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Paper 14

M-technology, Consumption and Gambling: A conceptualisation of consumer vulnerability in an m-gambling marketspace

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Technology imbued m-marketing systems influence the consumptive lives of citizens, by facilitating anytime, anywhere business-to-consumer interactions. Business pundits' enthusiasm towards mobile services (m-services) has been driven by the promise of a marketspace context involving seamless, business-to-consumer interactions that can be simultaneously impulse-driven, highly entertaining and omnipresent. Arguably, gambling too is impulse-driven, exciting and easily accessible. An important question that needs to be addressed is: how the convergence of mobile technology and gambling will impact the millennial consumer. The authors address this question by examining the contextually bounded interactions between internal and external factors that make mobile phone users potentially vulnerable during m-gambling interactions. By examining key themes that describe the convergence of m-technology and gambling, we clarify the experiential nature of m-gambling and its relationship to consumer vulnerability.

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Consumer Culture Theory (Arnould and Thompson, 2005) is used to contextualise the conceptual model presented which incorporates consumption experiences and aspects of extended self-concept (Belk, 1988) involving gambling and m-technology consumption.

Introduction

Devices based on mobile technology are now commonplace in everyday life, and mobile services (m-services) are becoming increasingly important for consumers and firms. Watson, Pitt, Berthon, and Zinkhan (2002, p. 333) describe this current business environment as “Über-commerce” (u-commerce) in that it transforms our view of business by changing the interaction with customers as a result of ubiquitous, universal, and unison access to information and services, and the possibility for unique and personalised exchanges of information and m-services. Network-driven firms have created a new context for business to consumer interactions involving a seamless, mobile marketplace — based on marketing transactions with customers anytime, anywhere. A new m-service that illustrates u-commerce is gambling via mobile devices — m-gambling, which has received both enthusiastic and critical responses from marketplace and policy commentators. M-gambling, for example, can involve text-based gambling services whereby it is possible to gamble on sporting and racing events by sending SMS messages on mobile phones. The opportunity for gambling enterprises is that betting can be offered 24 hours a day, seven days a week in a global marketplace. Critics however believe that accessibility to gambling anytime, anywhere will lead to a greater risk of problem gambling (e.g. Australian Productivity Commission, 1999; Griffiths and Wood, 2000; Netemeyer, Burton, Cole, Williamson, Zucker, Bertman, and Diefenbach, 1998). Such arguments implicitly suggest that some individuals cannot navigate the marketplace — the m-gambling context creates vulnerabilities for individuals in the gambling marketplace.

Ringold (2005, p. 202) points out that marketplace navigation is purposeful, goal-directed behaviour which requires consumers to understand what they want to achieve and have the wherewithal to do so. Underlying an understanding of marketplace navigation of m-gambling services then is an assessment of the state of consumer competence. Ringold (2005) emphasises that adolescent and adult consumers are typically competent, because they are informed and able to use commercially provided information and products effectively, especially mature products (such as gambling). We argue however that m-gambling is not a mature product, and therefore consumers have minimal experience and marketplace knowledge about m-gambling consumption. In her commentary on vulnerability in the marketplace, Ringold (2005) argues that the consumer’s ‘experience counts’. Therefore, an important question that requires answering is: How will the convergence of mobile technology and gambling impact the millennial consumer, whose lived experiences are imbued with new technology-based services?

The objective of this article is to discuss and clarify certain implications of mobile technologies in the gambling marketplace. The objective is not to provide a detailed understanding of m-gambling experiences, nor to produce a long-range forecast of

consumer adoption rates of m-gambling, or marketplace revenue garnered from gambling; this would be overly ambitious given the dynamic nature of technological evolution and rapidly changing adoption of technology infused consumer devices. Instead, we address three general questions in this article. First, how does the m-gambling marketplace change the basic nature of space and time in the context of consumer behaviour, specifically experiential consumption of m-gambling services? Second, how should consumer vulnerability be conceptualised based the consumption behaviour of m-gambling? Without a clear conceptualisation, it will be difficult to introduce effective social marketing prevention strategies and policy responses to marketplace activity. Finally, how can m-gambling services be classified? Should we only be thinking of m-gambling as harmful to consumers and society when developing prevention strategies and gambling policy? Arguably current gambling policy unduly focuses on problem gambling; however the principle of consumer sovereignty and choice should be equally as important when devising gambling policy ([Australian Productivity Commission, 1999](#)). This statement is not meant to imply that there is no role for government in trying to alleviate the harms from problem m-gambling; rather, we argue that sound policy and prevention strategies need to take a holistic approach that attempts to balance net community costs and net community benefits. The next section will address m-technology consumption, and describes consumers' integration of mobile devices and m-services into their everyday life experiences.

Consuming M-technology

More than 1.5 billion consumers, or approximately 25 percent of the world's population, owned a mobile phone in June 2004, generating in excess of \$1.5 trillion in service revenues ([The Insight Research Corporation](#)). Alongside consumer adoption of m-services, distinct behaviours unique to the mobile platform have emerged including: convergent communication — one, hand-held device can communicate data, voice, and video exchanges; multitasking between the environmental “real” present and the mobile “conversational” present ([Sugai, 2005](#)); temporal and spatial liquidity — some m-service activities gain flexibility ([Balasubramanian, Peterson, and Jarvenpaa, 2002](#)) and empowerment of the everyday, mobile user over the ebb and flow of daily life activity ([Geser, 2004](#)). These behaviours demonstrate that m-technology — like the mobile phone is more than a technological artefact and has become a domesticated technology regularly used by the millennial consumer. Domestication of technology implies that the technology has been harnessed by the needs of the people who sustain it — who keep the device “safe” from damage by placing it in a personalised case and keep it electrically and financially “charged” for communication and interaction at all times ([Green, 2002](#)). Relatable to these constructions are overtones of predictable, reliable services that connect people through the mobile phone, to networks of people and m-services. At the center of the following discussion is a belief that “technology”, and thus mobile telephony, includes not only the built devices themselves, but also the practices and knowledge related to them, along with the social relationships that form around those devices, practices and knowledges ([MacKenzie and Wajcman, 1999](#)). Integral to the present research is

understanding that mobile devices have evolved to be personal technologies — even *intimate technologies*, that enable users to access ubiquitous, m-services which offer entertainment and content anytime, anywhere. We argue that mobile phone users attach personal and social meaning to their mobile device (Geser, 2004; Lacohee, Wakeford, and Pearson, 2003) and that in the context of the current research that the relationship between the consumer and the technological device potentially leads to vulnerability in a gambling marketplace. Belk's (1988) consumer research explains this understanding of consuming products by suggesting that one's possessions are actually an extension of one's self; that is, mobile phones are tools that allow users to do things they would otherwise be incapable of doing. Additionally we believe that mobile phones also symbolically extend self (Belk, 1988, p. 145). For example, mobile users purchase the latest technology to convince themselves that they are a different person than they would be without that latest upgrade. The mobile device — a possession — contributes to the users capability of “doing” (ubiquitously connected to networks) and “being” (“cool” and “cutting-edge” via consumption of the latest technology). These technological constructions are relevant to the current research in that it reveals experiential element in the consumption of gambling entertainment. Furthermore, the explicit addition of *self* as an essential actor in understanding vulnerability in the m-gambling marketplace provides advancement in the broader study of consumption behaviours involving “sin products”, which have rightly or wrongly come under increasing attack as being harmful. The following section therefore turns to gambling consumption experiences and addresses them in the context of Belk's (1988) extended self-concept.

Gambling: Reinforces and Enhances Self-concept

The widely accepted industry terminology for gambling is “gaming”. This nomenclature positions gambling more as pleasurable and entertaining activity that distances the industry from a biased construction of gambling as problematic and harmful to society. Messerlian, Deverensky, and Gupta (2005) for example argue that gambling is no longer considered a vice accompanied by negative connotations and stigmatisation, but that public perception constructs gambling as a legitimate form of entertainment. For some people, certain gambling products (e.g. bingo and lottery) are considered “cheap” entertainment. For other gamblers, products also offer hedonic consumption experiences by engaging the consumer's senses (e.g. psychologically — dreams; physically — excitement and arousal), fantasies (e.g. escapism), and emotions (e.g. ecstasy) (Holbrook and Hirschman, 1982). Loroz (2004) brings to light that these consumption encounters impact a gamblers self-concept in significant ways. For example, she proffers three self-concept constructions related to participation in gambling activities. These include the:

- construction of high-risk persona. Participation in high-risk leisure activities may lead to identity change through the creation of a high-risk persona. Whilst Loroz's (2004) study focuses on senior gamblers and argues that seniors do not perceive gambling as a high-risk activity, other consumers, such as young

people and low-income gamblers, might consume gambling products as a high-risk activity to manufacture a high-risk persona (Griffiths and Wood, 2000).

- contemplation of a rational or emotional self-classification. People can use gambling to classify oneself as a certain type of person — a variety seeker, a rebel, or a casino pro. These identities have multi-level influence on gambling behaviour at both *intrapersonal level* (individual self-definition and cognitive self-classification) and an *interpersonal level* (social networks, family and peers perceptions of the gambler's persona).
- opportunity for self-renewal. Arnould and Price (1993) discuss consumption of extraordinary experiences as a means of self-renewal, whereby a unique opportunity enables a person to try something new and the experience leads to personal growth and new knowledge. Loro (2004) points out that for the majority, gambling is not an extraordinary activity; however, dreaming of the “jackpot” offers gamblers a chance to remove themselves from their everyday environment (Casey, 2003).

These three self-concept constructions highlight the value that individuals can gain from the gambling identity and experience. The next section examines gambling benefits and consequences more specifically.

Benefits, Costs and Consequences of Gambling

Gambling research in the past has been criticised for its limited assessment of *value*, which results from a natural tendency to focus on the financial and social costs of gambling (Collins and Lapsley, 2003). In response to this criticism, we take a holistic view of gambling activity, with the aim to better understand the basis of a *benefit exchange* process that may inform the development and implementation of social marketing strategies. The key benefit identified from liberalisation of the gambling industry is the customer satisfaction experienced from accessing what for many consumers is a desirable form of entertainment (Australian Productivity Commission, 1999). In addition to individual customer benefits, the gambling industry contributes to wider society through employment and charitable activities.

Costs and Consequences of Gambling

In spite of research that emphasises the positive and psychological benefits of gambling (e.g. Australian Productivity Commission, 1999, 2002; Collins and Lapsley, 2003), the vast majority of existing analyses of gambling behaviour, especially in the macromarketing and marketing and policy fields, focuses on psychological and economic interpretations that position gambling as a “deviant” and “dangerous” activity that is harmful to society. Historically, gambling has also been perceived as a class issue, specifically in respect to affordability. This is because a high income gambler who loses \$10,000 a year out of an income of \$200,000 will probably not suffer significant adverse consequences. By comparison, the same expenditure out of an

income of \$20,000 is likely to entail highly problematic outcomes. When gambling is contrasted with other “sin product”, such as alcohol and tobacco, high income can be seen as an antidote to the ill-effects of high consumption ([Australian Productivity Commission, 1999](#)).

Pathological and problem gambling has a range of social, public policy and marketing issues associated ([Netemeyer et al., 1998](#), p. 156). Arguably, these existing consumer vulnerabilities will be further compound with the introduction of m-gambling services. Several vulnerability issues, directly related to problem gambling, that continue to be addressed by policy makers and marketers include:

- financial costs to society versus economic benefits, and the question of whether increased availability of gambling contributes to the level of problem and pathological gambling. In Australia, the costs associated with problem gambling are conservatively estimated at \$1.8 billion (with a higher estimate of \$5.6 billion) each year ([Australian Productivity Commission, 1999](#), 6.5). These costs are associated with financial costs — family debts and bankruptcy; effects on productivity and employment; crime — theft, litigation and imprisonment, treatment costs ([Collins and Lapsley, 2003](#); [Netemeyer et al., 1998](#)). There are also associated social costs, which include personal and family impacts such as divorce and separation, depression and suicide.
- gambling behaviour of lower socio-economic segments and related advertising issues. [Netemeyer et al. \(1998, p. 157\)](#) highlight research that states that lower socio-economic segments spend proportionally more of their income on gambling than do the middle and upper classes, because they are less educated and tend to overestimate the chances of winning. Action strategies have been implemented to try and restrict gambling advertising to prevent undesirable consumer behaviour in this segment ([Youn, Faber, and Shah, 2000](#)).
- increased teen gambling. Research has revealed that in addition to increasing rates of youth gambling, young people are also at higher risk for gambling related problems. Past research has indicated that adolescents tend to misuse gambling more than their adult counterparts ([Messerlian et al., 2005](#); [Shaffer and Bethune, 2000](#)).

With the introduction and wide diffusion of interactive technology, the challenge facing regulators and marketers has been to understand and assess the impact of new technologies on the gambling marketplace. The following section briefly overviews issues that have emerged since the introduction of online gambling, and then turns to a discussion of m-gambling services.

Costs and Benefits of Interactive Gambling

The “millennial consumer”, who seeks experience, entertainment, exhibitionism and evangelising ([Holbrook 2000](#)), can combine m-technology and their pursuit of “fun, fantasy and feeling” to access new entertainment-based m-services. [Table 14.1](#) outlines some of the potential consumer benefits in an m-gambling marketplace.

<i>Experience</i>	<i>Entertainment</i>	<i>Exhibitionism</i>	<i>Evangelizing</i>
<i>Intrapersonal Characteristics (Individual experiences)</i>		<i>Interpersonal Characteristics (Experiences formed through social network exchanges)</i>	
<p>Escapism making the best out of a subordinate economic situation (i.e. poverty); escaping from the routine of everyday life.</p> <p>Emotions – fun, fantasy and feelings.</p>	<p>Excitement – based on risk-taking and frequent opportunities to participate in gambling “anywhere, anytime”.</p> <p>Ecstasy – in “dreaming about the jackpot” and indulging in dreams of instant wealth.</p>	<p>Express – mobile devices describe personality (part of the extended self).</p> <p>Expose – via consumption of m-services – consumers manipulate their own social image as “cutting-edge” technology user and risk-taker.</p>	<p>Educate – marketplace offers encourage consumers to “opt-in” friends through peer-to-peer networking offers</p> <p>Endorse – “cheap” form of entertainment for some consumers.</p>

Table 14.1: Hypothetical M-gambling Consumption Experiences

In a gambling context, consumers are active participants in the experience. This means the experience is not created for a passive consumer — which is the case during consumption of other types of experiential products like movies or the performing arts. Arguable, the introduction of technology in the gambling experience could enhance consumer satisfaction, because of a sense of control over gambling activity and ease of access to an entertainment experience. The context of this extended purview of experience-oriented m-service is where we aim to explore consumer vulnerability during gambling exchanges. This research is important because regulators and some commentators are concerned that greater access to interactive gambling products will increase problem gambling and harm to society.

Griffiths and Wood (2000, pp. 216-217) have found that internet users, who may or may not be problem gamblers, are more likely to engage in internet gambling. In the context of gambling as a problem however, they argue that interactivity potentially transforms gambling from a social activity to being asocial. They point out that problematic gambling often involves forms of asocial activity (e.g. slot machines) and interactive technology essentially turns gambling from a social pastime enriched by social interactions with friends, family and other gamblers, to an asocial activity where interactions occurs between the gambler and the technological device. Countering this perspective however, is the argument that interactive gambling provides an alternative reality to the user and allows them feelings of immersion and anonymity which may be a psychologically reward (as outlined in Table 14.1). This immersion via technology, also know as a flow experience (Hoffman and Novak, 1996), may actually lead to an elated state of consciousness, which in itself may be highly psychologically, and/or physiologically rewarding (e.g. Bromberg, 1996; Griffiths, 1995, 1998).

Recent Australian research (Department of Communication, Information Technology and the Arts, (DCITA), 2004) has revealed that when assessing interactive gambling, specifically internet gambling, gender and income continue to impact participation rates. For example, results of the Roy Morgan *Internet Monitor* indicate that those aged 18 to 24 tend to be 69% over-represented as internet gamblers — relative to the adult, internet user population. Additionally, people with high discretionary income were also found to be 125% over-represented as internet gamblers. Of more concern however is the problem of adolescent gambling that is becoming established, “especially because the technologies involved in gambling, videogame playing and internet use are slowly merging and adolescents already living and interacting in a multi-media world are discovering that leisure opportunities are becoming more easily accessible and widespread” (Griffiths and Wood, 2000, p. 217). This concern is transferable to an m-technology environment; with arguable heightened concerns because of the potential increase in event frequency. M-consumers will be able to “opt-in” to subscription m-gambling services, with anytime anywhere access, and enhanced personalised service options.

The introduction of technology in the gambling experience enhances consumers’ active participation in gambling consumption. Currently, the latest technologically advanced slot machines are fast, involve rapid event frequency, are aurally and visually stimulating and rewarding and use technology and structural characteristics to encourage active and repetitive play which may become habitual for some (Griffiths

and Wood, 2000). Similar use of advanced technology is capable of enhancing other gambling products, as with bingo and keno, in producing new gambling products like interactive television gambling (Griffiths, 1999). The next stage of technology convergence involves delivering many of the advanced technology features of new gambling products and services with the internet and accessibility through mobile devices and handsets.

Fundamental to these technological constructions is individual self-efficacy; that is m-consumers' beliefs and sense of efficacy in mastery of mobile technology, which is demonstrated via their technical capabilities in producing commercial and social exchanges using mobile devices. We hypothesise that m-gambling services will aim to leverage consumers' technological self-efficacy to motivate exchanges which may range from transient, compulsive, or loyal exchanges depending on consumer involvement in the gambling services offered. The assumption underlying this hypothesised relationship between gambling services and self-efficacy is the concept of cognitive and affective priming. Priming draws upon an m-consumer's past experience and preferences for technology to act as a contextual cue in m-gambling. We therefore believe that cognitive and affective priming contributes to experiences of consumer vulnerability. The following section now turns to a detailed discussion of consumer vulnerability in an m-gambling marketplace.

Consumer Vulnerability to M-gambling

Traditionally consumers have been considered vulnerable on demographic grounds, because of age, race, income, education and/or gender. In addition, Brenkert (1998) identified four categories of vulnerable consumers: the physically vulnerable, the cognitively vulnerable, the motivationally vulnerable and the socially vulnerable. Other research (Morgan, Schuler, and Stoltman, 1995) has suggested consumers' level of sophistication in the marketplace must be taken into account, while Hill (2005) has recently identified the need to address vulnerability as a function of both individual characteristics and structural or systematic attributes of the marketplace.

This article focuses specifically on vulnerable m-consumers. As such, these consumers are likely to differ from the traditionally defined "vulnerable consumer", who has previously been described as those who have difficulty understanding information and making well reasoned decisions because of cognitive or social deficit associated with age, mental capacity, income or social circumstances. Recently Baker, Gentry, and Rittenburg (2005, p. 134) provided a more useful marketing definition that is consumer-driven, stating that consumer vulnerability is:

a state of powerlessness that arises from an imbalance in marketplace interactions or from the consumption of marketing messages and products... The actual vulnerability arises from the *interaction* of individual states, individual characteristics, and external conditions within a context where consumption goals may be hindered and the experience affects personal and social perceptions of self.

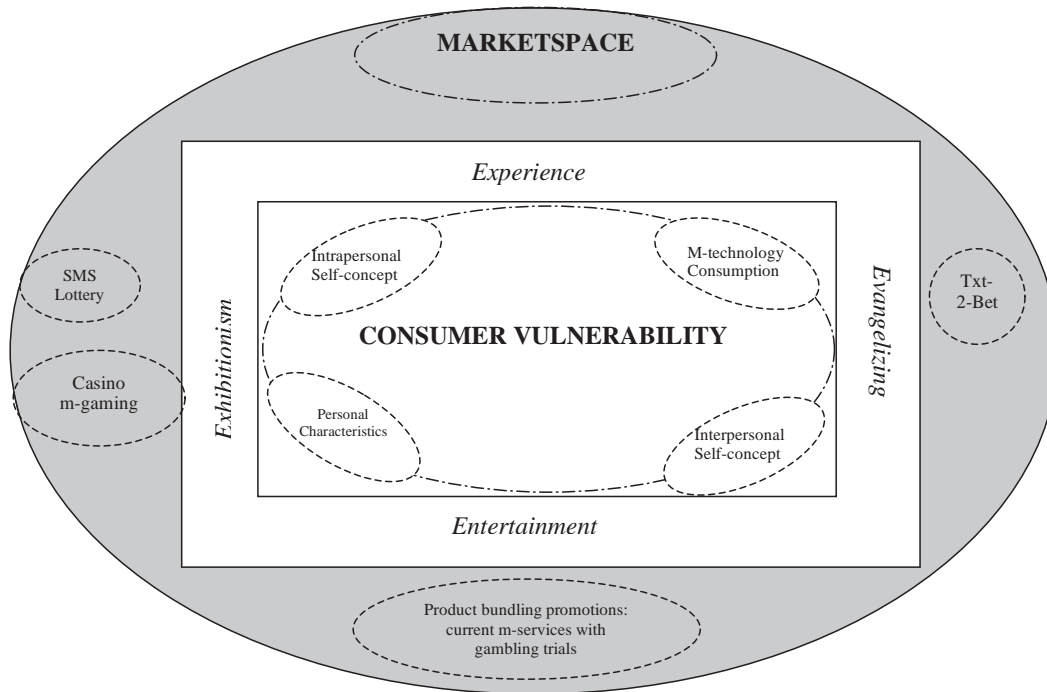


Figure 14.1: Conceptual Model Defining Consumer Vulnerability in an M-gambling Marketplace

To conceptualise the m-gambling experience, a model (Figure 14.1) that summarises the contextually bounded experience of consumer vulnerability is presented. This model draws upon an understanding of m-gambling as an experiential product involving experiences, entertainment, exhibitionism, evangelizing which affects personal and social perceptions of individual self-concept during m-gambling interactions. We do not believe that m-consumers are at all times vulnerable during m-gambling transactions, rather we agree with Baker et al. (2005)'s argument that consumer vulnerability is dynamic in nature and contextually bounded.

Baker et al. (2005) point out that no one chooses to experience vulnerability. In fact research (e.g. Bagozzi and Dholakia, 2002; Stewart and Pavlou, 2002) has documented that technology users typically feel empowered and in control when they use technology in marketing exchanges and relationships. This occurs because technology allows the user to choose what information they absorb and when, with reduced barriers and costs (Watson et al., 2002). However, an m-consumer may experience vulnerability owing to a lack of control during the gambling exchange process related to personal characteristics (e.g. high-risk persona) and cognitive priming from past technology-based gaming experiences. Past technology-imbued exchanges may encourage m-consumers to play for longer periods of time because they are focused on accumulating as many points as possible. However, in other m-gambling situations, m-consumers may experience frustration because they are unable to accomplish set goals in the gambling consumption situation (i.e. winning) — this potentially leads some gamblers to a temporal vulnerability, which is then compounded by a sense of feeling out of control (e.g. negative mood state), or disoriented (i.e. event frequency

can be very rapid, particularly if the m-gambler is subscribed to several betting services). This behaviour is compounded when a consumer lacks a goal in the short run (e.g. gambling limit) and is also removed from a transaction of cash reality because the monetary exchange is intangible.

Situations will arise where m-consumers find themselves faced with marketplace conditions in which they are uninterested in protecting themselves from the occurrence of intentional inequities in marketplace relationships. For example, interactive gambling poses significant new risks for problem gamblers in that it represents a quantum leap in accessibility to gambling (Australian Productivity Commission, 1999). Twenty-four hour accessibility will be construed positively by problem gamblers, who will be able to have anywhere, anytime participation in gambling entertainment. Additionally, the quantum leap in accessibility to gambling through m-services will likely involve new groups of people participating in gambling. Promotional offers for example, using product bundling and m-gambling activities as an incentive, will encourage new consumers to trial m-gambling services. These offers, which are potentially unsolicited, could be delivered to a mobile user during a personal state (e.g. in transitional state), when their individual agency and control is reduced.

Clearly, different interactions between individual m-consumers and the marketplace will influence a consumer's state of vulnerability. Future assessment of vulnerability in the m-gambling marketplace then should be reliant upon a "transitional perspective" of life course, rather than on a trajectory perspective which is a "steady-state" of existence (e.g. youth, gender, etc.). Baker et al. (2005, p. 136) describe a transitional perspective as having "knowledge that both exit and entry processes must be handled by the individual". When considering an m-service regulatory environment for example, decision-makers could be overly focused on entry processes; resulting in legislation that overly regulates the marketplace, quashing innovation in m-services, as well as underestimating the benefits that accrue to individuals that choose to participate in gambling entertainment. We believe that the current state of the m-gambling debate is locked into a *trajectory perspective* of consumer vulnerability. The risk in sustaining this perspective is that decision-makers will develop and implement policy and prevention strategies that are patronising and overly paternalistic. Furthermore, social marketing strategy will be ineffective because prevention strategies do not create an appropriate marketing exchange when engaging m-consumers in responsible gambling behaviours. The following section now turns to a discussion on framing policy and prevention strategies for m-gambling.

Discussion

Increasingly, western governments have supported greater access and distribution of legalised gambling activities as a means of raising money without incurring the wrath of most taxpayers. Competing with global expansion of the gambling industry has been increasing concern for the potential problems and abuses surrounding gambling. Specifically, some commentators are alarmed by the potential of interactive gambling, and the resulting impact that the gambling industry will have on local and

national economies (Youn et al., 2000). The seriousness of this issue and how severe it could become are concerns for legislatures, policymakers and social marketers. Implementation of policy and prevention strategies however, need to treat m-gamblers as they wish to be treated when dealing with legal products and services, and not as well-meaning others think they should be treated (Baker et al., 2005).

How vulnerable are m-gamblers?

Consumer researchers in the past have studied the influence of negative consumer behaviour and highlighted theories that construct consumers as “smart” or “dumb”. Calfee and Ringold (1992, p. 557) explain that the “dumb consumer” model of behaviour positions the consumer as a passive receiver of marketing messages, who on receipt of persistent and well crafted messages, will submit to an unconscious impulse to purchase. Combined with this disempowered state, is the assumption that “all sellers can routinely deceive consumers”. The “smart consumer” model on the other hand, describes consumers who instinctively mistrust marketing in the absence of sufficient information. Calfee and Ringold (1992, p. 558) posit that “smart consumers” are at one and the same time sceptical of marketing in general, yet willing to use marketing and advertising when they provide useful information. We believe that *perceived* vulnerability of m-consumers to interactive gambling has biased policy and prevention decision-makers toward a “dumb consumer” model when implementing gambling policy and prevention. Arguably, the momentum driving a decidedly regulated approach to interactive gambling is the concern that young consumers are high technology users, who aggressively seek out interactive, gaming experiences using technology-infused service. This prevention approach however is counterintuitive to a profile of technology users described as being better educated and having easy access to information, which can be used to make informed decisions.

Future Research

Eadington (2004, p. 217) points out that studying and evaluating current interactive gambling is challenging because it is largely an invisible industry. This is also true for m-gambling where the industry conflation between gaming and telephony creates a situation of questionable legal status in some countries (e.g. Australia) and the absence of regulatory bodies in some markets to which commercial gaming operators must report. Critically, at this stage of industry development, it is important that evidenced based research is used to inform policy and prevention decision-making. Furthermore, prevention strategies should rely on a balanced view of net community costs and net community benefits. Future consumer research however is needed to understand and assess the net benefits for the consumer (e.g. greater entertainment choices for consumers, lower prices for gambling products, greater convenience) and society (e.g. export opportunities and local employment), as well as the net costs (e.g. problem gambling, supplier integrity, access by minors, tax revenue losses). Additionally, cross-cultural studies should also be undertaken to understand the environmental impacts of culture, government regulation and technological develop-

ment in the consumption of m-gambling and consumer vulnerability. Finally, future research is needed to explain when m-consumers are and are not vulnerable and when the gambling context studied presents individuals with vulnerabilities.

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