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Description

Technology facilitating personal communication is becoming increasingly complex, providing consumers with a variety of choices in terms of connectivity options. Young adults aged between 18 to 34 years are the current and future consumers of today's rapidly developing and changing technological developments. The speed that rapid advances in technology reach the market also contribute to the challenges faced by young adults in their choice of convergent communication options. For researchers the challenge resides in analysing the influences on consumer adoption of new media technologies in a rapidly changing environment where new applications evolve in a matter of months. This study aims to achieve a better understanding of what influences the decision young adults make when selecting a particular converged mobile device, and outlines an online research project currently seeking to determine the role of brand in the purchase decision making process of mobile phone converged technology in Australia.

Location

iC - SBS Teaching Facility

What influence does brand play on the adoption of new converged portable digital media devices amongst young adults in Australia?

David Rogerson

Abstract: *Technology facilitating personal communication is becoming increasingly complex, providing consumers with a variety of choices in terms of connectivity options. Young adults aged between 18 to 34 years are the current and future consumers of today's rapidly developing and changing technological developments. The speed that rapid advances in technology reach the market also contribute to the challenges faced by young adults in their choice of convergent communication options. For researchers the challenge resides in analysing the influences on consumer adoption of new media technologies in a rapidly changing environment where new applications evolve in a matter of months. This study aims to achieve a better understanding of what influences the decision young adults make when selecting a particular converged mobile device, and outlines an online research project currently seeking to determine the role of brand in the purchase decision making process of mobile phone converged technology in Australia.*

Introduction

The end of the 20th century saw a shift in the communication methods available to individuals to facilitate interpersonal communication for social or business purposes. Previously, letters were written, memos typed and subsequently delivered through inter-office couriers. Conversations were exchanged over fixed line connections, or on a physical face to face basis. Social networking as a concept was the domain of dining rooms, private functions, conferences or other opportunities to meet and greet on a personal one-to-one basis. Technological developments such as the internet, wide spread access to affordable computing devices, and access to digital devices and wireless connectivity services have dramatically changed the way we access communication channels, how individuals interact with technology, and how individuals use technology to interact with others. Social networking has evolved into a one-to-one and one-to-many conversation utilising specific branded social networking software via companies such as Facebook and Twitter. In addition, a computer or laptop is no longer required to undertake this type of internet based social networking. Mobile phones and similar devices have the functionality built in, and are readily available with branded social networking software already loaded or available for download. Social networking is now readily accessible due to the connectivity and mobile nature of the device it can be accessed on.

In 2006-2007 there were 2.1 million mobile phone subscribers in Australia an increase of 165 % since 1999-2000 (ACMA 2008, p. 8). The number of mobile phone services increased by 9.5% in 2008-09 to 24.22 million (ACMA 2009a, p.16), while wireless broadband services grew strongly increasing 162% over figures from 2007/2008 to reach 2.1 million services as at 30 June 2009 (ACMA 2009a, p.56).

In contrast, fixed line phone subscriptions in Australia increased slowly reaching a peak in 2003-2004. Since that time fixed line subscriptions have decreased an average of two percent each year, with 10.9 million services in operation in 2006 -2007 (ACMA 2008) declining to 10.67 million in 2008/9 (ACMA 2009a).

As evidenced in northern hemisphere research (Constantiou, Damsgaard & Knutsen 2007; Sweeney 2006), and most recently in Australia (ACMA 2008; ACMA 2009a) adoption and usage of mobile phones and converged mobile technology among young adults (those currently aged between 18 and 34 years) is overtaking their use of fixed telephone and fixed cable internet services leading to an expectation that the usage of fixed line services will continue to decline.

Young adults have readily adopted mobile methods of maintaining contact with each other. Multiple text messages are often exchanged instead of a vocal interaction via a telephone call. The internet is the place to 'chat' rather than using personal face to face conversation in a physical space; and smart phone functionally is preferred using touch pads on miniaturised colour screens. Through social networking groups like Twitter and Facebook friends and associates can remain across actions and thoughts as they are posted or uploaded, with automated alerts able to inform friends and followers when information is updated.

The current young adult demographic will form the backbone of the future mobile technology market (ACMA 2009a). As a result this consumer group is required to make purchase decisions about mobile communication devices in order to facilitate their social and business interactions in an age where mobile connectivity and digital technology options have become the norm.

Converged Technology Devices

Underlying this rapid pace of change in a digitally energised world, technology facilitating personal communication is also becoming increasingly complex, providing consumers with a variety of choices in terms of connectivity options. While telephone technology has increased in its complexity moving from fixed telephone line analogue services to mobile phone wireless and digital platforms, the devices that facilitate personal communication have experienced their own rapid development (Eng & Quaia 2009; Latzer 2009; Gill 2008).

Single function mobile phone handsets have evolved since the 1990's into the current range of multi functional portable devices. Mobile devices can provide access to various combinations of technological capabilities such as email, texting (Short Message Service -SMS), digital cameras, media players, global positioning systems (GPS), and the internet. These capabilities can be described as Digital Media Technologies (DMTs). DMTs are characterised by their innovation, accessibility, portability, and flexibility of use. Use of DMTs is not confined to any particular location. Through wireless and internet capabilities, the division between DMT usage in homes, workplaces, and social spaces is less clearly defined.

Combining DMT functionalities into a single technological device is a concept known as *convergence* (European Commission 1997; ACMA 2007). Rather than selecting communications equipment based on a singular function, or as the portability/mobility of the device (Moreau, Markman & Lehmann 2001), Gill and Lei (Gill 2008; Gill & Lei 2009)

reported that consumer choice can now be based on the DMT converged functionality accessible via portable communication devices such as mobile phones or personal digital assistants (PDAs).

The speed with which advances in technology are available for purchase contribute to the challenges faced by consumers in terms of selecting convergent communication options (Luke 2007; Gill 2008), and challenges faced by academics, in terms of analysing the influences on consumer adoption of new media technologies (Constantiou, Damsgaard & Knutsen 2007).

Existing convergence research has focused on investigations into functionality options (ACMA 2008), consumer product preferences and acceptance (Constantiou 2009), legislative frameworks governing technology functions (Michalis 1999; ACMA 2008), and monitoring adoption of technology (ACMA 2007a; ACMA 2008a; Wilska & Pedrozo 2007; Constantiou, Damsgaard & Knutsen 2007). Of note is the rarity of research into what influences the consumer's choice in selecting an individual converged mobile device capable of accessing DMT functionality to 'text' or 'tweet', more particularly what influence brand has in the selection process.

Rapid Development Pace of Converged Technology Capabilities

The speed and growth of technology device development and the rapidly expanding range of DMT's and the channels facilitating connectivity such as Wi-Fi, (*Wireless Fidelity, a set of standards for transmitting data over a wireless network*) presents challenges to consumer researchers. A demonstration of this is the 2009 announcement that Autonet Mobile can offer enhanced technology opportunities for motor vehicles, whereby Wi-Fi will be available for '*in vehicle*' use (Quain 2009).

At the 2010 Consumer Electronics Association International Exhibition (January, 7-10) in Las Vegas, USA, (<http://www.cesweb.org/default.asp>) Google announced further plans for its new Android mobile phone in what could be viewed in the business world as a direct commercial attempt to break the grip of Apple's i-phone and related product dominance in the world of smartphones. To date Google's introduction has had little impact on the dominance of Apples i-Phone product, particularly with the introduction of i-Phone 4, but does highlight the competitive drive to release converged media capable devices, and the resulting decision confusion that can be created for consumers with the changing range of products available.

Determining Influences on Young Adult's Selection of Converged Devices

In the Australian market, household consumers are increasingly dependent on their communications services, particularly their mobile phones. Services such as 3G, VoIP and wireless broadband internet are being increasingly used and the growth in these services is driving both commercial and Government funded projects.

Factors such as lifestyle, age and family type are shaping consumers' consumption choices (ACMA 2009a). The vast geographic expanse of the Australian landscape, the congregation of populations in capital cities, regionalised areas around the coast of the country, and to a lesser extent inland, sees Australians increasingly seeking flexibility in where and how they access communications and content. The importance of access to high speed internet services to improve personal and commercial technology

applications has been recognised by the Australian Government with the establishment of a Department of Broadband, Communications and the Digital Economy (<http://www.dbcde.gov.au/>) and the rollout of the proposed National Broadband Network (http://www.dbcde.gov.au/broadband/national_broadband_network) which aims to deliver high speed satellite and wireless technology to the majority of populated areas of the country.

While consumers have an ever expanding variety of mobile technology to select from, it is proposed to investigate the influence brand plays in the consumer's decision making process to purchase new converged portable digital media devices, specifically among young adults so they can keep pace with their social communication requirements. The term brand has been used to describe identifying marks such as a "*name, term, design, or symbol*" that is used to differentiate, or identify products or services (American Marketing Association 2009), assisting consumers or users in their product or service in their decision making processes (Milewicz & Herbig 1994). Legal protection for brands is provided through registered trademarks, and where a brand identifies an entire company, it is usually referred to as a trade name (American Marketing Association 2009), or a corporate brand (Gylling & Lindberg-Repo 2006).

The American Marketing Associations' (AMA) definition of brand has been criticised for focusing on visual depictions of the brand as the differentiating mechanism between products or services rather than the features or benefits associated with the brand itself. In contrast, de Chernatony and McDonald (1998, p.20), propose a broader definition of brand that includes terms such as value, relevance and sustained performance from a consumers perspective. Despite this criticism, aspects of the AMA's definition continue to form part of the overall perspective on the singular term of brand shared by authors such as (Aaker 1991; Keller 2000; Keller & Lehmann 2006; Kotler & Pfoertsch 2007).

Ad-hoc market research has been undertaken by government legislative authorities such as the Australian Communications and Media Authority (ACMA 2008, ACMA 2007) and the European Union (European Commission 1997; Michalis 1999) in their attempts to stay updated on the implications of new technology. This has assisted to formulate policies on the consequences of adoption, and monitor adoption rates, but not necessarily identifying the influences on consumer adoption or purchase behaviour.

Measuring Influences on Converged Technology Purchase Decisions

As consumer based research does not appear to be keeping pace with rapid technology development, the availability of research on converged technology purchase decisions from a consumer's perspective is rare. Technology research appears to have focused mainly on the B2C (*Business-To-Consumer*) and B2B (*Business to Business*) segments of the market (Keller & Lehmann 2006; Wong & Hsu 2008; Kotler & Pfoertsch 2007) concentrating on the role of new technology development and convergence (Gill 2008; Christensen, Craig & Hart 2001; Latzer 2009), cultural influences on technology adoption (Bagchi, Hart & Peterson 2004), and new technology uptake (Wilska & Pedrozo 2007; Constantiou, Damsgaard & Knutsen 2007; ACMA 2007; ACMA 2008).

Brand related researched has progressed from the overall importance of the *brand image* and *brand diffusion* (Aaker 1991) to the concept of *brand loyalty* (Lehmann, Keller & Farley 2008); *brand value* (Milewicz & Herbig 1994; Wood 2000); *brand extension*

(Taylor & Bearden 2002; Cheong & Phau 2003) and *brand communities and tribes* (Veloutsou & Moutinho 2009).

Further to this, models that predict the outcome when the three elements of brand, technology convergence, and consumer decision processes are combined have not been extensively explored. The use of a multi stage research methodology provides the advantage of updated and contemporary views on methodology which engages the respondent in an environment they use and feel comfortable with.

Literature reviewed to date identified that research into the role brand plays in consumer choices of mobile technology devices with convergence capabilities is currently limited. It is proposed to address an identified gap in the area of converged media adoption in Australia by investigating the influence of brand on consumer choice decisions among young adults when they are considering converged portable digital media devices.

In order to investigate young adults' purchase decisions related to converged technology devices, an approach is required that encompasses the technology associated with their preferred means of communication. As a result it is proposed to use online panel based data collection method, a process tested as part of a coursework component on questionnaire development. Non-Student Samples among 18 – 34 adults were recommended to pilot the proposed questionnaire and test the nature of the data collected in the northern hemisphere against the findings of research gathered by ACMA in Australia. Feedback gained from the pilot questionnaire will be applied to the main study to be conducted with a sample size of N=300.

These test findings, whilst indicative, have revealed useful baseline data for further consideration and analysis while the thesis study design is finalised. They include

- When asked “*How long have you owned or have been using the mobile you personally use on a regular basis*” Close to one in three (65.6%) of respondents had been doing so for 12 months or more.
- The main contributing factor that assisted in the final decision a respondent personally made to purchase the mobile phone they currently use, was attributed by one in three (34%) to “the brand of mobile phone” ; however
- The additional functions the mobile phone also offered, was a contributing factor among 29.3% of respondents.
- Finally, when it came to the brand of mobile phone, Nokia was identified as the clear leader among respondents (54%), however if given the choice of brand a respondent could purchase, if money was no object , (51%) still preferred a Nokia mobile phone.
- It should be noted that this pilot questionnaire took place in September, 2009 prior to the pre-promotion and release of the latest Apple i-Phone version 4.

Conclusion

The wider body of research reveals that research is undertaken into the individual elements of brand, technology convergence and the consumer decision making process. The combination of all three in the purchase decision making process for newer converged technologies is not apparent. The rate of development and peer

reviewed information available to the commercial and academic market in this area is rare.

In gaining an understanding of the Australian market place, to enable comparison to other markets, it is important to place the usage, connectivity and adoption of services in context. This enables a contrast and analysis with relevant data that has been identified in northern hemisphere markets. In addition, this approach assists in discovering the attributes and variables that potentially shape the environment of the Australian mobile telephony market, while identifying future academic and commercial applications for the proposed research. Unlike many other countries throughout the world, Australians are readily recognised as adopters of new technologies such as mobile phones, microwave ovens, VCR's and CD players (Bagchi, Hart & Peterson 2004; Ironmonger, Lloyd-Smith & Soupourmas 2000).

Young adults are the future consumers of today's rapidly developing and changing technological developments. They represent the way forward for business as far as adoption and up take of new technologies are concerned. Further, the addition of converged features into mobile telephones, and the interaction of mobile phones with other DMT's such as Wi-Fi and convergent capable products is the way of the future. An examination from the Australian market perspective will add to the body of knowledge, analysing brand as an influence on young adults in their purchase decisions of new technologies.

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