A SOCIO-LEGAL RESEARCH ON PERSONAL DATA PROTECTION AND PRIVACY PRACTICES OF MALAYSIAN ORGANISATIONS.

Abdul Samad Abdul Ghani[1]

University of Malaya

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[1] Lecturer, Faculty of Law, University of Malaya, Kuala Lumpur, Malaysia.
abdulsg@um.edu.my

This paper describes a qualitative research that was conducted as part of a PhD research on online privacy and the law. The research was conducted on selected public and private organisations in Malaysia that collect and/or process personal data online. The method used is multi-case study and the data are collected by semi-structured interviews. The data are analysed with the aid of a computer assisted qualitative data analysis software (or CAQDAS). This paper will also describe the socio-legal[2] significance of this qualitative research as well as lessons learned from conducting the study.

Research Background

Insufficient legal protections of information and communication privacy in Malaysia could negatively affect the sustainability of its electronic commerce and hinder the growth of the MSC (*Multimedia Super Corridor*) project. From a global perspective, an inadequate legal framework for the protection of online privacy may inhibit the ability of local ICT (information and communication technology) based products and services to compete in cyberspace. A perceived lack of online privacy protection could lower commercial credibility and trustworthiness of Malaysian online products and services. Foreign and especially Western consumers and businesses as well as local users who are knowledgeable about their rights to privacy online would avoid online services that do not exhibit sufficient privacy protection or guarantees. Legal developments in this area is therefore crucial but it also important to find out what kind of regulatory framework that can effectively support online privacy, at least as far as Malaysia is concern.

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[2] '*Socio-legal scholarship is an approach to the study of law and legal process which embraces not only empirical study, but also historical study and theoretical analysis designed to explain how and why particular rules of law or legal process have developed and/or the impact of those rules in a rapidly changing society.*' Partington,M.(1995); see also Thomas, P.A. (Ed.) (1997); Banakar, R. and Travers,M. (Eds.) (2005)

Research theoretical basis

This qualitative research was undertaken as part of a doctoral research in the field of law. The main thesis seeks to explain the nature of governance[3] in cyberspace in relation to the protection of privacy[4] with specific reference to Malaysia. This qualitative research is preceded by a construction of theories on governance and privacy in cyberspace. These theories provide a theoretical framework for the main research. A synthesis of the theories postulates that, under a condition of insufficient legal compulsion or obligation, organisations would reflexively generate rules and measures to protect online privacy of their users/customers. This behaviour – often described as self-regulation - would significantly contribute towards the governance of privacy in the online environment. Various non-legal modes of online privacy protection as well as multiple actors may coalesce towards a socio-cybernetic network-like governance[5] of privacy protection.

Research objective

A crucial aspect of the main thesis requires juxtaposing the theoretical framework onto online privacy practices in Malaysia. A field research utilising qualitative research methodology need to be conducted to explore and analyse the methods, rules and rationales that are used or applied by organisations in Malaysia to protect the privacy of their user/customers online. The purpose of the field research is to describe the landscape of governance of privacy protection as practiced by Malaysian organisations and to highlight specific or unique aspects of their practice. Corollary to this, it is also necessary to analyse the rationale, motives and perspectives of these organisations in implementing various online privacy protection strategies and techniques. The research also seeks to explore organisations attitude towards a legal regulation of their privacy and data protection practices. In other words, the presumptions in the theoretical framework need to be grounded in findings from this field research.

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[3] A workable definition of governance according to Hirst, P. and Thompson, G., (1995) is a 'function that can be performed by a wide variety of public and private, state and non-state, national and international, institutions and practices' (p.422)

[4] Privacy is hard to define but the concept oscillates between the notion of 'the right to be left alone'(Justice Thomas Cooley (1888)) and the right to control access to ones information and private life. (see Westin,A . (1970))

[5] see Rhodes, R.A.W. (1997); and Kooiman,J., (1993).

Research methodology

Why qualitative research methodology?

As this field research is essentially exploratory, the qualitative research methodology[6] is preferred to quantitative research methodology. In particular, the research need to uncover not only the various methods of privacy protection that are employed by these organisations but also the process, motives, rationale, prejudices and values that underline their decisions. Qualitative research approach is more suitable because it enables the researcher to be more emphatic to the respondents' viewpoint as he is able to probe the data reflexively during data collection and subsequent analysis. The researcher is enabled by this research approach to explore and examine complex meanings without being constraint by statistical logics. This approach also enable in-depth understanding of respondents peculiarity, uniqueness and subjectivity. (Gillham, 2000) According to Burns (2000), 'reality cannot be subsumed within numerical classification'.

On a more practical aspect, the qualitative methodology is chosen because it allows for a more manageable data collection process. In this particular case, the researcher does not have the luxury of time as he was obliged to complete the main doctoral research within a prescribe time period. The qualitative approach enable the researcher to conduct intimate face to face interview and is therefore able to adapt and expand the interview questions according to the different nature of the respondent interviewed. In other words, qualitative research method has the advantage of being expansive and serendipitous.[7]

In addition, the subject matters – the notions of privacy and governance in cyberspace – are concepts that are still in the process of development. The purpose of this field research is not simply about testing the proposed theoretical framework but also to contribute to the development and refinement of the relevant theories by grounding them in observed data. A deductive prior hypothesis

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[6] Qualitative research is defined as "any kind of research that produces findings not arrived at by any means of statistical procedures or other means of quantification." Strauss,A and Corbin,J (1990) p.17

[7] see Ezzy, D., (2002). p.86; Coffey, A. and Atkinson, P. (1996). p.155; Miles, M. B. and Huberman, A. M., (1994). Strauss, A. and Corbin, J., (1990).

approach as conducted through a quantitative research method may not have this advantage. But this does not mean that the research is altogether inductivist or 'grounded'[8] where the researcher comes *to the research without any presumption or orienting ideas*'. (Silverman, 2002). This is because the limitation of time for the research does not allow for such an expansive approach. Hence, a 'simultaneous process of deduction and induction' during data collection and analysis is adopted.[9]

More specifically, and related to socio-legal research in general, the research need to understand how real actors are contributing to the 'development' of governance and protection of privacy in cyberspace so that answers can be provided on the role of law and formal institution in governing human behaviours in cyberspace.

Multi-case study research method
Multi-case study research method[10] is chosen because it enable the research to explore the means and methods of online privacy protection that are adopted by various types of organisations. The case study method is also appropriate because the research is not only looking at some level of generalisation but also the subjectivity of each case. In other words the a multi-case approach is adopted because it is assumed and expected that the cases would show heterogeneous instead of homogeneous findings. According to Miles and Huberman(1994),

> *One aim of studying multiple cases is to increase generalizability, reassuring ...that the events and processes in one well-described setting are not wholly idiosyncratic. At a deeper level is to see processes and outcomes across many cases, to understand how they are qualified by local conditions, and thus develop more sophisticated descriptions and more powerful explanations.*

It is critical for this research to seek uniqueness and peculiarity beyond simplified generalisation. Governance is complex and therefore, its study requires not only a description of the whole but also explanations of the parts and their

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[8] See Strauss,A. and Corbin,J. (1998)
[9] see Ezzy, D., (2002). p.9
[10] see Gillingham, B. (2000a)

interconnectivity. The complexities behind governance and the way privacy is protected in cyberspace can be appropriately explored by cross-case analysis. Hence, techniques and modes of governance in each case can be compared and contrasted.

Semi-structured interview

The field data are collected through semi-structured interviews. These interviews were conducted in Malay and English but the transcript requires their translation into English for purpose of quotation and recognition by CAQDAS.

This data collection method is adopted for three main reasons. First, and as described by Mason (2002) qualitative interviewing is about 'in-depth, semi-structured or loosely structured forms of interviewing' that relishes informal and interactive dialogue but at the same time structurally 'fluid and flexible' and guided by themes and topics that emerged from the main theoretical framework. A semi-structure interview avoid constricting questionnaires and enable a conversational and dialogic interaction which encourage freer and further exploration of interviewees viewpoints. For this purpose the interview schedule is based on an open inquiry framework that is derived from the theoretical framework of the field research. In this manner the interview schedule resembles a framework of inquiries that revolves around key issues this research is seeking to explore and understand.

The second reason is that a semi-structured interview is crucially relevant to the objective of the research that is to gain in-depth exploration into the opinion, perspective and process that are within the knowledge of a particularly narrow group of people. More specifically, the nature of the interview employed here is known as 'elite interview' because the interviewees are situated in 'a special or authoritative position' and are able to provide detail information as well as 'insights' into the matters under inquiry. (Gilligham,2000b) A semi-structured interview has the advantage of providing the researcher with the required information as the interviewees are subjected to questioning in their very own contextual setting. A semi-structured interview provides a conduit for facts findings as well as subjective and unique information from each respondent particularly at a more personal level. (Wengraf,2001). Data collection became a very interactive and reflexive process as the interviewer can seek further elaboration from the interviewees each respondent. (Mason, 2002, p.65-66) Although, it is noted that the

focus of the interviews was at gaining information per se and thus, interviewees demeanour or behaviour during the course of the interview was not relevant.

The final reason and as mentioned above, the PhD research schedule only allocated two months for gaining access to respondents and the actual interviews. Hence, semi-structured interview provide the most efficient mode of gaining data from the respondents. More time has to be allocated to analyse and present the data as their completion period (as discovered later on in the course of the research) was harder to forecast/estimate.

Sample selection

The method of sampling adopted is 'purposeful sampling' because the research is deliberately focussed on respondents of specific nature and, consequently, necessary to keep the sample size small to ensure the interviews are rigorous, efficient and manageable within the limit of time and resources. In addition, it is not the key objective of the research to universalised the findings but rather to produce and explanation that is typical of the groups but at the same time heterogeneous. (Maxwell,1996). Case studies require the selection of respondents or cases to be based on the theoretical framework of the research rather than randomly selecting a given population. (Silverman,2000, p.102). [11]

The specific population of this field research are organisations in Malaysia that collect and/or process personal data online for their own organisational purpose. For the purpose of data collection and analysis, the population is stratified into public and private organisations. The two groups are further stratified in order to target organisations of specific characteristics. This sub-stratification would ensure that the research will cover peculiarities and heterogeneities beside commonalities and homogeneities. In addition, sampling decision has to be reflexive to the access granted by potential respondents.

In this research, potential respondents were sought over the Internet through the search engines such as cari.com.my,[12] yellowpages.com.my,[13] and catcha.com,[14]

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[11] Silverman though, use the term 'theoretical sampling' instead.
[12] URL at http://www.cari.com.my
[13] URL at http://www.yellowpages.com.my

google.com.my[15] and malaysia.yahoo.com.[16] Potential respondents were also located through literatures (books, official documents, periodicals and newspapers). Public organisations in particular, were selected by reference to the MSC E-Government initiative[17] where a number of lead-agencies have been designated to pioneer E-Government applications. Private organisations are substratified into profit, non-profit, commercial and non-commercial organisations. There are also further stratified into specific type of organisations or Internet-based services like banking, retail, education, entertainment, relational services or web-communities.

The interviewees from these organisations has to be individuals in specialised positions that enable them to understand the methods and measures that are taken to protect privacy and personal data of their clients, customers or users as well as the regulations, policies and values that are adhered to by their organisations. Their insights are crucial for a deeper understanding into the way privacy is currently protected. An understanding of each organisations nature of business and their handling of personal data would provide an insight into their attitude, motivation, decision-making process and practices in relation to users' or customers' personal data.

The interviews was finally conducted on fifteen respondents. This sample size has been dictated by the need to keep data collection manageable within a limited time frame. It is postulated that that private organisations in Malaysia are less willing to give access because they are cautious about sharing information on their data and privacy practices to researchers despite a promise to conceal their identity. The main reason is probably fear of adverse publicity but it could be compounded by a lack of understanding and insecurity on the part of these organisations about their data and privacy responsibilities. One prominent electronic banking operators for example, refused access on the ground of 'public policy'. On the other hand many small brick-and-mortar operators relies on third parties web administrators to run their websites and Internet services.

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[14] URL at http://www.catcha.com
[15] URL at http://www.google.com.my/
[16] URL at http://malaysia.yahoo.com
[17] see Abdul Karim, M. R. and Mohd Khalid, N., (2003); Ariff, I. and Chuan, G. C., (2000)

<u>Respondent Organisations and Position of the Interviewees</u>

Population	Nature of business	Coded name of organisation (case)	Person interviewed
Public organisations	Government agency and organisation	Government Department 1	IT specialists (2)
		Government Department 2	IT specialist
	Public university (Education)	PublicU	IT specialists (2)
Private organisations	Private University (Education)	PrivateU 1	IT specialist
		PrivateU 2	IT specialist
	Eletronic Banking	O-Bank	IT specialist
	Airline industry	AirlineCo	IT specialist
	Internet auction portal	AuctionWeb.com	IT specialist
	Retail and supermarket loyalty card	J-Store Card	IT specialist
	News Media	Cybermedia.com	Business manager
		NowAsia.com	IT specialist
	Internet service provider	C-ISP	IT specialist (1) and legal manager (1)
		T-ISP	IT specialist
		M- ISP	IT specialist
	Non-profit private organisation	MyKomuniti.com	IT specialist

Data Analysis

Data analysis is the most crucial aspect of this qualitative research. Qualitative data analysis requires not only capturing and then arranging and describing the data in a coherent manner but also, and more significantly, to interpret the findings in the lights of the theoretical framework. The most significant problem with qualitative data analysis is, as described by Patton (1990),

> *"...there are no absolute rules except to do the very best with your full intellect to faily represent the data and communicate what data reveal given the purpose of the study. ... qualitative analysiss ultimately depends on the analystical intellect and style of the analyst. The human factor is the great strength and the fundamental weakness of qualitative inquiry and analysis."* (p.372)

Coding

The first practical step in data analysis is to transfer the transcripts of the recorded interview into the ATLAS/ti CAQDAS. By using ATLAS/ti the transcripts can be coded. The codes for data analysis are created by reference to the problem question, theoretical framework[18] and interview schedule. At the initial stage, a table of free codes are created based on concepts, key ideas, themes and family. (However, further codes or in vivo codes can be added during the scrutiny of the data. This function is the advantage of using caqdas/ATLAS.) The creation of this table is supported by a mind map which illustrate connections among the key ideas, concepts and themes. From the table, a list of code is created and each code is give a description. ATLAS/ti enable the code list and description of the code to be included in its 'hermeneutic unit'. (Muir,1997) Code description is important in order to avoid confusion to the researcher as some codes may have close similar meaning.

Part of coding preparation also requires a thorough reading of the transcripts in order to 'feel' and acquire a bird eye view of the data. In this manner, coding would not be too mechanical and compartmentalised. Instead, coding should formalise and extract significant data from what is already sensed or detected from the transcripts. The virtue of using a CAQDAS is that coding can be done fluidly across units of transcripts or cases and consequently it facilitates cross-case analysis.

The coding exercise is already a fundamental part of the analytical process because coding requires thinking, interpretation and conceptualisation of the codes. The data has to be disassembled and re-assembled in a systematic manner in such a way that '*produce a new understanding that explores similarities and differences, across a number of different cases.*'(Ezzy,2002, p.126) The coding exercise is a combination of content and thematic analysis. Although coding is predominantly content analysis and hence deductive and prescribed by the main list of codes, emergent themes can be adduced from the data and then coded as open codes or *in vivo* codes. This is a very useful and convenient facility in ATLAS/ti.

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[18] According to Yin, the process of data analysis, as in the case of research design, should pivot around theoretical propositions - Yin, R. K. (2003). This view is commonly shared by Silverman; Ezzy; Miles and Huberman; and Coffey and Atkinson

For the purpose of content analysis, the framework of inquiry seeks to identify the methods of privacy protection that are adopted by the respondents as well as the factors that influence their decision to do so. The main code list covers three main areas namely: respondents' internal (or self-motivated) initiatives to protect personal data and privacy of their users/customers; respondents practices that impact users/customers' privacy; and respondents' knowledge, motives and level of awareness in relation to these issues and practices. During the coding process, some of the codes were refined or modified. For example the initial code of privacy practices are divided into five codes: motive, negative non-technical practice, negative technical practice, positive non-technical practice, and positive technical practice. Added open codes or *in vivo* codes included codes on the nature of external governance and the source of respondents' awareness about privacy issues and obligations.

Interpretation and presentation

The coded data are then analysed by first assembling the relevant quotations according to the specific codes. The data in each codes are then summarised by reference to the theoretical framework and the interview questions; but at the same open to new findings or information. Thus, code summarising can be complex as it would require analysing and juxtaposing the data against external information and the researcher's pre-existing knowledge.

However, the main purpose of summarising the findings according to the codes is only preliminary, but not less important, to the actual activity of analysing the totality of the findings. The data from the summary has to be interpreted and re-contextualised. According to Patton (1990, p.422)

> *Interpretation means attaching significance to what was found, offering explanations, drawing conclusion, extrapolating lessons, making inferences, building linkages, attaching meanings , imposing order, and dealing with rival explanation.*

The first level of analysis is to extract from the code summaries (textual analysis) information that are relevant to the theoretical framework. This information include the manners and means by which the organisations are protecting the privacy of their online users. Among of the information yielded is the type and use of technical and non-technical security measures to protect personal data in the hand of

respondents (either data during transaction and process or in storage). This information provide the first layer of analysis – being information that can be immediately extracted and compiled from the data.

The next layer of analysis can be complex such as in deriving the respondents' approach towards laws and privacy and delineating their motives in implementing the diverse privacy measures. The interpretation process need to 'read' into the reasons given by the respondents. For example one respondent reasons for adopting technology is because it is a 'company policy' to do so and it is commercially beneficial to the organisation. It appears therefore that business motives or market pressure have a very important influence on organisations decision to implement privacy protection technology.

The data interpretation exercise leads to further complex analyses, that is adducing emergent themes from the data. Although this is partly an exercise of generalisation, emergent and subjective information or peculiarities need to be highlighted and explained in the context of the whole data and the theoretical framework. For example, the overall data shows that security measures differ between government and profit-based organisations, and between smaller and bigger private organisation. It appears that security standards and auditing between Internet service providers and banks are more rigorous than that of government agencies and smaller private organisations. This aspect can be explained internally to the data when interviewees make references to the cost of implementing security as well the value that is attached to consumer sensitivity on this matter. The disparity can also be explained by reference to the lack of coherent legal standards that could impose a more uniform security responsibilities upon these types of organisations.

Overall, the process of analysis and interpretation requires the data to be re-contextualised and presented thematically. (Coffey and Atkinson,1996) The re-contextualised data can be subjected to interpretation with the object of building explanation about the cases. (Yin, 2003). As the method employed here is a multi-case study, a cross case analysis requires an approach that broadly aims at generalising the data but at the same time accommodating the subjective condition of each cases. (Miles and Huberman, 1994) Coffey and Atkinson (1996) advocate an approach to analysis that moves beyond the data 'towards generalisation and theorizing'.(p.140) In order to arrive at generalisation, a 'variable–oriented

strategies' as proposed by Miles and Huberman (1994), are applied to put the cluster of coded data into new themes. By this way, not only that the different cases can be compared and contrasted, a cross-case synthesis can be achieved from the emergent facts, patterns and causal connections.

The recontextualised data are then presented thematically. The themes are separated into two main areas, the first covers modes of governance or the technique and strategies that are adopted by the organisations to protect privacy and personal data. These are divided into

i.   Internal compliance initiatives.

ii.   Compliance with data protection principles .

iii. Organisations practices towards the users.

The second theme covers more nebulous issues of governance being: the respondents' perception and awareness of privacy and data protection in cyberspace; their knowledge or awareness of data protection principles; their perception and/or knowledge of online privacy; and their perception of the role of law in protecting online privacy.

As the overall analysis as presented in the original thesis covers considerable page space, the findings and analysis of the qualitative data are summarised for the purpose of this paper. One of the main concern about privacy in cyberspace is that legal inadequacies (where laws are either fragmented or their enforcement weakened by the nature of cyberspatial interaction) would result in widespread abuse of privacy by organisations that collect and/or process personal data online. However, the data from this qualitative research suggest that such organisations are also responsive to online users interest in privacy, albeit at a varying and indeterminate extent. Most interviewees are aware of the demand for privacy in online interaction largely because they too - being knowledgeable in IT – would want the same privacy protection. This perception is also supported by deeds as all respondent organisations have put in place various strategies and techniques to protect the privacy of their online users/customers. All of the private organisations interviewed are aware of the adverse commercial effect to their business if they are perceived to compromise privacy protection. In addition, IT professionals in the respondent organisations are driven by a perception that protecting privacy is an

important norm in cyberspace. Government respondents also indicate a certain degree of concern for their users privacy, although these concerned are entwined with and often obscured by government own IT security requirements set particularly by MAMPU.[19]

However, the diverse and incoherent privacy protection measures and policies that are implemented by the respondents show that the landscape of privacy protection is irregular. This condition is largely caused by a do-it-yourself approach to privacy protection that is often based on a patchy and ill-informed knowledge of privacy issues and obligations. In addition, these organisations are not properly guided by any laws or sectoral self-regulatory standards. Another concern is that there is a risk that privacy is perceived as a commercial rather than a human right imperative and consequently the organisations' approach to privacy may be based on pragmatism rather than principle. Consumer apathy towards their privacy interests may motivate organisations to take minimal measures to protect their privacy. This is especially the case if privacy protection measures – especially those that involve high technological investments - are perceived as expensive and negative to business competitiveness.

From a socio-legal standpoint, this qualitative research is significant for a number of reasons. The preliminary theory on governance, as formulated for the main thesis, suggests that the promotion of privacy in cyberspace requires developing laws that incorporates stakeholders and regulatory subjects in the process of rule development, compliance maintenance, and sanction delivery. The qualitative research found that most of the respondents prefer a legal or formal guidance as to their privacy obligations. There are concerns that self-regulatory approach could only lead to incoherent practices and may be abused for commercial competitiveness. At the same time organisations would like to participate in regulatory or governance process so that their interests can be protected. The research also found that organisations that collect and/or process personal data online can also play a fundamental role in the protection of privacy as they too are implementing various forms of privacy protection measures. In this manner, any legal development towards protecting online privacy in Malaysia ought to provide

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[19] Modernisation and Management Planning Unit under the Prime Minister's Department

for – as a core strategy – a framework that enhances the participation of actors that may influence the level of privacy in cyberspace.

But this law-based framework needs to have proactive institutions that could provide focal nodes by which organisations can coalesce in a network and polycentric fashion. The research found that many businesses in Malaysia do not have specific trade or business association including the ICT industry. Self or co-regulatory rule making presumed that internally-sourced compliance is more efficient. Top-down one-size-fits-all regulation is not a right course to take primarily because organisations may have peculiar characteristic and interests. Instead, self or co-regulatory approach – govern by legally entrenched principles – could be less business antagonistic and may enable rapid adaptation and higher compliance of rules by organisations.

In general, therefore, the qualitative research findings support the idea that a legislation on online privacy is an imperative not only on the principle of privacy being a right but also because organisations that are perceived to be threats to privacy are supportive of the idea. However, despite the notion that governance may be seen as a move away from formal and state-centred control, laws and formal institution remain an important cornerstone for a value-based approach to online privacy protection.

Conclusion

From a more personal point of view, an important lesson from undertaking this qualitative research for the first time is that qualitative research method is complex, serious, and engaging. In order to undertake a qualitative research a researcher need to be equipped with a clear conceptual understanding of its precepts. In fact, a design of a qualitative research from sampling to data collection, data analysis and presentation requires a thorough knowledge of the precepts of qualitative research methodology. The use of technologies like ATLAS/ti, NUDIST[20] or NVIVO, would be difficult unless the researcher understand the nature and demands of qualitative research methodology.

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[20] see Barry C.A. (1998)

A number of lessons can be drawn from this research process. First, it appears that getting access is very difficult and time consuming when the research objectives is received with resistance and mistrust from intended research subjects. It seems that, perhaps as far as research in Malaysia is concern, some 'connection' or 'third party introduction' could be very useful. A second lesson is that, interviews in qualitative research need to be loosely structured but conducted in a very conversational and flexible manner so as to earn the trust and openness of the interviewee. Malaysian interviewees seem to prefer a personal and less forthright approach. Hence, it is advisable to devote the initial portion of the interview to develop a rapport with the interviewee and the questions should be presented in a cordial fashion. Interview answers may also be indirect, and so it is important to reframe the question in order to obtain clarification.

The third lesson is that qualitative data analysis is an intellectually strenuous activity that requires a good immersion into the data and the ability to link the findings to the preliminary theories. However, a great advantage of qualitative data analysis is that the research may yield unexpected findings which may contribute significantly to the thesis. On this point, the assistance of ATLAS/t.i is invaluable because not only that it save the time to code, index and retrieve data, but also it enable a serendipitous approach to data analysis through open and *in vivo* coding.

Finally, the design and the execution of a qualitative research is interconnected to the final purpose of the research. In this case, as the data are to be analysed and presented for the purpose of a PhD thesis, the nature of sampling, data collection and analysis has to be tailored to the constraint of the main research itself.

Overall, qualitative research methodology is an invaluable tool in socio-legal research because rich and contextualised data as well as in-depth analysis are important in understanding the potential or actual impact of laws on society. Laws in modern society are often enacted or decided with little recognition of their effects on the legal subjects and consequently, their implementation can be impeded by resistance, evasion and manipulation. In depth analysis into the effects of laws or how they can impact society or a specific section of it is very important in order to avoid making serious shortcomings that could prevent effective application of the objectives of such laws.

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