
  no missing values.

* You must also specify:
  -- the # of parallel data sets for the analyses;
  -- the desired percentile of the distribution and random
     data eigenvalues;
  -- whether principal components analyses or principal axis/common
     factor analysis are to be conducted, and
  -- whether normally distributed random data generation or
     permutations of the raw data set are to be used in the
     parallel analyses.

* Permutations of the raw data set can be time consuming;
  Each parallel data set is based on column-wise random shufflings
  of the values in the raw data matrix using Castellan's (1992,
  BRMIC, 24, 72-77) algorithm; The distributions of the original
  raw variables are exactly preserved in the shuffled versions used
  in the parallel analyses; Permutations of the raw data set are
  thus highly accurate and most relevant, especially in cases where
  the raw data are not normally distributed or when they do not meet
  the assumption of multivariate normality (see Longman and Holden,
  1992, BRMIC, 24, 493, for a Fortran version); If you would
  like to go this route, it is perhaps best to (1) first run a
  normally distributed random data generation parallel analysis to
  familiarize yourself with the program and to get a ballpark
  reference point for the number of factors/components;
  (2) then run a permutations of the raw data parallel analysis
  using a small number of datasets (e.g., 100), just to see how long
  the program takes to run; then (3) run a permutations of the raw
  data parallel analysis using the number of parallel data sets that
  you would like use for your final analyses; 1000 datasets are
  usually sufficient, although more datasets should be used if
  there are close calls.
```

Appendix P (Continued)

```
* These next commands generate artificial raw data
  (500 cases) that can be used for a trial-run of
  the program, instead of using your own raw data;
  Just select and run this whole file; However, make sure to
  delete the artificial data commands before attempting to
  run your own data.

set mxloops=9000 printback=off width=80  seed = 1953125.
matrix.

* Enter the name/location of the data file for analyses after "FILE =";
  If you specify "FILE = *", then the program will read the current,
  active SPSS data file; Alternatively, enter the name/location
  of a previously saved SPSS data file instead of "*";
  you can use the "/ VAR =" subcommand after "/ missing=omit"
  subcommand to select variables for the analyses.
GET raw / FILE = * / missing=omit / VAR = Ahead_of_the_game Sets_trends Innovative Fresh
Extraordinary Vibrant Aesthetically_pleasing Bold
   Dominant Effortless Interactive Fearless Composed Fun Modest Reserved Low_profile Understated
Sincere
   Transient Autonomous Hedonistic Unconventional Rebellious Subversive Evasive Indulgent Risk_taker
Deviates_from_norm
   Proud Self_assured Passionate Direct Authentic Has_character Refined.

* Enter the desired number of parallel data sets here.
compute ndatsets = 1000.

* Enter the desired percentile here.
compute percent  = 99.

* Enter either
  1 for principal components analysis, or
  2 for principal axis/common factor analysis.
compute kind = 2 .

* Enter either
  1 for normally distributed random data generation parallel analysis, or
  2 for permutations of the raw data set.
compute randtype = 2.

****************** End of user specifications. ******************

compute ncases   = nrow(raw).
compute nvars    = ncol(raw).

* principal components analysis and random normal data generation.
do if (kind = 1 and randtype = 1).
compute nm1 = 1 / (ncases-1).
compute vcv = nm1 * (sscp(raw) - ((t(csum(raw))*csum(raw))/ncases)).
compute d = inv(mdiag(sqrt(diag(vcv)))).
compute realeval = eval(d * vcv * d).
compute evals = make(nvars,ndatsets,-9999).
loop #nds = 1 to ndatsets.
compute x = sqrt(2 * (ln(uniform(ncases,nvars)) * -1) ) and*
           cos(6.283185 * uniform(ncases,nvars) ).
```

Appendix P (Continued)

```
compute vcv = nm1 * (sscp(x) - ((t(csum(x))*csum(x))/ncases)).
compute d = inv(mdiag(sqrt(diag(vcv)))).
compute evals(:,#nds) = eval(d * vcv * d).
end loop.
end if.

* principal components analysis and raw data permutation.
do if (kind = 1 and randtype = 2).
compute nm1 = 1 / (ncases-1).
compute vcv = nm1 * (sscp(raw) - ((t(csum(raw))*csum(raw))/ncases)).
compute d = inv(mdiag(sqrt(diag(vcv)))).
compute realeval = eval(d * vcv * d).
compute evals = make(nvars,ndatsets,-9999).
loop #nds = 1 to ndatsets.
compute x = raw.
loop #c = 1 to nvars.
loop #r = 1 to (ncases -1).
compute k = trunc( (ncases - #r + 1) * uniform(1,1) + 1 )  + #r - 1.
compute d = x(#r,#c).
compute x(#r,#c) = x(k,#c).
compute x(k,#c) = d.
end loop.
end loop.
compute vcv = nm1 * (sscp(x) - ((t(csum(x))*csum(x))/ncases)).
compute d = inv(mdiag(sqrt(diag(vcv)))).
compute evals(:,#nds) = eval(d * vcv * d).
end loop.
end if.

* PAF/common factor analysis and random normal data generation.
do if (kind = 2 and randtype = 1).
compute nm1 = 1 / (ncases-1).
compute vcv = nm1 * (sscp(raw) - ((t(csum(raw))*csum(raw))/ncases)).
compute d = inv(mdiag(sqrt(diag(vcv)))).
compute cr = (d * vcv * d).
compute smc = 1 - (1 and/ diag(inv(cr)) ).
call setdiag(cr,smc).
compute realeval = eval(cr).
compute evals = make(nvars,ndatsets,-9999).
compute nm1 = 1 / (ncases-1).
loop #nds = 1 to ndatsets.
compute x = sqrt(2 * (ln(uniform(ncases,nvars)) * -1) ) and*
          cos(6.283185 * uniform(ncases,nvars) ).
compute vcv = nm1 * (sscp(x) - ((t(csum(x))*csum(x))/ncases)).
compute d = inv(mdiag(sqrt(diag(vcv)))).
compute r = d * vcv * d.
compute smc = 1 - (1 and/ diag(inv(r)) ).
call setdiag(r,smc).
compute evals(:,#nds) = eval(r).
end loop.
end if.

* PAF/common factor analysis and raw data permutation.
do if (kind = 2 and randtype = 2).
compute nm1 = 1 / (ncases-1).
compute vcv = nm1 * (sscp(raw) - ((t(csum(raw))*csum(raw))/ncases)).
compute d = inv(mdiag(sqrt(diag(vcv)))).
```

Appendix P (Continued)

```
compute cr = (d * vcv * d).
compute smc = 1 - (1 and/ diag(inv(cr)) ).
call setdiag(cr,smc).
compute realeval = eval(cr).
compute evals = make(nvars,ndatsets,-9999).
compute nm1 = 1 / (ncases-1).
loop #nds = 1 to ndatsets.
compute x = raw.
loop #c = 1 to nvars.
loop #r = 1 to (ncases -1).
compute k = trunc( (ncases - #r + 1) * uniform(1,1) + 1 )  + #r - 1.
compute d = x(#r,#c).
compute x(#r,#c) = x(k,#c).
compute x(k,#c) = d.
end loop.
end loop.
compute vcv = nm1 * (sscp(x) - ((t(csum(x))*csum(x))/ncases)).
compute d = inv(mdiag(sqrt(diag(vcv)))).
compute r = d * vcv * d.
compute smc = 1 - (1 and/ diag(inv(r)) ).
call setdiag(r,smc).
compute evals(:,#nds) = eval(r).
end loop.
end if.

* identifying the eigenvalues corresponding to the desired percentile.
compute num = rnd((percent*ndatsets)/100).
compute results = { t(1:nvars), realeval, t(1:nvars), t(1:nvars) }.
loop #root = 1 to nvars.
compute ranks = rnkorder(evals(#root,:)).
loop #col = 1 to ndatsets.
do if (ranks(1,#col) = num).
compute results(#root,4) = evals(#root,#col).
break.
end if.
end loop.
end loop.
compute results(:,3) = rsum(evals) / ndatsets.

print /title="PARALLEL ANALYSIS:".
do if (kind = 1 and randtype = 1).
print /title="Principal Components and Random Normal Data Generation".
else if (kind = 1 and randtype = 2).
print /title="Principal Components and Raw Data Permutation".
else if (kind = 2 and randtype = 1).
print /title="PAF/Common Factor Analysis and Random Normal Data Generation".
else if (kind = 2 and randtype = 2).
print /title="PAF/Common Factor Analysis and Raw Data Permutation".
end if.
compute specifs = {ncases; nvars; ndatsets; percent}.
print specifs /title="Specifications for this Run:"
 /rlabels="Ncases" "Nvars" "Ndatsets" "Percent".
print results
 /title="Raw Data Eigenvalues, and Mean and Percentile Random Data Eigenvalues"
 /clabels="Root" "Raw Data" "Means" "Prcntyle"  /format "f12.6".
```

Appendix P (Continued)

```
do if   (kind = 2).
print / space = 1.
print /title="Warning: Parallel analyses of adjusted correlation matrices".
print /title="eg, with SMCs on the diagonal, tend to indicate more factors".
print /title="than warranted (Buja, A., and Eyuboglu, N., 1992, Remarks on parallel".
print /title="analysis. Multivariate Behavioral Research, 27, 509-540.).".
print /title="The eigenvalues for trivial, negligible factors in the real".
print /title="data commonly surpass corresponding random data eigenvalues".
print /title="for the same roots. The eigenvalues from parallel analyses".
print /title="can be used to determine the real data eigenvalues that are".
print /title="beyond chance, but additional procedures should then be used".
print /title="to trim trivial factors.".
print / space = 2.
print /title="Principal components eigenvalues are often used to determine".
print /title="the number of common factors. This is the default in most".
print /title="statistical software packages, and it is the primary practice".
print /title="in the literature. It is also the method used by many factor".
print /title="analysis experts, including Cattell, who often examined".
print /title="principal components eigenvalues in his scree plots to determine".
print /title="the number of common factors. But others believe this common".
print /title="practice is wrong. Principal components eigenvalues are based".
print /title="on all of the variance in correlation matrices, including both".
print /title="the variance that is shared among variables and the variances".
print /title="that are unique to the variables. In contrast, principal".
print /title="axis eigenvalues are based solely on the shared variance".
print /title="among the variables. The two procedures are qualitatively".
print /title="different. Some therefore claim that the eigenvalues from one".
print /title="extraction method should not be used to determine".
print /title="the number of factors for the other extraction method.".
print /title="The issue remains neglected and unsettled.".
end if.
compute root     = results(:,1).
compute rawdata = results(:,2).
compute percntyl = results(:,4).
save results /outfile= 'screedata.sav' / var=root rawdata means percntyl .
end matrix.
* plots the eigenvalues, by root, for the real/raw data and for the random data.
GET file= 'screedata.sav'.
TSPLOT VARIABLES= rawdata means percntyl /ID= root /NOLOG.
```

P.2. Output from PA

```
Run MATRIX procedure:
PARALLEL ANALYSIS:
PAF/Common Factor Analysis and Raw Data Permutation
Specifications for this Run:
N cases   518
N vars    36
N datsets  1000
Percent   99
Raw Data Eigenvalues, and Mean and Percentile Random Data Eigenvalues
      Root       Raw Data     Means      Prcntyle
   1.000000   14.244912    .608422    .710132
   2.000000    2.471346    .543060    .618360
   3.000000    1.407879    .492023    .557108
   4.000000     .664931    .449285    .510650
```

Appendix P (Continued)

5.000000	.459967	.411445	.466070
6.000000	.442453	.376709	.424155
7.000000	.316528	.342987	.391665
8.000000	.233245	.311922	.355892
9.000000	.206428	.282117	.326729
10.000000	.192324	.253476	.295576
11.000000	.167522	.226025	.266649
12.000000	.121242	.199350	.236747
13.000000	.094860	.173850	.209563
14.000000	.060880	.148436	.186177
15.000000	.045801	.124422	.159638
16.000000	.035630	.100353	.133583
17.000000	.015551	.077318	.110877
18.000000	.005317	.054005	.085724
19.000000	-.001097	.031724	.061764
20.000000	-.020148	.009306	.039276
21.000000	-.024372	-.012372	.016918
22.000000	-.036270	-.033983	-.006024
23.000000	-.047873	-.055141	-.025436
24.000000	-.062550	-.076079	-.046346
25.000000	-.074240	-.097467	-.068670
26.000000	-.086605	-.117847	-.089726
27.000000	-.094832	-.138800	-.111181
28.000000	-.119602	-.159944	-.134154
29.000000	-.136656	-.180912	-.155611
30.000000	-.146284	-.202101	-.175068
31.000000	-.164435	-.223643	-.197408
32.000000	-.171358	-.245928	-.218085
33.000000	-.181057	-.268552	-.240462
34.000000	-.186227	-.292458	-.267054
35.000000	-.201446	-.319135	-.288611
36.000000	-.221091	-.352232	-.315194

Warning: Parallel analyses of adjusted correlation matrices eg, with SMCs on the diagonal, tend to indicate more factors than warranted (Buja, A., and Eyuboglu, N., 1992, Remarks on parallel analysis. Multivariate Behavioral Research, 27, 509-540.). The eigenvalues for trivial, negligible factors in the real data commonly surpass corresponding random data eigenvalues for the same roots. The eigenvalues from parallel analyses can be used to determine the real data eigenvalues that are beyond chance, but additional procedures should then be used to trim trivial factors.

Principal components eigenvalues are often used to determine the number of common factors. This is the default in most statistical software packages, and it is the primary practice in the literature. It is also the method used by many factor analysis experts, including Cattell, who often examined principal components eigenvalues in his scree plots to determine the number of common factors. But others believe this common practice is wrong. Principal components eigenvalues are based on all of the variance in correlation matrices, including both the variance that is shared among variables and the variances that are unique to the variables. In contrast, principal axis eigenvalues are based solely on the shared variance among the variables. The two procedures are qualitatively different. Some therefore claim that the eigenvalues from one extraction method should not be used to determine the number of factors for the other extraction method.

The issue remains neglected and unsettled.

------ END MATRIX -----