

Designing Embedded Case Study Research Approach in Educational Research

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ABSTRACT

Despite the case study research method has been widely adopted in qualitative research, few scholarly articles addressed the comprehensive guidance on the use of embedded case study research design. This paper aims to contribute to the literature by demonstrating the use of embedded case study research design in qualitative research. A pseudo case was exemplified by exploring the relationship between a holding company and its subsidiary companies of a corporate group. What construct a case and the rationale for the case being studied is exemplified. The paper further outlines the research protocol, the procedure of inquiry, and the design of the embedded case analysis. A brief explanation of the context of the case enriches the understanding of the investigated cases.

Keywords: Embedded Case Study; Organizational Research; Qualitative Research; Research Method.

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INTRODUCTION

Our journal has been in its third year of publication. Since its inception in early 2017, hundreds of papers submitted through IJPTE's open journal systems fall under educational research flagship. Among those papers, however, the case study research design was rarely suggested as the approach of the research method, let alone an embedded case study research design. It is the IJPTE's Board of Editorial concern that Educational researchers distance themselves from adopting such design in their endeavour. While contemplating on fellow researchers' reason for not adopting case study research design in educational research, our editorial team considers the importance of guiding to design case study research pertinent to embedded case study research within an educational research context.

We acknowledge that case study research method has been widely adopted in educational research (Ary, Jacobs, Sorensen, & Razavieh, 2010; Cohen, Manion, & Morrison, 2018; Gall, Borg, & Gall, 2003). Among 11.000 works indexed in Google Scholar citing Ary et al. (2010) on December 2018, over 7000 papers applied case study as a research design. Most of the papers, interestingly, associated case study design with qualitative approach. Regarding embedded case study design, only Cohen et al. (2018) cited Yin's dichotomy of case study design by acknowledging embedded case study as a type of case study design. Indeed, literary few scholarly articles provide a comprehensive guidance on the application of embedded case study design. Let alone elaborates the protocol to operationalise the investigation under the flagship. The most cited literature in case study research method (Robert K. Yin, 2003, 2009; R. K. Yin, 2012), for example, articulated the embedded case study from a generalist perspective without further elaboration on its operationalisation. Novice researchers, in consequence, will find it difficult to adopt such design in social and educational research.

The following sections are organised as follows: the next section suggested the strategy to nominate a case and determining whether the analysis could be a wholistic or embedded case. The next section advocates the identification of case's component into fragments of cases, followed by the design of data collection and the strategy of data analysis.

DETERMINING A CASE

This editorial note aims to guide authors of IJPTE and general educational researchers by demonstrating the application of embedded case study research design in applied research. The pseudocase suggested in this note was intended to provide a clear example of the research design that educational researchers could follow accordingly. The issue of organisational power in the relationship between entities of the corporate group was employed as the pseudocase to suggest a complete perspective of the research design. Instead of aggregating statistical patterns from multiple samples, the richness of a single case are explored to elaborate the usefulness of embeded case study research design. Therefore, it is mandatory that the research design to be able to cater the exploration on the complexities and the intricacies of such phenomenon.

Given case study research method is employed in the research design, specifying what the case under inquiry is essential to guiding the course of the investigation. As it has been advocated by [R. K. Yin \(2012, p. p.34\)](#) that a careful definition of the case will help determine the focus of collecting and analysing data. There are, however, different perspective of scholars over what a case and how the case of a case study approach will likely be defined.

Table 0. Definition of case and how to select 'a case'.

Definition of 'a case'	Literature	Case Selection
A 'case' in general is an entity within a certain boundaries. It may be a person, an organisation, behavioural condition, event, or other social phenomenon. The boundary between the case and the context may not be easily distinguished.	Application of Case Study Research (Yin 2012)	The selection of a case should be based on a clear, strong and substantive rationale. That is including the step to collect sufficient data to decide whether a case meets the criteria that have been defined beforehand (p. 33)
A case is the problem or activity that researchers intend to investigate. It requires a specification to some degree over the nature of the problem or activity that will help researchers to determine the best in exploring the case.(pp. 28-29)	Case Study Research in Practice (Simons, 2009)	The selection of a case shall consider a number of factors such as the type of case the researcher wants to conduct, the location of the case (if it requires researcher to attend in person), the potential yields of understanding, the cost for travel, and time consumed in inquiry. (pp. 30-31)
A case is defined as the unit that become the focus of investigation in a research. The unit may be individuals, groups, or the organisations in entirety.	The Case Research Strategy in Studies of Information Systems (Benbasat, Goldstein, & Mead, 1987).	To determine the unit to be investigated, the researcher should be carefully examines the research questions. The generalisation expected on the research completion should be well defined.
A case is a phenomenon of some sort occurring in a bounded context. The case represents the unit of analysis that determine what is being studied and what not (p. 28).	Qualitative Data Analysis, A Method Sourcebook (Miles, Huberman, & Saldana, 2014)	The case is nominated by defining the focus of study and the boundaries of the context.

Case study research defines a case by articulating a binding statement. The above-mentioned table mentioned a case to be '*the phenomenon that being the focus of interest of the research*'. The phenomenon is bound within certain boundaries that have to be specified beforehand in order to help the inquiry over the phenomenon. Focus of the inquiry may be represented as an individual, groups or the entire organisation. It may also in the form of a specific project or decision.

The consideration over selecting the case mainly on the possibility of the case being replicated to the other organisations within a similar setting. The context of the relationship between a parent and subsidiary company could potentially be provided by any corporate group. For instance, over 1, 5 million companies listed in the Australian Stock Exchange by the end of the 2007 financial year, 1526 companies were reported holding companies ([van der Laan & Dean, 2010](#)). It supports the great possibility of the case in the research to be extended to the other corporate group setting.

Under the same vein, the replicability of selecting a case should be of the main reason. Educational researchers may have the advantage of the number of schools or educational institutions to replicate their case. Moreover, the interaction between stakeholders would become a rich area of exploration. The interaction between teacher and students in a particular course, for example, will be replicable to tons of other relationship.

RESEARCH DESIGN

It is imperative for a case study researcher to determine their unit of analysis. Since embedded case studies consider multiple units or objects of analysis that focus on different aspects of the case (Scholz & Tietje, 2002). Therefore, the evidence is explicated through the depth of exploration within various subunits. Scholz and Tietje (2002) suggested that an organizational case study maintains the main unit of the whole company as the unit of analysis in entirety. While the departmental or group of individual constitute as the smaller unit of analysis.

An embedded case research could be in qualitative, quantitative, or mixed design. It is the discretion of the researcher (or doctoral students and their supervisors) to determine what the research design will be since each design carries both breadth and depth of learning. The qualitative research design, for example, enable researcher explores the whole pattern rather than mapping the statistical causal relationship of variables (David, 2009, p. 5). The number of cases investigated would not be a burden for the research since each case will provide an in-depth investigation and rich description (Darke, Shanks, & Broadbent, 1998). Therefore, the selection of the case is the main interest of this editorial to achieve the understanding of the phenomena (Stake, 2005). An example of an embedded case research design in qualitative nature and the in-depth discussion will be presented in sub-section 5.

In quantitative design, researcher may apply multiple parameters that are measureable and reflect a certain perspective about the case. In a case that investigating the relationship between parent and subsidiary company, for example, the structure of shares ownership (or the composition of shares owned

by each entities) could become the entry point to investigate the relationship between corporate group entities. It is essential that researchers pay a special attention to the context of the case. In addition to providing background story for the analysis, the context where the case (or phenomenon) taken place may paint a supportive for the argument for research novelty.

RESEARCH OBJECTIVES AND RESEARCH QUESTIONS

Research objective and research questions are important to determine the expected outcomes of the research. They guide researchers toward the avenue to pursue the end points should be aimed to as well as direct the progress of the research. Research Objectives should be elaborated thoroughly in the research protocols to operationalize the research.

Having said that, we would like to emphasise the point to begin with. It is a cause where any case study research should depart from. Indeed it is the research question that – once satisfactory questions in place a study may be initiated (Agee, 2009). In this regard, research objective and research questions are the points of departure. In addition to highlight the expected outcomes of the research, they guide researchers toward the avenue to pursue the end points should be aimed to. Research Objectives should be elaborated thoroughly in the research protocols to operationalize the research.

We need to look back into our pseudo research closely; we have determined the pseudo research's objective as "to explore the key aspects in the relationship between parent and subsidiary company in a corporate group setting and their impact on an organisation's Enterprise Systems implementation." The focus of this pseudo case is the exploration over the impacts of the relationship between parent and subsidiary company of corporate-groups to the adoption and implementation of Enterprise Systems in a subsidiary company. In this regard, the case has determined to be the relationship between parent and subsidiary company of corporate-group. The attention has drawn upon the relationship between entities of corporate-group; particularly during the implementation of the Enterprise Systems in a subsidiary company. It is considered important to provide a rationale as to how the case is prominent and deems further exploration. While providing the illustration of the relationship between corporate group entities is the immediate reason.

The pseudo research provided in this editorial depicts the research objective as "*to explore the key aspects in the relationship between parent and subsidiary company in a corporate group setting and their impact on an organisation's Enterprise Systems implementation.*" The main objective of the research involves several complex circumstances regarding the organisational and the Enterprise Systems context. Of particular interest is on the influence of the corporate group setting in relation to the authority of the parent company, the ownership of shares and resources to the selection and the implementation of the Enterprise Systems in the subsidiary company.

The study employs embedded case study design. The design views the corporate group as one entity, while the parent and subsidiary entities represent the unique objects within the corporate group entity. The relationship between the parent entity and a subsidiary entity will be treated as a unique relation for the specificity of circumstances alongside each relationship. The relationships between the holding company and the subsidiary entities in this design, therefore, are treated as separated units.

DATA COLLECTION

In term of operationalizing data collection, it really depends on the design of the research. It is important to carefully scrutinize the research design mentioned in Sub-section 3. The pseudo-research exemplified in this editorial was designed to be collected mainly from in-depth interviews with the relevant members of the participating corporate group entities. The participants are nominated for their familiarities with the decision making of the Enterprise Systems in each organisation. They are including the top management of the organisations, the business functions management, and the management of the IT functions. The interviews are carried out by the face to face meetings and the conversations are electronically recorded under the consent of the participants.

It should be a concern for researcher employing case study research that data collection technique will influence modes of data analysis applied subsequently. Analyse data out of the translated conversation from foreign language to English, for example, may deteriorate the rich insight from the language (Nikander, 2008). Data analysis in such case, therefore, is suggested to be done in the transcription of the original language.

1.1 Data collection strategy

Since the organisation power in the relationship between the holding company and the subsidiary companies tends to be abstract, the researcher considered in-depth interview as the most appropriate method of data collection (Robert K. Yin, 2009, pp. 106-109). The in-depth interview strategy is the appropriate technique to inquire about the facts or even the participant's opinion. The insights offered by the participants about the events also will be beneficiary for further inquiry.

1.1.1 Research Participants

The design of the case of the research requires a particular setting of the research participant. It has determined that the participating organisations are entities of a corporate group including the holding company. In this regard, the researcher should deal with several organisations within a corporate group which willing to participate in the research. Added to the complexities, the prospective organisations should be involved in the Enterprise Systems project to a certain extent.

Given the requirement of the research design, it was realised that accessing Australian corporate group organisations to be participating in the research would not be easy. Even if the research supervisor's network of relationships is taken

into account, data collection would not be accomplished within the duration of the study.

The obstacles to gain access into corporate group organisations were resolved by the acceptance Indonesian organisations. The management of two Indonesian corporate groups were interested to participate in the research. The official of both holding companies paved the way to subsidiary companies that enable the researcher to directly in touch. One of the organisations is a state owned corporate group run a port management enterprise. Two out of five subsidiary companies of the port management corporate group were agreed to participate in the research. The other corporate group runs businesses ranges from publishing, printing, book distribution, food distribution, and retail. Four out of seven companies approved the proposal to be involved in the research. Therefore, there are two embedded case in the first case and four embedded cases in the second case.

Given the opportunity to undertake data collection was in Indonesian corporate group organisations with the presumption that the communication with the participants would be better in local language, the interview questions were prepared in bilingual. An interview protocol was developed in order to help the researcher to focus for the course of the research.

1.1.2 Interview Protocol

The interview protocol is set for about a 60 minute conversation comprises two segments of questions. The time frame of the interview is considered flexible and extendable. Upon interesting reply from the research participant, for example, the researcher, with the consent of the participant, is allowed to request the follow up interview addressing the particular matter. The entire conversation will be electronically recorded for further transcription.

As the part of retaining the meaning in data, data analysis will be conducted over the transcription of the original language, which is Bahasa Indonesia. The report of the result of data analysis, subsequently, will be presented in English.

A set of interview questions developed to be the guide during the interview. In a sense, the interview questions help the researcher to collect the appropriate information required to answer the research questions, as well as to achieve the objectives of the research. The interviews conducted, therefore, more likely to be guided conversations rather than a rigid question and answer session. The conduct of the stream of interview, however, will be fluid to the extent that the questions managed along the development of the conversation.

Table 4 1 Justification for the Interview Questions

THE DESIGN OF WITHIN EMBEDDED-CASE ANALYSIS

The process of data analysis of case studies entails the reduction and reconstruction of information in an ongoing process (Evers & van Staa, 2010, p. 752). In an embedded case studies setting, researchers should anticipate that multiple units of analysis will be revealed. According to the design of the psuedo-case, the relationship between the holding company and a subsidiary company

serves as a unique interrelation that is considered to be a single unit of analysis. Given the participating corporate group organisations comprise multiple subsidiary entities; each case in this pseudo-case consists of several embedded cases that would involve large quantities of data.

The purpose of data analysis in case study research design is to describe, understand, and explain what has taken place in the context of the selected case (Miles et al., 2014, pp. 100-104). A case is treated as a single entity for the inferences of data contained in it; to enable the researcher to present the findings and answer of the research questions, these data need to be systematically truncated, rearranged, organised, and interpreted (Evers & van Staa, 2010, p. 752). The in-depth exploration of the case entails the familiarity with the case in order to understand whether the patterns of the case support, refute or expand the previous theories or the propositions derived from literature (Paterson, 2010, p. 971).

THE CONTEXT OF THE CASE

Understanding the context of the cases entails the understanding over the phenomenon under study. The boundary between the case and its context may not be clear cut (Robert K. Yin, 2009) as the case study is a study of a case in a particular context therefore it is important to set (and explore) the case within its natural context. The following sections elaborated the pseudo-case within its contextual circumstances. Such elaboration, in a hand, is essential to articulate terminologies adopted in the analysis. On the other hand, it paves the way to synthesize the argument for further construct as the elaboration of a case extracts the case's characteristics, illustrates how an entity posited within the context, also what elements will be involved in the analysis. As educational researchers may scrutinise the elements of corporate group laid out below, the case's context may be built upon the relevant theories in educational research.

1.2 Entities of Corporate group

The relationship between corporate-group entities investigated in the research is conceptualized in Figure 1. Within the diagram, the oval shape on top represents the holding company entity (a); while three large circles underneath depict the subsidiary companies (b, c, n). The small circles inside the oval and inside the big circles (ITa, ITb, ITc, ITn), on the other hand, represent IT departments as the smaller functions in each entity. The diagram, however, anticipated that there will be (n) number of subsidiary companies in the group. Therefore, the big circles might be extended up to (n) circles. In general, the lines in the diagram portray the interaction between corporate-group entities. However, to be more specific, the lines distinguished into two different shapes. The dotted lines represent the interaction between IT function of the holding company (ITa) with the subsidiary companies; while solid lines represent the interactions between the holding company as an entity that consist of function of business and IT with the subsidiary company as the counterpart. Since the lines depict the interaction between entities, each arrow is marked as $R(n1-n2)$, whereas R resembles relationship, $n1$ and $n2$ represent the entities in the interaction.

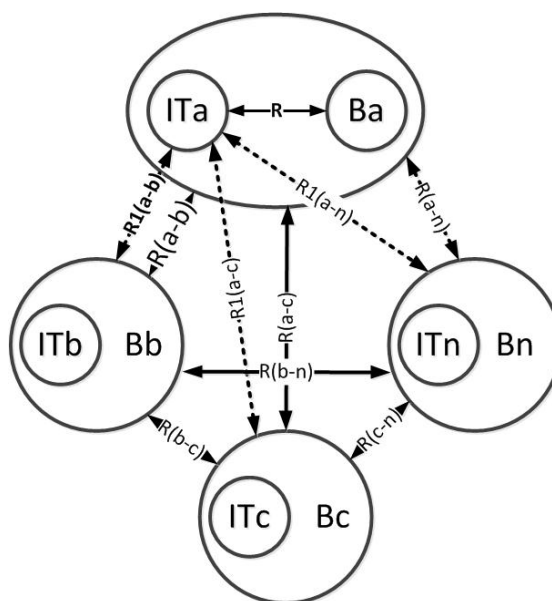


Figure 1. Diagram of conceptualisation of relations between corporate group entities

Despite the diagram illustrates the relationship between corporate-group entities in general, the case of this pseudo-case has been specified to be the relationship between a holding company and its subsidiary entity. Therefore, to determine a particular case in a research, the discussion should be focused down into the interaction between the holding company and one of the subsidiaries.

The use of relationship as the focus of a study is not a contemporary phenomenon. In a hand, the respected research method literature (See for example Miles et al. (2014) or Robert K. Yin (2009)) are supporting the investigation over something abstract (relationships, roles, processes, etc). On the other hand, relationship has been becoming the focus of investigation in classic research. Research on the power dependence relation, for example, investigated the relationship between individuals that belong to a group. A scholarly paper also emphasised that the conception of power dependence relation (Emerson 1962) may apply to a more complex community relations. The more recent example of Information Systems research focuses on the relationship between entities. The relationships between customers and suppliers in the Information Systems outsourcing arrangement as the focus of investigation (Goles & Chin, 2015).

The case of the pseudo research is specified to be a relationship between parent and subsidiary company of corporate-group during the adoption and implementation of Enterprise Systems in the subsidiary company. Case study research method has been suggested to be suitable to explore a phenomenon where the case and the context may not be easily distinguished (Baroudi & Orlikowski, 1989; Robert K. Yin, 2009). However, it has been strongly suggested that the boundaries of the case are well defined in order to separate the case from the context where the case take place (Robert K. Yin, 2009). In order to clarify the

boundaries of the case, the circumstances of a relationship between parent and subsidiary company are reconstructed through the identification of the context of the relationship as depicted in Figure 2 that will be clarified in the following subsections.

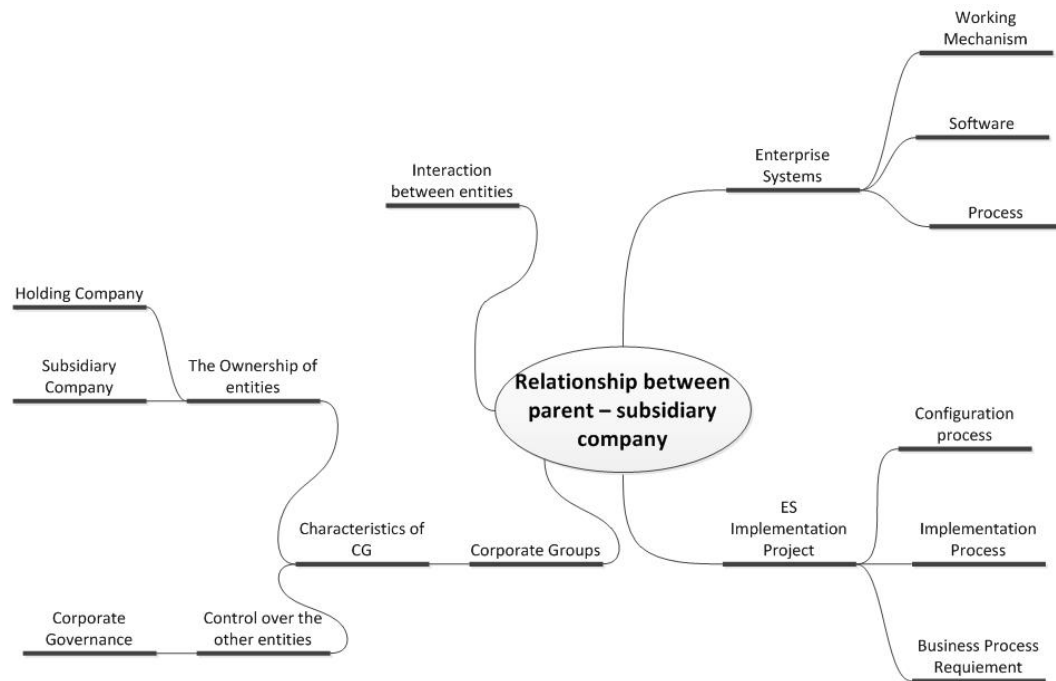


Figure 2. The construction of the context of the case

1.3 Corporate group

A corporate group is advocated as a form of cooperation of independent companies that collectively engaged in corporate business (CASAC, 2000). Given corporate-group is not the sole form of cooperation of companies (See for example McNeil, Niehaus, and Powers (2004), Kali (2003), Khanna and Palepu (1999), Granovetter (2005)), it will be necessary to distinguish corporate-group as the context of the pseudo-research from the other groups of businesses by identifying the distinctive characteristic of the corporate group. There are two prominent characteristics of corporate-group that, in hand, signify the interaction between companies within a corporate group and on the other hand differentiate corporate-group from the other groups of businesses, namely the ownership of entities of the corporate group and control over subsidiary entities.

1.4 The ownership of corporate-group entities

The ownership of members of corporate-group by a dominant entity of the corporate-group is the first characteristic of corporate-group (van der Laan &

Dean, 2010). The ownership can be assumed to be a strategy to obtain control over the owned companies. There are two models of ownership of companies in corporate-group that prominent in the literature. The first model of ownership of companies within corporate-group is the acquisition of the majority of shares of companies through the shares market (CASAC, 2000; Fasciani, 2007; Paquier, 2001)). It is labelled as the Anglo-Saxon model since it has been widely adopted in Western countries such as the US, the UK (Granovetter, 2005; Zattoni, 1999) and Australia (Ford, Austin, & Ramsay, 2005; Ramsay & Stapledon, 2001). The second model of ownership of companies within corporate-group environment is the German-Japanese model (Zattoni, 1999). It is indicated by the presence of a central company of corporate-group that plays a significant role in the other companies by financing a large part of the company's investment either as a debt or equity (Zattoni, 1999). Despite the model of ownership of companies is a practice that common in corporate-groups in Asian countries (Chua, 2007; Claessens, Djankov, & Lang, 2000), the circumstances and the impact of relationship between corporate-group entities has been less explored in the published journals.

1.5 Control

The second characteristic of a corporate-group is the presence of a dominant entity that entitled to the ability to control the whole corporate-group entities (van der Laan & Dean, 2010). van der Laan and Dean (2010) argue that control over corporate group entities can be apprehended to the extent that the dominant entity holds the authority to influence the strategic decision and the aspect of the operation of the controlled entity. Literature associates the ownership of corporate-group entities by a dominant entity of corporate-group with the ability to control the owned entities (See, for example Ramsay and Stapledon (2001)).

The view, however, has been opposed by the concept of separation of ownership and control that has becoming prominent within the context of the group of businesses (See, for example Claessens et al. (2000)). Within the concept of separation of ownership and control between three organisations, for instance, company A, company B, and company C, are interrelated in a corporate-group structure. Company A is related to company B for the majority of ownership of company A over company B; hence company A deems to obtain the control that derived from the ownership over company B. Meanwhile, company B controls company C for the majority of ownership of company B over company C. In this regard, company B obtains a direct ownership over company C while company A is entitled for an indirect ownership over company C. The control, in this scenario, is exerted from company A to company C indirectly through the exercise of control by company B; therefore, it is apparent that the control of Company A over Company C may not be necessarily in accordance with the ownership of Company A in the shares of Company C.

The control in the corporate group entities, however, should be in accordance with the type of the holding company determined by the organisation. Two types of investment holding companies are prominent in the literature. The investment

holding companies, in a hand, decide to invest in the least majority of shares in the subsidiary company (Paquier, 2001, pp. 163-164). Instead of acquiring control over the subsidiary companies, the investment holding companies take the minority of shares. The sole objective of the investment is gaining advantage from the revenue of the subsidiary entities. The financial holding companies, on the other hand, characterised by the controlling interest in the subsidiary organisations that the holding companies investing in. This pseudo research investigates these particular organisations for their specificity of measures of control.

1.6 Corporate group entities

Since the pseudo-case exemplifies the relationship between corporate-group entities, the clear identification of corporate-group entities will be important to determine the organisations those become the focus of the exploration. Therefore, this sub-section was intended to describe the organisations of corporate-group in more granular view.

Two kinds of test being advocated to identify the roles of each company as well as evaluate the extent of the relationship between the two entities (Ford et al., 2005). The first test examines whether two entities in a corporate-group are companies with a certain relation, whereas it is the reason for such incorporation. This approach identifies corporate-group entities either as a holding or a subsidiary company that addressing the owner and the owned entity respectively (Ford et al., 2005; van der Laan & Dean, 2010). It has been argued that the relationship between company A and company B that represent the holding company and the subsidiary company respectively involves the exercise of power by company A over company B (CASAC, 2000). The Company and Security Advisory Committee for the Australian Government (CASAC, 2000) has suggested that the exercise of power within corporate-group including the authority of company A to appoint or to remove the composition of the board of director of company B. Whereas, to be in the position of a holding company, company A entails a certain portion of ownership over company B. The other alternative to the requirement is that, company A would become the holding company of Company B if Company A is the holding company of Company B's holding company.

The second test to identify corporate group entities emphasises the exercise of power among corporate-group entities and distinguishes corporate-group entities into a parent and the controlled companies (CASAC, 2000; van der Laan & Dean, 2010). One of the indications of the parent company's control, on this regard, is the ability of the parent entity to influence the controlled entity's composition of board of directors (Ford et al., 2005, pp. pp.4.330-334.340). Austin and Ramsay (2005) suggested that another indication of control of a parent company over the entities of corporate-group is the ability of a parent company to influence the decision of the controlled entities. The control has been accounted to the ownership of the parent entity over the controlled entity; however, although a parent entity may not hold the majority of ownership of the controlled entity, a contract or agreement between entities of corporate-group may become a source

of the authority of a parent company in casting the final decision of the controlled entity (Bowra & Clarke, 1984).

The context of corporate group and the circumstances of relationship between corporate group entities would become the background for the last and prominent context of the research: Enterprise Systems. The relationship between corporate group entities in the Enterprise Systems implementation is the particular context that will be elaborated in the next subsection.

1.7 The Enterprise Systems Projects

While Enterprise Systems implementation is the context of the investigated pseudo-case, central to the research is the exploration over the impacts of organisational power to the implementation of the Enterprise Systems. While the implementations of the Enterprise Systems are carried out in subsidiary companies setting, the involvements of the holding company in the decision are profound. Enterprise Systems have been suggested to be the organisational systems comprise software, process, and working mechanism (Klaus, Rosemann, & Gable, 2000; Peter B Seddon, Shanks, & Wilcocks, 2003). A project of implementation of Enterprise Systems would likely bring forth the three components into the organisation dynamics.

For a strategic decision rationale, the decision of Enterprise Systems implementation requires the involvement of highest authority in the corporate group (Peter B. Seddon, Reynolds, Willcocks, & Mahler, 2012). The interactions in such environment are expanding across parent and subsidiary entities of corporate group. Beyond the relation between the parent and a subsidiary company, the collaboration and/or supply chain transactions utilising the Enterprise Systems may involve the other entities in the group (Davenport & Brooks, 2004). The Enterprise Systems implementation projects, therefore, is expected to exemplify the interaction between corporate group organisations. Particularly the intensity of communication prior the decisions to implement the Enterprise Systems are made and during the implementation of the projects. Specific to the dynamic of the relationship affected by the implementation of the Enterprise Systems.

Given the context of the pseudo-case is the relationship between a holding company and the subsidiary company of the same corporate group during the Enterprise Systems implementation project in the subsidiary company, it is important to describe the context a little more detail. The projects, therefore, have to be clearly described to obtain a rigid definition of and boundaries of the context. The projects investigated in the research are determined to be the projects on implementation of the Enterprise Systems in subsidiary companies of corporate group organizations. The characteristics of the investigated projects should be fell in the context outlined in the following:

- The projects implement enterprise-wide application software. Being an enterprise – wide infrastructure, the implemented software requires a particular capability for facilitating the integration between functions in the organization. The architecture of the software has to be prepared to enable the integration of

data, processes, and information technology, in real time, encompasses functions and departments (Peter B Seddon et al., 2003; Umble, Haft, & Umble, 2003). A centralized database manages all business transactions should be established. Upon which the transactions are entered, recorded, processed, monitored and reported (Umble et al., 2003).

- The software requires adjustment to the particular needs of the business. The software has to be in a package (Markus, Axline, Petrie, & Tanis, 2000; Markus & Tanis, 2000; Peter B Seddon et al., 2003) provided by the providers or vendors external to the organisation. The package of software entails the configuration to fit the particular aspect of business such as but not limited to the company information, financial accounts, or product stocks.
- The software is modular. The software is delivered in package of modules. One module represents a stream of business processes across several functions or departments. It is the discretion of the organisation to select the most suitable strategy of implementation to be adopted. It is also possible for the organisation to choose the modules to be implemented either in phases or simultaneously.
- The projects are carried out in subsidiary organisation. Being a strategic change in the organizations, the projects to institute the Enterprise Systems in the subsidiary companies require the approval of the higher authority. The holding companies oversee the entire entities of the corporate group for the plan that may put the priority of the strategic decision at a different pace compared to the subsidiary companies.

Given the real world might not be as ideal as specified in the literature; the context of the pseudo-case elaborated in the previous sections asserts the guidance for the researcher during the selection of the case. Moreover, the description of the characteristics may benefit future research to identify the circumstances of the organisations to be investigated.

CONCLUSION

The embedded case study research design is suitable to facilitate the exploration of the richness of a single case. An embedded case is developed from unique characteristics of a selected case in order to investigate the peculiarity of each embedded case. The exploration of the embedded case, eventually, will elaborate the explanation of the case as a whole. Despite the pseudo-research exemplified in this note is somewhat different to the context of educational researchers' may find in their endeavour, the approach to embedded case study design in this note should be easily transferrable to any educational circumstances.

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