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The use of computer supported analysis for interview data: a cross-cultural example from the electronic gaming industry

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KEY WORDS

Qualitative analysis;
Computer assisted analysis;
NVivo;
Societal Marketing & CSR;
Gambling and Stakeholders,
Legitimacy

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INTRODUCTION

The controversial nature of gambling generally and electronic gaming machines (EGMs) more specifically came to the researchers' attention some four to five years ago. After conducting an extensive literature review, it was discovered that, whilst there is a plethora of academic literature on research related to aspects of problematic gambling, a dearth existed in the non-problem gambling literature. In fact, a gaping chasm appears to exist in regard to any published material on the marketing of EGMs. As a consequence, it was necessary to generate primary data due to the total absence of available empirical data in this area (in addition to the aim of generating insights into the gaming industry in terms of marketing).

While there is a need for research in the area, data collection is difficult due to the widespread negative perception of the EGM industry by many stakeholders, particularly the media, along with non-governmental organisations (NGOs) and many in the community. As a result, information generated from within the gaming industry is considered to be highly sensitive. Respondents were cautious and required assurances of total confidentiality.

A qualitative methodology was considered most appropriate for the purposes of this study as it is known for its ability to generate in-depth knowledge in an area that has no existing research. Patton (2002) refers to the "power of qualitative data" (p. 17) in its ability to go beyond mere numbers and yield rich insights. A hallmark of qualitative analysis is its "thick description", which in turn is "balanced by analysis and interpretation" (Patton 2002, p. 503). A qualitative approach also ensures that high quality data are acquired from a relatively small sample, thus managing the issues of sensitivity and participant confidence.

This paper discusses the qualitative approach used in this research. In particular it highlights the benefits of using computer mediated tools for analysis – especially NVivo – showing that qualitative research and analysis packages, such as NVivo, can be used for social and societal marketing, especially when data are sensitive, limited or confidential.

LITERATURE REVIEW

Analysis of qualitative data can be described as a task which is demanding, repetitive and arduous. Although predominately a mechanical exercise, it requires an ability of the researcher to be dynamic, intuitive and creative, to be able to think, reason and theorise. The object of qualitative analysis is to deconstruct blocks of data through fragmentation and then have them coalesce into collections of categories which relate conceptually and theoretically, and which make assumptions about the phenomenon being studied (Jones 2005). Richards calls this process "decontextualizing and recontextualizing" (2002, 200). He regards this process as a fundamental component in the analysis of qualitative data. Typically, qualitative research is a one researcher domain. Data are acquired through firsthand experience as a result of subjective interpretation. Understandings of phenomena are tempered through experience, bias and knowledge (Ely, Anzul et al. 1991).

It is argued that qualitative analysis is among the most demanding and least examined areas of social research (Miles 1979; Basit 2003). This could be due to the larger investments of time and effort that qualitative inquiry requires. This is especially relevant since the researcher needs to spend time becoming familiar with the data and the subjects of the research – this process being far more peculiar to qualitative research rather than quantitative. Qualitative research does not permit short-cuts (Delamont 1992). It is a continuous process which dominates the research activity, beginning with data collection through to conceptualisation and beyond (Ely, Anzul et al. 1991). The analytical approach requires a process of reduction and accumulation to manage and classify data. This process requires context specific textual segments to be removed from their source and accumulated into context independent repositories. A *textual segment* is defined by Tesch as "a segment of text that is comprehensible by itself and contains one idea, episode, or piece of information" (1990, 116). This activity constitutes the decontextualizing and recontextualizing" that Richards (2002, 200) discusses.

The researcher's ability to code is an essential part of analysis (DeNardo and Levers 2002; Basit 2003). Coding requires the researcher to firstly identify the meaningful segments of text among the less valued data, and secondly, to tag or label these data so that they can be located along-side equally salient data. In doing so, tags must be descriptive and sufficiently abstract to encompass other similar, yet unique, datum (Glaser 1978). Miles and Huberman (1994) discuss two methods of code creation. The first method, which is preferred by inductive researchers, involves coding the data without *a priori* knowledge and labelling the data, at least initially, using the data itself as the tag (Glaser and Strauss 1967). This is often called *in vivo* coding. The second method uses an established list of codes (or tags). These usually come from the data collection instrument.

Up until recently, qualitative analysis has been kept mainly in the domain of manual, hand wrought techniques. Applications range from pen and paper methods through to computer assistance with programs like Microsoft Word and Excel. In recent years however, dedicated software have been designed to assist researchers with the processes of qualitative analysis. One of the first computer programs to provide real assistance to qualitative researchers was NUD*IST™ 1.0[1] (Richards 2002). NUD*IST – standing for: *Non-Numerical Unstructured Data by Indexing Searching, and Theorising* – was developed to provide to qualitative researchers a program like SPSS but as a *non-Statistical* Package for Social Scientists. The fundamental purpose of NUD*IST was to provide functions which would assist researchers in the retrieval of text from data, allow users to code that data, and to develop a system of relating codes to each other using a tree structure (Jones 2007).

Computerised packages for qualitative analysis have become far more sophisticated than these early systems. Software, like QSR-NVivo, provide many tools for analysis, reliability, management and reporting. However, the uptake of these products has not been without controversy. The research community is divided in regard to the deficits and benefits of digital intervention in what is fundamentally a human endeavour (Crowley, Harré et al. 2002; Basit 2003). Opponents argue that methodological impurities may result as data are transferred into a digital – ones and zeros – environment. The

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[1] QSR International Pty Ltd

abstraction that results from this transfer may misrepresent or simplify the multi-dimensional qualities of the original data. This can certainly be the case with simple, plain text programs, where expression and emphasis can be lost, but the latest generation of augmented, rich text programs tend to mitigate this deficiency (Bourdon 2002; Crowley, Harré et al. 2002). Another argument emphasises the utility of computers for counting and producing numbers. It is seen by some, that this may force researchers into the trap of turning qualitative accounts into semi-quantitative arrays of analysis by enumerating the facts rather than interpreting them. While qualitative analysis software will often provide these facilities, it is not their strength and it detracts from their purpose (Crowley, Harré et al. 2002; Welsh 2002). Software can also be seen to distance the researcher from their research by providing a buffer between the person and their data (Bourdon 2002; Welsh 2002).

Proponents see qualitative analysis software as the genesis of the new age in qualitative research. Software can assist researchers by providing better data management, reducing time consuming repetition and offering greater flexibility. Computer supported analysis can provide higher accuracy and greater transparency (Welsh 2002). In addition, software can provide faster and more comprehensive methods of inquiring into the data, and much more versatile and efficient systems of collecting, storing and reporting (DeNardo and Levers 2002; Basit 2003). It is often misconstrued by critics that software does the analysis for the researcher – this is not the case. The researcher must still collect the data, decide what to code and how to conceptualise. However, the software does increase the ease at which analysis is undertaken, by minimising repetitive, mechanical tasks (Bourdon 2002). Computer assistance is merely a tool which facilitates more effective and efficient analysis (Coffey and Atkinson 1996). "Researchers who use the packages are often amazed that this kind of work, with its thousands of pages of data, could ever have been conducted by hand" (Basit 2003, 145).

Despite these debates, the use of computer assisted analysis is on the increase (DeNardo and Levers 2002; Basit 2003, 145; Bringer, Johnston et al. 2006; Bazeley 2007; Wong 2008). A number of notable qualitative theorists have encouraged the use of qualitative data analysis software within their research: (Miles and Huberman 1994; Denzin and Lincoln 1998; Krueger 1998; Berg 2001; Merriam 2001; Silverman 2001; Morse and Richards 2002; Patton 2002).

In this research – using NVivo™ 8.0 (QSR International Pty Ltd, 2008) – the software approach has been an invaluable tool. Large amounts of data were managed relatively easily. Data were coded more generously than would have been achieved with 'paper and pen' methods, and while this most probably led to over-coding (this is a problem reported by Blismas and Dainty (2003, 460), it allowed ideas and issues to emerge more freely without the compulsion to force data into already established categories. The software also permitted easier reporting and reflection.

Initially, a literature review was conducted on gambling (particularly relating to 'harm minimisation'), a list of nine topics was developed and arrangements made for interviewing respondents in the gaming industry. During the process of analysing the interviews using NVivo, distinct patterns began to emerge, largely driven by the nine topic areas developed for the interviews. Following this analysis a further review of the extant research ensued covering three substantive areas – societal marketing, stakeholder theory and corporate social responsibility (CSR). This led to theoretical development. The next section will review the literature associated with gambling.

Societal Marketing, CSR, Gambling and Stakeholders

Kotler et al.'s (2001) societal marketing concept recognises that marketers need to consider the long-run interests of society in addition to economic and other considerations such as customers and employees. This concept however does not elaborate on the social aspect in terms of who the various stakeholders are and how companies can become more socially responsible. Accordingly, the societal marketing concept needs to be elaborated on, and strengthened by, a robust explanation and inclusion of stakeholder and CSR theories. Many authors stress the imperative of including stakeholders in an organisation's social responsibility (see for example Aguilera et al. 2007; Black and Hartel 2004; Breen 2005; Carroll 1991; Maignan et al. 2005; Miles et al. 2006; Mitchell et al. 1997; Polonsky et al. 2003).

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Branco and Rodriques (2007) state that any "useful notion of CSR should be based on a stakeholder view" (p. 5). Accordingly, any societal marketing and CSR concept needs to include identification and inclusion of key stakeholders. The most prominent in the gaming industry in New South Wales, Australia being the Government and the media, in addition to the gaming industry's target market. The influence of key stakeholders cannot be under-emphasised. For example, the media and NGOs in Australia appear to have exerted a certain amount of pressure resulting in increased regulation of EGMs.

In practice, organisations have a long way to go in terms of being socially responsible. For instance Rundle-Thiele et al.'s (2007) study into consumers' knowledge of safe consumption levels of alcohol showed that, whilst alcohol marketers communicate the 'drink responsibly' message throughout their policies and programs and can therefore arguably be considered socially responsible, the majority of respondents (adults aged 18 years and over) were not aware of *safe* levels of alcohol consumption. Accordingly, the authors call for a focus on corporate social performance (CSP) in order to address the gap between stakeholder knowledge, and company policies and practices. Hing (2000) also found significant gaps between NSW Registered Clubs' views, policies and practices in terms of dealing with problem gambling, against an array of expectations from their key stakeholders. This highlights the importance of organisations identifying and responding to key stakeholder expectations in a manner that is also beneficial to the organisation (i.e. in a strategic manner).

Other authors focus on different aspects of CSR. For example, Polonsky et al. (2003) build on Porter's value chain to develop a 'harm chain' whereby the creation of harm occurring within marketing exchange networks can be examined and dealt with by policy makers and firms. The Reno model developed by Blaszczynski et al. (2004) also incorporates policy makers in the provision of responsible gaming, further emphasising the importance of including key stakeholders in any socially responsible program.

The importance of ethical programs throughout all levels of the organisation is endorsed by Moore (1999), who emphasises the salience of having a code of ethics by which business people can make ethical decisions, as governments "can't legislate moral behavior" (p. 305). Hemingway and Maclagan (2004) recognise the importance of personal values on corporate values and hence CSR. They endorse the role of individual managers as champions of "social responsibility, as opposed to simply acting as agents of corporate policy, [who] may inspire or remind employees that they can make the difference in an organization without a formally adopted CSR culture" (p. 41). This should not be seen as negating the need for an on-going code of ethics training program throughout all levels of an organisation, however. Given that the vast majority of EGM operators in NSW are SMEs, their role in developing a socially responsible culture throughout their business is paramount. Accordingly, all staff throughout the organisation need to adhere to ethical and CSR practices, for example by having staff who seriously look out for, and, where appropriate, are willing and empowered to intervene to protect problem gamblers from themselves.

Legitimacy

Institutional theory postulates that organisations influence, and are influenced by, society and that a 'social contract' between the two entities exists. Organisations therefore, in order to develop or protect their legitimacy, try to ensure they have policies, processes and practices that meet societal expectations (Hoque 2005). As a result of the centrality of this concept, legitimacy theory has emerged as an important area of scholarly research. According to Brinkerhoff (2005), three types of organisational legitimacy exist: normative; pragmatic; and cognitive, with Patten (1991) stating that the "concept of economic legitimacy was, until recent years, largely the only constraint placed on business by society: (p. 298). Dowling and Pfeffer (1975) state that when the social values of an organisation are congruent with the "the norms of acceptable behaviour in the larger social system of which they are a part", organisations achieve legitimacy (p. 122). Suchman (1995) found that many researchers refer to the term 'legitimacy' but very few define it. Accordingly, he develops a definition of organisational legitimacy: "Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (p. 574).

THE STUDY

This study entails a multi-case, multi-site, case study to understand the motives (or lack thereof) of electronic gaming providers to act in a socially responsible manner. Our research question was: ***To what extent do operators in the gaming industry consider that they are socially responsible in terms of their marketing of EGMs?***

Staff of electronic gaming facilities, gaming consultants and government regulators, were interviewed in two jurisdictions, Nevada (USA) and New South Wales (Australia). A nine-item, open-ended questionnaire was developed to focus discussion on the salient issues during the interviews, whilst at the same time encouraging the respondents to talk freely and include other aspects they felt were important.

Table 1 indicates the location, category and number of respondents interviewed at each jurisdiction.

Table 1: Respondent Classification

Location	Category	Number of Respondents	Organisation Size
Reno (Nevada)	Gaming consultant and gaming conference organiser	1	SME
Las Vegas (Nevada)	Gaming consultant	1	Individual
Las Vegas (Nevada)	Gaming Machine Manufacturers	4	Large
Las Vegas (Nevada)	International Casinos	7	Large
Las Vegas (Nevada)	'Locals' Casinos	2	Large
Lake Tahoe (Nevada)	Gaming Machine Manufacturer	1	Large
Lake Tahoe (Nevada)	Problem-Gambling Consultant	1	Individual
New South Wales	Gaming Legislators	3	Large - government
New South Wales	Gaming consultants	6	Individual
New South Wales	Gaming Machine Manufacturers	2	Large
New South Wales	Casino	1	Large
New South Wales	Hotels (Pubs)	5	SME
New South Wales	Registered Clubs	4	SME

Source: Adapted from Buchanan et al. (2009), p.86

METHOD

The research method adopted in this paper synthesises two accepted methods of analysis: Grounded Theory (Glaser and Strauss 1967) and Case Study (Yin 2009).

Grounded theory "is an inductive, theory discovery methodology that allows the researcher to develop a theoretical account of the general features of a topic while simultaneously grounding the account in empirical observations or data" (Martin and Turner 1986, 141). Grounded theory provides a detailed, rigorous and systematic method of analysis, which has the advantage of reserving the need for the researcher to conceive preliminary hypotheses, thus providing greater freedom to explore the research area and allow issues to emerge (Glaser 1978; Glaser 1992; Glaser 1998; Glaser 2001; Bryant 2002). As a consequence, grounded theory is useful in providing rigorous insight into areas which are relatively unknown by the researcher.

The benefits offered by grounded theory include the method's capacity to interpret complex phenomena, its accommodation of social issues, its appropriateness for socially constructed

experiences, its imperative for emergence, its absence from the constraints of *a priori* knowledge, and finally, the method's ability to fit with different types of researchers.

Although grounded theorists emphasise the importance of an inductive approach (see for example the seminal work of Glaser and Strauss 1967), it is generally accepted that no researcher goes into the field totally devoid of *a priori* experiences (Goulding 2005). This paper does not purport to adopt grounded theory as it is proposed by Glaser and Strauss, rather, for reasons of necessity, purposive sampling has been adopted, in place of the grounded theory approach to select participants progressively through 'theoretical sampling' (Glaser 1978; Suddaby 2006).

The middle ground approach taken by Glaser and Strauss (1967) between the extremes of rigid positivism and the post-modern approach of constructivism, best describes the ontological and epistemological philosophies of this study. Postpositivism is a term that also appears to amalgamate the belief that an external reality exists which can be discovered ("*valid* belief") and the belief that "knowledge is inherently embedded in historically specific paradigms and is therefore relative rather than absolute" (Patton 2002, pp. 92-93, italics in original). The inescapable influence of hermeneutics is also acknowledged, in that all analysis and meaning generated from, for example, interviews, is interpretive in the sense that different people from different backgrounds, and/or using different methods but using the same texts, would arrive at different meanings. This influence occurs even when following the more positivistic stance of case study researchers such as Yin (2009).

A case study is "an empirical enquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (Yin 1989, 23). Case studies allow the researcher the opportunity of explaining the causal links in real-life interventions that would be too complex for surveys or experimental strategies (Yin 1989, 25). The method is most appropriate when there is a desire to find broad definition, rather than narrow discovery (Yin 1993). Case study research is primarily about particularisation. When responses or issues link across multiple cases, as opposed to a single case, generalisations can be drawn: "valid modification of generalization can occur in case study" (Stake 1995, 8). In terms of interpretation of data, Stake (1995) asks whether it is the researcher's or the respondents' interpretation that is being reported, although it is accepted that it is the qualitative researcher's interpretation that takes precedence, with the importance of maintaining 'multiple realities' being emphasised. Continual and "progressive focusing" is recognised in that "initial research questions may be modified or even replaced in mid-study by the case researcher", as initial observations lead to renewed inquiry and further explanation (Stake 1995, p. 9). Researchers draw their own conclusions from observations and other data. These in turn lead to assertions, which lead to speculation or theory.

The process of case study research can be intrinsic (we need to learn about a particular case), and/or instrumental (when we have a research question and we need to gain a general understanding). When several cases are studied, each case might be instrumental in terms of learning about, for example, the effects of regulations on the gaming industry and therefore the coordination between the different cases. This research might therefore be referred to as a "collective case study'.

Data were collected through these combined methods, and while analysis was undertaken using NVivo, the analysis was guided by these methods. Thirty-eight in-depth interviews were undertaken with gaming operators and gaming machine manufacturers in both the Nevada (USA) and NSW (Australian) jurisdictions during 2005-2006. Interview data were augmented through observation, resulting in a rich collection of data. The data were coded and initially entered into 'nodes' within the NVivo program. A pre-defined set of themes was derived from topic areas of the interviews. Each theme then became a node. As each interview was read, additional themes were identified and nodes created for each theme. The nodes were fleshed out as data were extracted from each interview referring to the same theme. Thus a range of themes was created as a result of going through the data and coding according to themes within each transcript. Once all data had been placed into various nodes, themes were checked through the matrix function within NVivo to ensure that the various themes were distinct from each other and that there was no redundancy.

Further analysis of emerging themes resulted in a conceptual model. This is discussed in the next section.

ANALYSIS AND FINDINGS

A conceptual model which integrates analysed data from the interviews and observations with related literature is exhibited in Figure 1. This model postulates the theoretical finding that in order to be viewed as legitimate, EGM operators need to ensure that: a) socially responsible programs are implemented throughout their businesses, (b) they adhere to the law, and (c) they satisfy a range of stakeholder expectations (or at least come to some mutually acceptable compromises). Further, in order to be considered socially responsible, firms are expected to act beyond economic imperatives and legal requirements, by adopting ethical programs and voluntarily donating a percentage of their profits to charitable causes (refer to Carroll's 1991 CSR Pyramid).

As can be seen in Figure 1 below, a number of stakeholders have been identified, with media influence on government policies being one example of their importance. Gambling issues in turn influence community, media and government perceptions of social responsibility, such as whether technological advances of EGMs with their flashing lights and seductive sounds leads to increased enticement/inducement for the player. A number of respondents stated that their patrons preferred EGMs with higher volatility and many stated that a higher return to player (RTP) certainly adds to the appeal. Controversy exists as to whether EGM expenditure should be viewed as part of the larger social issue of problem gambling, or whether it can be legitimately viewed as entertainment for the majority of people who enjoy EGM play without any associated addiction or resultant problems. Certainly the vast majority of academic literature and media stories (the latter at least in NSW) focus on issues of problem gambling. Observation in Las Vegas however highlighted to one of the researchers that a number of EGM players appeared to be enjoying the process as a form of entertainment, with one patron in a wheel chair who otherwise might be socially isolated or at least perhaps have less opportunities to go out and be involved in a wider socially constructed environment. Although evidence points to the majority of EGM profits being derived from at risk and/or problem gamblers (Livingstone and Woolley 2007, Symond 2007), as an overall indication showing perhaps the predominance of adults who enjoy EGM play without any reported problems is the Productivity Commission report (1999), stating that approximately 2% of the adult population in Australia exhibit symptoms of at risk or problem gambling. One could argue therefore, based on these statistics, that the majority of adults (98%) can enjoy EGM play as a form of entertainment, similar to other forms of entertainment expenditure such as going to a concert, show, nightclubbing etc. Because of a higher risk of addiction to EGM play than to many other forms of entertainment, however, EGM operators need to ensure socially responsible policies, processes and practices are an integral part of their organisation.

A number of factors were also conceptualised which highlighted the importance of legitimacy in the gaming industry. One such concept is the influence of historical roots:
New South Wales, like Nevada, owes its gambling origins to criminal involvement (for example, Mafia chiefs such as Meyer Lansky and Bugsy Siegel were major investors in Las Vegas casinos and hotels). The 1973 Moffitt Royal Commission of Inquiry into Organised Crime in Licensed Clubs in New South Wales found a significant risk from criminal elements (Kirby 2007). Part of the evidence put forward during this Royal Commission stated that Bally Australia was "alleged to have used intimidation and bribery to convince registered clubs in NSW to buy Bally poker machines" (Kretschmar 2004). In 1966 Nevada gained its respectability largely due to Howard Hughes, with his buying of casinos and large tracts of land in Nevada (Kilby et al. 2005) and also to the corporatisation of casinos. Unlike their counterparts in NSW, the press in Nevada rarely focuses on the negative aspects of gaming activities, with one respondent attributing this to the fact that there are many more murders to report on than there are in NSW! The NSW gaming industry is considered to operate in the most heavily regulated jurisdiction in the world. Certainly, the introduction of the Registered Clubs Act in 1976, the Casino Control Act in 1992, the Responsible Gambling Act of 1999 and the Gaming Machines Act of 2001 has

meant that NSW EGM operators have far less opportunity to practice voluntary socially responsible activities than their largely self-regulated counterparts in Nevada. That being said, however, our analysis of the interviews, along with official published government documents and the media, found that, overall, gaming operators in Nevada appear to be much more aware of, and to implement, socially responsible activities than do many operators in NSW. Regardless of the current situation, it could be argued that organisations that have their genesis in criminal associations, such as the gambling industry, have a substantially more difficult time in terms of gaining legitimacy in the eyes of its stakeholders, than do organisations without such illegal connections.

Figure 1: Conceptual Model
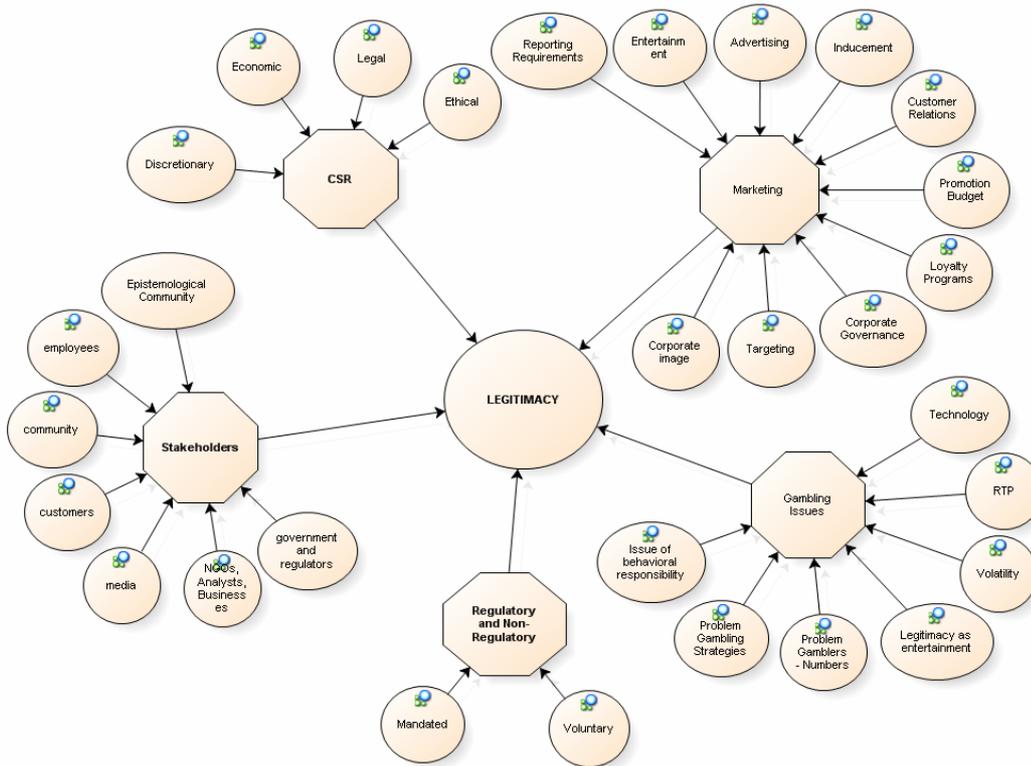
In spite of identified differences between the Nevada and New South Wales jurisdictions, the conceptual model (Figure 1) can be applied to both. The main issues, which were then developed into the nodes that collectively form the conceptual model, were gleaned from interviews, observations and the literature from both jurisdictions. Although the nodes/issues apply to both markets and possibly to other jurisdictions, it is postulated that the degree to which they are an important influence varies from market to market.

DISCUSSION

Using NVivo to facilitate organisation of the data has been extremely beneficial in this study. Patterns and themes were more easily identified and different categories and nodes were developed as part of the process of analysing the data. Memo links proved a valuable aid in recording insights gained from the data. To illustrate, the following excerpt from the 'CSR – ethical' node (based on Carroll's (1991)

four components of the CSR Pyramid, namely economic, legal, ethical and discretionary/philanthropic – see Figure 1) notes under the 'Memo Links' feature is provided:

> 1) Hotels focus a lot on being popular with the NSW Government. They throw lots of money at the Government (political donations).

> This statement indicates what could be considered an unethical approach. Political donations are very much driven by 'self-interest'. This perhaps satisfies the 'economic' component of CSR (see Figure 1) in the sense that pubs (and clubs), through political donations and lobbying, are seeking to 'protect their turf' - i.e. profits. Given that political donations and political lobbying are not illegal, the 'legal' component of CSR (see Figure 1) is also met. But it would appear that, in spite of both components being met, these actions (political donations and lobbying) are a long way from being ethical.

Another memo excerpt that describes the researcher's impression of one of the luxury casinos on the Las Vegas Strip:

> Wynn had just been opened a few weeks prior to this interview. Its decor is sumptuous - top label retail shops, a number of 5 star restaurants, fine art throughout the casino, impressive gardens and a small lake, and extravagant yet tasteful decor. The gaming and other staff wore 'tasteful' uniforms, with none of the short dresses, low necklines and high heels associated with many of the other casinos. Wynn also has a helipad and separate entrances for its exclusive bedroom suites in order to offer discretion and anonymity for those guests so requiring it. It is the latest casino developed by Steve Wynn. His other casino, Bellagio, is also opulent.

> This memo extract illustrates the 'Inducement' component of our conceptual model. Patrons may be enticed to stay and gamble longer in premises that: (i) have alluring staff, (ii) offer complimentary beverages and/or (iii) have luxurious surroundings

Electronic storage of the interview transcripts allows ready access to anecdotal statements which provide empirical support for theoretical emergence and conceptualisation. For example, a number of respondents, in relating to the NSW context, expressed their strong opinion that EGMs should only be allowed in registered clubs, not pubs or bars. A probable explanation for this is that, ostensibly at least, NSW Registered Clubs operate on a 'community', not-for-profit mandate, whereas many bars in NSW are privately owned, with much media reporting of publicans being made 'overnight' millionaires as a result of the legal introduction of EGMs into pubs in 1997.

POSSIBLE LIMITATIONS AND BIASES

Many quantitative methods in marketing adopt convenience sampling. Authors such as Patton (2002) argue that, unlike qualitative methods such as case study research which are purposeful, strategic and "can yield crucial information about critical cases…., [c]onvenience sampling is neither purposeful nor strategic" (p. 242). It is recognised however that "[q]ualitative inquiry is rife with ambiguities" (ibid, p. 242) and one of the challenges for qualitative researchers to is to have a high degree of tolerance with this aspect. Whilst it is acknowledged that triangulation ideally uses a combination of qualitative and quantitative data, the interview data for our study was supplemented by observational data, thus satisfying one form of triangulation. It is considered highly unlikely that one of the limitations of observational data, being that of the observer affecting the observed's behaviour, occurred due to the fact that the researcher did not intrude into people's 'space'. A further limitation cannot be overlooked however, in that "the selective perception of the observer may distort the data" (ibid, p. 306). In order to minimise this limitation, interview data were examined by both researchers. Patton (2002) lists a number of "[i]nterview data limitations [which] include possibly distorted responses due to personal bias, anger, anxiety, politics, and simple lack of awareness since interviews can be greatly affected by the emotional state of the interviewee at the time of the interview. Interview data are also subject to recall error, reactivity of the interviewee to the interviewer, and self-serving responses" (p. 306). Two important factors serve to minimise these limitations, in that the interviewer used the same list of nine topics for

each interviewee and, as an 'outsider', was not aware of any organisational politics at play. Furthermore, the researcher can emphatically emphasise that no 'anger' or 'anxiety' was present before, during or after the interviews. Recall error was minimised through the use of detailed and rigorous note-taking. Further, the researcher does not consider any biases existed prior to, or during the interviews, in relation to a preference for a 'pro' or 'anti' gambling stance.

CONCLUSION

This paper has developed an empirical exploration of the ethical issues of EGMs in two ways. Firstly, we have developed a grounded theoretical model which addresses the concerns of gambling operators and other stakeholders such as the government, media, NGOs and community groups with regard to the ethical and societal issues surrounding electronic gambling. Legitimacy theory relates to the fact that organisations affect and are in turn affected by, the societies within which they operate, whereby a 'social contract' is developed. This social contract is largely non-controversial when the values of the organisation are aligned with the values of society. This would appear not to be the case with gaming operators and the societies within they operate, perhaps particularly so in NSW. Further, we have postulated that industries which have their genesis in organised crime have a substantially more difficult time gaining legitimacy in the eyes of their stakeholders. Secondly, and most importantly, we provide insight into the use of NVivo for analysing social and societal marketing. It is hoped that this paper may lead researchers who are involved in this field of research to adopt similar practices with computer assisted analysis.

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