

**Inventing Apps:
The Case of The Incubatees at iCentre Brunei**

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by

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Abstract

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One of the most widely held current perspectives about technology is social construction of technology (SCOT). Despite being a powerful theory frequently held high by social constructivists, most studies that utilise SCOT focused their attention more on user-producer relationships in relation to technological development. There is a minimal emphasis on the role of producers of technology. This study's main objective is to critically examine cooperative relationships amongst the producers or incubatees of mobile applications at an incubation institution in Brunei Darussalam, iCentre Brunei (iCB) and to address the first research question that seeks to find out the conditions that facilitate cooperation and the innovation of apps amongst the incubatees as how they had experienced it. The experiences of the incubatees are further examined through the second research question, which aims to assess the concept of trust that is widely perceived as important elements that ensures cooperation.

By engaging symbolic interactionism perspectives with qualitative data obtained from fieldwork interviews together with relevant literatures, the case of the incubatees confirms the significance of social situations and social meanings in securing their respective teams' cooperation and innovation. Vulnerable as they are due to their limited financial capability and lack of entrepreneurial experience, the incubatees at iCB survives and thrives by fostering and valuing both informality and trust to facilitate their cooperation and simultaneously foster their innovation. In addition, both homophily and passion also plays vital roles in securing trust and cooperation within the incubatees' respective team.

Based on the above findings, this study recommends an alternative way in understanding the social construction of technology within the experiences of novice producers of mobile applications.

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“He who learns must suffer, and, even in our sleep, pain that cannot forget falls
drop by drop upon the heart, and in our own despair, against our will, comes
wisdom to us by the awful grace of God.”

Aeschylus

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Abbreviations

AITI – Authority for Info-communications Technology Industry

ANOVA – Analysis of Variance

APICTA - The Asia Pacific ICT Alliance

BEDB – Brunei Economic Development Board

BIA – Brunei Investment Agency

BSDC – Brunei Solutions Development Centre

BVD – Business Values Dimensions

DARe – Darussalam Enterprise

DST – DataStream Technology

EGNC – E-Government National Centre

iCB – iCentre Brunei

ICT- Information and Communications Technology

IT – Information Technology

ITB – Institute Technology Brunei

KFC – Kentucky Fried Chicken

LEAP – Local Enterprise Applications and Products

MIB – Melayu Islam Beraja

MOFAT – Ministry of Foreign Affairs and Trade

NUS – National University of Singapore

RFID – Radio Frequency Identification

SCOT – Social Construction of Technology

SME – Small and Medium Enterprise

STS – Science and Technology Studies

SUB – Start-Up Brunei

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Chapter 1: Introduction

1.1 Introduction to the study

Brunei Darussalam is new to the business of Info-Communication Technology (ICT) industry. Its first ICT innovation centre was founded only in 2008 by the initiative of The Government of Brunei Darussalam whose long-term plan is to make ICT industry as a platform in the creation of jobs and wealth for its future generations. One of the areas being developed at the ICT innovation centre, or formally known as iCentre Brunei (hereafter abbreviated as iCB), is on building mobile software application or popularly known as 'app' (or in plural, 'apps'). The apps are developed by start-ups, known at iCB as 'incubatees' who specialises in developing apps. The incubatees are individuals who belong to their own respective start-up teams that are housed at iCB.

Despite being new to the business, the number of apps developed at iCB is on the increase. Most of these apps are built for the Brunei market, with some targeted for international audiences as well but with variation in their rate of success. Nevertheless, knowing that the Brunei market is small, thus the incubatees were continuously urged to look beyond the Brunei market to sell their apps. Now, this might sound straight forward, but the reality is not so. App industry itself is a multi-billion-dollar industry with nearly 3.9 million apps¹ available in the market (Statista 2019). Being new to the app industry, the crucial issue facing teams of incubatees at iCB is how to compete within the highly competitive industry. Within the Brunei context, local business experts were optimistic that Brunei will be able to be part of the competitive apps market (Brunei Times, December 9, 2011). This was because the incubatees had been doing quite well. This was proven as some of them managed to win some prestigious international awards. However, research shows that a career as an app developer could be risky and vulnerable (Bergvall-Kåreborn and Howcroft 2013: 965).

¹ Based on the number of apps that uses both Apple iOS and Android operating system. (<https://www.statista.com/statistics/276623/number-of-apps-available-in-leading-app-stores/>).

Thus, it will be of interest to find out how start-ups incubatees who chose to be app developers could survive with such a challenging career. This study will specifically focus on analysing cooperation and innovation amongst incubatees at iCB and their respective teams. The rationale for doing this study is explained below.

1.2 Rationale for the study

My interest in exploring this topic comes from my childhood experience. My late father was both a creative and innovative person. He could turn a piece of wood into a beautiful kitchen cabinet or repaired a mechanically broken old grandfather clock that has been left lying around for decades. These are some of the few things that I remember he did. Basically, he innovated and improvised things, which he did out of his creativity. He was born in 1929 and from what I know he did not attend any technical schools or training workshops. Unfortunately, none of his sons or daughters inherited this creativity (which obviously includes me). Nonetheless, this childhood experience has a lasting impact on me – it harnesses my curiosity on innovative people – how do they do it? What makes them innovative?

During my undergraduate years, I realised that I have a passion in studies concerning the young segment of the population, specifically the youth. Basically, I have these curiosities on why they do what they are doing, for example on youth who acted in a group – those who hang out at shopping malls or a group of youth that come together and set up their own business. But what fascinate me the most are those groups who have innovative skills and came up with something new. Being a citizen of Brunei and living in Brunei all my life, I realised in recent years that the young generations are getting more attached to gadgets and technological stuffs particularly those relating to ICT. I also noticed that a number of these innovative groups started to invent software applications (or known popularly as ‘apps’) for smart mobile devices like iPhones or iPads. For me this is a breakthrough for Brunei due to two important factors. Firstly, Brunei has a small number of populations and to have something like this shows that the younger generation is moving forward with science and technology – a sign of social change taking place. Secondly, it is

only recent that the government of Brunei started pushing for ICT development and apparently these young innovators and start-ups are coping very quickly with all these digital innovations (and even won some international awards). Thus, there is a puzzle here that needs to be discovered – how did these young innovators managed to do it? Is the Brunei society particularly the young local youths changing towards becoming more innovative? If so, what are the social and cultural elements involved in harnessing their talents? As a sociologist, these are some of the questions that have triggered my curiosities.

1.3 Main themes of the study

There are three main themes of this study. First, there is an examination on the relation of the study with the social construction of technology (SCOT) theory. Second, there is an examination of the experiences of the incubatees who develop apps at iCB. Third, there is an analysis of the experiences in relation to the three concepts utilise in this study, namely, cooperation, innovation and trust. This study will employ the symbolic interactionism theory as a theoretical framework for analysing the three concepts in relation to the findings of this study. The three concepts are chosen based on their suitability in explaining the process of group or team dynamic in an organizational setting. Fundamentally, the process of building an app calls for cooperation where a group of people work together, exchanging and forming innovative ideas and trusting each other to accomplish and overcome the challenges in building the apps. I believe that both interactions and situational context play crucial roles in determining and shaping the dynamic within the incubatees' teams at iCB.

1.4 Objectives of the research

Given the fact that this study is aimed in developing a framework of understanding the survivability of technological incubatees who invent apps in Brunei, thus the objectives of the study are as follow:

1. To collect interview data from a select sample of technological incubatees in Brunei, in order to examine their success factors as well as constraints to survivability.
2. To assess the role of iCB in spurring innovation within the teams of incubatees.
3. To analyse how incubatees cooperate and develop trust within their respective teams.
4. To explore how innovation is pursued within teams of incubatees.

1.5 Research questions

Two research questions are asked:

- A) How do innovation and cooperation occur amongst the incubatees? What fosters the culture of innovation and culture of cooperation amongst them? How is such cooperation secured?
- B) Given that cooperation and trust are important elements in ensuring innovation, how is trust perceived, negotiated and achieved between incubatees and within their respective teams?

The research questions will be guided by the following subsidiary question:

- 1) What is the role of institutions as well as the role of informal means in securing conditions for cooperation?

For the ease of the reader, the first research question will be known as question 6A (Chapter 6 deals with question A) and the second research question as question 7B (Chapter 7 deals with question B).

1.6 Theoretical framework

This study is theoretically linked to the Social Construction of Technology (SCOT) theory. However, before giving the explanation on how they are related, there is a need to have a brief review of the context of the theory, which will then give a clear picture on how the connection is made.

1.6.1 From science and technology studies to the SCOT model

Before diving into a review of SCOT, it is imperative to discuss the background history that led to its founding as such times were seen as an important period for social theorists of science and technology studies (STS). The subsequent discussion, however, is not an exhaustive review of all works on the social sciences of science and technology. The focus will only be on a few significant works that play a significantly role pathing the way to what has changed as well as brought a new beginning within the social field of science and technology studies.

The debates and divisions amongst scholars of STS went back to the intertwining discussion about “society” and “technology” which was initially dominated by the field of ‘Technological Determinism’ (MacKenzie and Wajcman, 1999: xiv). Technological determinists believe that “technology was a separate sphere, developing independently of society, following its own autonomous logic, and then having ‘effects’ on society” (McKenzie, 1999: xiv). Simply put, the theory claims that technology is the primary cause of social change (Mackenzie and Wajcman, 1985: 4). In the words of two prominent technological determinists, Merritt Roe Smith and Leo Marx (1994) in their edited volume, *Does Technology Drive History? The Dilemma of Technological Determinism* where they stated, “A sense of technology's power as a crucial agent of change has a prominent place in the culture of modernity... new technology can alter the very texture of daily life, and has gained this understanding as more than a bystander” (Ibid: ix). They justified their views by using a handful examples of technologies such as computers, television, jet aircraft, nuclear weaponry, antibiotics, the contraceptive pills, organ transplants, and biogenetic engineering which they have strongly argued to have transformed millions of lives (Ibid: x). Moreover, they also postulate that technology has played a significant “decisive role in history” unlike social scientists which are often more abstract in their ideas when it comes to assigning the causal of human actions, for example, on “socio-economic, political, cultural, and ideological formations” (Ibid: xi). In other words, technological determinists believe that technology bring social changes often with unpredictable effects, thus making technology an independent factor that has its own direction (Mackenzie and Wajcman, 1985: 4). Thus, for technological

determinists all these “narratives give credence to the idea of "technology" as an independent entity, a virtually autonomous agent of change” (Smith and Marx, 1994: xi).

The technological determinists’ viewpoints however have been strongly rejected by STS scholars (see for example, Bijker, Hughes, and Pinch, 2012; MacKenzie and Wajcman, 1985, 1999) who essentially argue that technology does not define human action, but that rather, human action is independent of technology and concurrently shapes it. This was made evident when the first edited volume of *The Social Shaping of Technology* by Donald MacKenzie and Judy Wajcman (1985) was published. However, an important and changing era for the STS traces back to the article of Trevor Pinch and Wieber Bijker (1987) on *The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each other* which introduced SCOT in the spotlight. This was later followed by another comprehensive work by Bijker (1995) *Of Bicycles, Bakelites, and Bulbs* that expanded further discussion on the use of SCOT². SCOT was seen as a pinnacle in the history of the STS as it has paved the way for more scholarly discussion on the relations between society and technology. This was clearly demonstrated when the second edited volume of *The Social Shaping of Technology* by Donald MacKenzie and Judy Wajcman was published in 1999. In the volume, the STS scholars reaffirmed their positions against the views of technological determinism theory, which they have argued as “naïve” and “simplistic” and are “politically” and “intellectually” weak (Mackenzie and Wajcman, 1999: xiv). Moreover, the STS scholars also reject the technological determinists attempt “to reduce the intimate intertwining of society and technology to a simple cause-and-effect sequence” and accused the technological determinists of being over-driven “in its focus on technology’s effect on society” which causes them to neglect the connections that people have with things that they create (Ibid). In the words of Mackenzie and Wajcman (1999), “[I]t neglected, in other words, the social shaping of technology” (Ibid).

² A detail discussion on the SCOT model/theory will be made in the next section.

One well-known article that successfully debunked the technological determinism perspective is Michel Callon's, *Society in the Making: The study of Technology as a Tool for Sociological Analysis* (in Bijker, Hughes, and Pinch, 2012: 77-97). Callon argues that the process of technological innovation itself is not a linear process, meaning that, it must follow a series of "a succession of steps from the birth of an idea (invention) to its commercialization (innovation) by way of its development" (Ibid: 77). He also refuted the claim that it is possible to delineate the phases or activities during the process of innovation that is technical or scientific or even "economic, social or political" (Ibid: 78). According to Callon, such distinction cannot be made because "right from the start, technical scientific, social, economic, or political considerations have been inextricably bound up into an organic whole" (Ibid). To substantiate his arguments, Callon illustrates the role of engineers in the process of technological innovation, focusing on engineers who were involved in the development of an electric car, known as VEL, in France. For Callon, the engineers are like Thomas Edison, "they continuously mixed technical and social sciences" hence he dubbed them, "engineer-sociologist" (Ibid). To kick-start their VEL project, the engineers had to convince the stakeholders in order to get funding. Thus, they presented to the stakeholders a picture of "urban post-industrial consumers" and new social groups that are concerned with the air and noise pollution caused by the conventional-type motor vehicle. The solution to the problems is the VEL that utilises a more environmentally friendly "electrochemical batteries" which will allow the motor vehicle to reach a considerable speed (Ibid: 79). To ensure their arguments are robust, the engineers had to be in contact with research centres, scientists, consumers, social movements, and ministries throughout the development of the motor vehicle (Ibid: 78-80). In Callon's words, "they went from electrochemistry to political science..." (Ibid: 80). In addition, Callon also argues that sociologists could learn "powerful tools of investigation" from the engineers and vice versa (Ibid: 92). Engineers, Callon argues, when they are involved with developing innovations "are forced to develop explicit sociological theories", which provide new grounds for sociologists to explore (Ibid: 92). All in all, it could be deduced that Callon's work has

shown the significance of social determinants in influencing the process of technological innovation.

Corresponding to Callon's work above, this study itself is about technologists who are app developers where their line of work mostly deals with graphic designs and software programming. Thus, through Callon's work it is anticipated that social aspects will play significant role amongst producers of technologies particularly looking into their aspects of their cooperation and innovation.

Another very influential article in the STS debate between social determinism and technological determinism perspectives is Langdon Winner's, *Do artifacts have politics?* (in MacKenzie and Wajcman, 1999: 28-40). Winner partially disagrees that "technologies are in themselves neutral – that all that matters is the way societies choose to use them" (Ibid: 4). According to Mackenzie and Wajcman (1999), Winner's stance stands on the notion that "to say that technology's social effects are complex and contingent is not to say that it has no social effects" (Ibid). In other words, Winner's attempt is to bring the two opposing sides to see the strength and weaknesses of their own arguments. There are two ways to see Winner's arguments. First, Winner argues, "technologies can be designed, consciously or unconsciously, to open certain social options and close others" (Ibid). He substantiates his point by illustrating the New York road systems designed by Robert Moses, which reflects "Moses's social-class bias and racial prejudice" (Ibid: 30). The road systems designed by Moses was made to restrict movement and hinder access to certain group of people, specifically, the poor people and blacks who frequented the public transit, in which the buses were not able to get through the overpasses (Ibid). Second, Winner posits that technologies can either be partially or entirely be political where it is inevitably linked to "particular institutionalized patterns of power and authority" (Ibid: 38). He supports this point by exemplifying specific technologies - the nuclear weapons, oil pipelines and refineries. According to Winner, "[I]f such systems are to work effectively, efficiently, quickly, and safely, certain requirements of internal organization have to be fulfilled" (Ibid: 35). He clarifies his points by the case of the nuclear weapons, in which "its lethal properties demands that it be controlled by a centralized, rigidly hierarchical chain of command... the internal social system of the

bomb must be authoritarian; there is no other way” (Ibid: 34). In other words, Winner justifies the control of technologies in the hands of powerful people as well as those who work to maintain those technologies. To sum up, although in his closing paragraphs Winner tend to show a neutral standpoint in the arguments between the contending sides in STS, however, it could be concluded that the bulk of his work rejects “hard” technological determinism perspectives (Ibid: 4-5). This is quite evident in his closing lines where he points out that “[I]n our times people are willing to make drastic changes in the way they live to accord with technological innovation at the same time they would resist similar kinds of changes justified on political grounds” (Ibid: 39). In other words, he was reaffirming that technologies do affect people but in its entirety it is controlled and shaped by people and not the other way around.

1.6.2 The Social Construction of Technology (SCOT)

The Social Construction of Technology (SCOT) is a model/theory that was developed by Trevor Pinch and Wiebe Bijker (1987) through their well-known article, *‘The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might benefit Each Other’* (Republished in 2012 as Anniversary Edition). The key idea of this theory is that technology is shaped by human actions through the ‘interpretative flexibility’ of ‘relevant social groups’ (Kline and Pinch, 1999: 113). In other words, “different social groups associate different meanings with artifacts leading to interpretative flexibility appearing over the artifact” (Ibid). In order to understand SCOT, technology needs to be seen in the context and the content of how technology is embedded within the specific social domain (where the technology under study is utilised). By knowing the social processes that shape technology would therefore allow us to create different or better technologies (Bijker & Law, 1992: 4). Moreover, it is not the social aspects alone that need to be put under the microscope. In fact, and as Bijker and Law (1992) emphasised that “the social is not exclusively sociological. In the context of technology and its social shaping, it is also political, economic, psychological – and indeed historical” (Ibid).

To understand how society shapes technology, Pinch and Bijker (1987, 2012) developed SCOT both as a theory and a research methodology aimed to analyse the social process of technological development as well as to assess the success or failure of a specific technology respectively (Pinch and Bijker, 2012: 22). In utilising SCOT, their analysis will usually begin with a broad examining of the historical development of a particular technology. Thus, for their first SCOT demonstration (1987), they chose to look at the historical development of the bicycle. They began by showcasing the history of bicycle and how it has evolved both in its shapes and designs. They also explained how different models of bicycles have received different rate of success and failures. According to Pinch and Bijker, the success and failure rates of the bicycle could be traced back to the relations between its producers and the users. In other words, Pinch and Bijker argues that in order to comprehend the social shaping of a specific technology, it is essential to examine the 'developmental processes' and "consider the problems and solutions presented by each artifact at particular moments" (in Bijker, Hughes, & Pinch, 2012: 22). To achieve this, Pinch and Bijker established a systematic four-step process. Firstly, the relevant social groups relating to the artifact are identified i.e. the "consumers" or "users" of the particular technology (Ibid: 23-24). These groups might comprise of institutions, organisations, and organised or unorganised group of individuals that "share the same set of meanings, attached to a specific artifact" (Bijker and Pinch, 2012: 23). Thus, according to Klein and Kleinman (2002), the relevant social groups are the "agents... whose actions manifest the meanings they impart to artifacts... embodying a specific interpretation of an artifact, negotiate over its design, with different social groups seeing and constructing quite different objects" (Ibid: 29-30). Therefore, the social groups' consensus is deemed to be very important within the content process of a technological development (Ibid: 30).

Secondly, the social meanings and the problems and solutions linked to the bicycles are identified and acquired from the relevant social groups (Ibid: 23-28). Equally, it is also important to identify the social meanings according to the specific social groups and to decide the division of the social groups according to the meanings that they have given to the artifact (Ibid: 27). Having accumulated the data, it is then

imperative according to Bijker and Pinch (2012) to examine the data with the application of the 'interpretative flexibility' approach i.e. "the demonstration that technological artefacts are culturally constructed and interpreted" through how people think, interpret, and design certain artifacts (Ibid: 34). Simply put, the solutions to the problems are found through 'interpretative flexibility', that is, how people interpret the artifact and how it should be designed (Ibid). Thus, the application of the interpretative flexibility is about "intergroup negotiations over the interpretation of observations" (Pinch, 1996; Klein and Kleinman, 2002). By focusing on the meanings and problems given to certain technological artifacts, the norms and values relevant to the social groups are constituted within the different lines of development of the technology (Ibid: 40). In other words, social aspects are embedded within the building and improvement of the technology.

Thirdly, the 'Stabilization'³ of the artifact is achieved once the relevant social groups perceived that the problem as being solved (Ibid: 37). Thus, the closure debate continues until all the relevant social groups relating to the artifact agree with the end product. In other words, the design process of the artifact will cease to continue once "conflicts are resolved and the artifact no longer poses a problem to any relevant social group" (Klein and Kleinman, 2002: 30). To achieve closure and stabilization, Pinch and Bijker (2012) put forward the 'closure mechanism', which is achievable in two ways. First, the rhetorical closure, which is a declaration made to close the technological 'controversy' and to acknowledge that the problem has been solved (Ibid: 37). This can be done, as exemplified by Pinch and Bijker (2012) through the manipulation of advertising (Ibid). Second, by applying the 'closure by redefinition of the problem', which literally means that the problem is "translated to constitute a solution to quite another problem" (Ibid: 39). In other words, the newfound solution overshadowed the original problem. An example of the closure by redefinition as illustrated by Pinch and Bijker (2012) was on the acceptance of the air tire that was initially found by many cyclists as problematic due to the vibration

³ The meaning of 'Stabilization', in the context of the SCOT, is defined as the artifact reaching a stable point at which its problems are seen, as being solved by relevant social groups (Bijker and Pinch, 2012: 37).

produced. However, the problem was considered 'solved' when it was found that racing cyclist were able to gain faster speed when using the tyre (Ibid: 39). Thus, in this case closure was achieved through the redefinition of the problem.

Fourthly, is on the wider context. According to Pinch and Bijker (2012), this final stage is about making connections of the content of a technological artifact to the wider sociocultural and political milieu of the relevant social groups (Ibid: 40). However, as pointed out by Klein and Kleinman (2002), this aspect was very much elusive in Pinch and Bijker's original conception of SCOT (Ibid: 30). Thus, the 'background conditions of group interactions', 'the rules ordering their interactions', 'their relations with each other, and 'differences in their power' are some important aspects that is missing in SCOT [Ibid]. However, in an attempt to rectify this problem, Bijker (1995) introduced a "frame with respect to technology" (Ibid: 126). This new technological frame includes significant aspects that characterised relevant social groups, among others such as their goals, key problems, group structure, designing aspects and many more (Klein and Kleinman, 2002: 31). Nevertheless, according to Klein and Kleinman (2002), the weaknesses of SCOT are mostly identified within the fourth aspect of the theory. The wide criticism received by the SCOT theory is mostly centred on the over-simplified 'wider context', which only "concerns excessive emphasis on agency and neglect of structure" (Klein and Kleinman, 2002: 30). On another point, critiques also focus their dissatisfaction on SCOT's handling of relevant social group, particularly when it comes to recognizing the structure of the group in terms of power asymmetry that highly affected the group's conflict and consensus to reach a specific design (Ibid: 30-31).

Having examined the SCOT's approach to the study of sociology and history of technology, in this paragraph I will now consider how SCOT can be applied to the technology studied in this research that is, the study of apps. This research highly agrees with the SCOT theory that users of a specific technology play a significant role in the improvement of a specific artefact. In fact, related to this research, such user-producer relationship is crucial for success in the process of apps innovation. Recent studies on digital technology relating to apps (for example: Squire and Dikkers, 2012; Bergvall-Kåreborn and Howcroft, 2013) shows that by having such relationships,

apps developers will be able to improve their products through feedbacks given by the users. In other words, “the relationship is symbiotic in that product success feeds of workers success and vice versa” (Bergvall-Kåreborn and Howcroft, 2013: 974). Equally, the users’ feedbacks are also crucial for the commercialization of apps (Ibid: 973). With the users’ feedbacks the ‘interpretative flexibility’ of the SCOT theory contributes in shaping the work on innovation of apps. This could then contribute to the success of commercialization. One of the apps developers interviewed by Bergvall-Kåreborn and Howcroft clearly stated that, “I think the only way is to listen to the feedback and really try to deliver exactly what the user wants” (Ibid: 974). This actually means that users’ inputs (i.e. interpretative flexibility) are constituted in the subsequent innovation of the apps, that is, through the frequent periodic ‘updates’ of the specific app. Therefore, in this regard it is crucial for developers to maintain frequent contacts with apps users as their feedback will assist the developers in the innovation process of their apps. Such contacts are possible through the ease of digital platforms, like social networks site, webpages (Ibid), and most conveniently through the comments section in the apps store itself. Equally, it can also be seen from the statement that the ‘pressure’ given by apps users may push apps developers to become more innovative. This provides a win-win situation for both sides in which the users will get what they want, and the producers acquire the commercial success that they desire. Thus, it could be deduced, based on the user-producer relations of the SCOT approach that innovation amongst the app developers is an outcome of the ‘interpretative flexibility’ of the users.

Having covered the key components of the SCOT model/theory, two questions needs to be considered. First, how is SCOT theoretically linked to this research, which is about developers of a recent type of technology, i.e. mobile apps? In other words, since SCOT and its broad theorizing, based on the numerous works that have employed it, is mostly about the users-producers relations of certain type of technology, thus, how then it is connected to this research, which is entirely about producers of a specific technology, that is, the app developers? Second, since this research is concerned about producers of technology, what are the potential areas

in SCOT that can be explored that is related to them? I will explain the answer to these two questions in two parts respectively.

Firstly, in their discussion on the 'interpretative flexibility' both Pinch and Bijker suggest that the technologists (or producers, creators, developers, engineers, and so on) themselves play a significant role in the design of an artifact (Pinch and Bijker, 2012: 34). In fact, they assert that technologists are part of the 'relevant social groups' who are "engaged in the contemporary technological controversy" (ibid). Both Kline and Pinch (1999) also substantiated this point when they said that "in SCOT, 'relevant social groups' that have a role in development of a technological artifact are defined as those groups who share a meaning of the artifact" (in MacKenzie and Wajcman, 1999: 113). They further assert that the groups might include "engineers, advertisers, consumers, and so on" (ibid). From here, it is evident that although the SCOT theory gives more focus on users-producers relations, it does not entirely neglect relations amongst producers of technology and each other. The fact that "SCOT focuses attention upon what counts as a viable working artifact, and what indeed counts as a satisfactory test to that artifact" (ibid: 114) means that producers also contributes significantly to the success of a specific technology.

Secondly, critiques of the SCOT theory are mostly concerned with the conceptual role of the wider societal context. According to Klein and Kleinman (2003) and their assessment of the SCOT model, Pinch and Bijker only include a "minor role" of the sociocultural and political milieu in their original conception of SCOT (Ibid: 30). Therefore, they insist on "the importance of structural concepts to understanding technological development" to rectify the issue (Ibid: 28). Despite their praise of the SCOT theory as being 'rich and diverse' but they also critically argue that it "has largely remained committed to an agency-centred approach" (ibid) and "neglect of structure" (Ibid: 30). Since the original presentation of SCOT, there has been numerous works that utilises SCOT in relation to various structural concepts, for example, Kline and Pinch (1996) on gender, Constant II (2012) on community and organisations, and Rosen (1993) on the wider social context of the postmodern. However, Klein and Kleinman (2002) postulate that despite the various works that integrates structural concepts into SCOT, there is still "numerous possibilities exist

for additional insights” (Ibid: 31). Thus, they noted that the “relevant social groups and actors within them... are shaped by their structural characteristics” (Ibid: 35). In other words, they recognise the structures are “social constructs”, however, they are less interested in the process of development of the structures and are more inclined on understanding the effects, that is, on power asymmetries (Ibid: 35-36).

Going back to the second question on the potential areas in SCOT, unlike Klein and Kleinman’s work where they emphasise the focus of their study is on power asymmetry (Ibid: 35-36), this research is inclined to examine the process of development of the structures of institutionalised groups of technology producers, i.e. apps developers at iCB. In addition, this research is also inclined in understanding the social interactions of the app developers in order to understand how it shapes their structures of cooperation and innovation. To do this, this research is in general agreement with Klein and Kleinman (2002) that a separation is needed to analyse the context and content of a specific technology in order “to understand how the social world shapes (the meaning of) artifacts” (Ibid: 36). However, unlike Klein and Kleinman’s approach which gives “attention to structural factors... to understand the relative efficacy of system of meaning and the role of meaning in shaping artifacts...” (Ibid: 38), this research begs to be different. In other words, the conceptual framework proposed by Klein and Kleinman eventually intends to access the success and failure of an artifact through examining the effects of power asymmetry of groups’ structure, which this research is not. It should be made explicit here that this research will not be about figuring out the success or failure of a particular technology (content) but it is more to understanding the content (structure) of groups, and their social interactions that facilitates their cooperation and innovation.

Unlike the conventional SCOT usage on users-producers’ relations that advocate the idea that “social groups interpret artifacts differently and seek to shape them according to their different system of meaning” (Klein and Kleinman, 2002:38), this research will focus on the context of the producer of technology and the situation that influence their overall productivity. Thus, this research will be interested in questions of how the producer of apps were able to come into being, what conditions facilitates them to cooperate and bring out their innovation, and how do they

maintain their group cooperation and innovation. This research therefore advocates that by comprehending the structure of context of the producers of technology, and their situational interaction, will facilitate in answering the research questions of this research.

1.7 Opening remarks on symbolic interactionism

When examining the qualitative data of this study, I believe it is useful to guide the underlying arguments raised in this research with the philosophical principal of Symbolic Interactionism. Symbolic Interactionism is a well-known philosophical principal in the field of sociology and social psychology. The term 'Symbolic Interactionism' was coined by Herbert Blumer, although the idea itself was conceived earlier by George Herbert Mead and Charles Horton Cooley. Symbolic interactionism is "a relatively distinctive approach to the study of human group life and human conduct" (Blumer, 1969: 1). In other words, the idea behind Symbolic Interactionism is that human interactions produce symbolic subjective meanings, which in turn shapes people's behaviour. I will apply symbolic interactionism approach in this research based on the perspectives of renowned symbolic interactionists, namely, Blumer, Goffman and Mead. In addition, I will also employ other scholarly works that utilises symbolic interactionism.

I will return to discuss more on Symbolic Interactionism in the methodology chapter 4 of this study. There I will explain in detail about the theory and how it is useful as a tool to analyse the research data of this study.

1.8 Value of the research

The potential values of the research are as follows:

1. The findings of this study will contribute in understanding the vital importance of social processes in ensuring success in tech start-ups, particularly in the context of Brunei Darussalam.

2. New knowledge obtained from this study could contribute to theory development of the Social Construction of Technology (SCOT) theory. SCOT highlights the importance of consumers-producers relationship to determine the success or failure of a certain technology. Thus, the findings of this research could contribute in understanding essential ways of how success could be attained in the development of a type of technology in a producer-producer relationship.

1.9 Chapter organisation

This thesis is divided into seven chapters:

Chapter 1 is the introductory chapter that looks into the overall framework of this thesis. This includes as seen above, the introductory statement, objectives of the research, and the research questions.

Chapter 2 is about detailing the background of the setting, which is about Brunei Darussalam. The chapter also touches on the social cultural context of the people focusing primarily on the values of the Brunei society, particularly on trust. This is important in order to understand the principal factors that influence the interactions between people in the Brunei context. As will be highlighted in chapter 7, values play a large influence in shaping trust within teams of incubatees. In addition, studies on values in workplaces and organisations are also discussed in this chapter.

Chapter 3 presents the actual setting of this research, that is, the iCentre Brunei. This chapter will first look at the historical development of ICT in the Brunei context. This will be followed by the background information of the iCB, which looks at the structure of the institution and its role in ICT development in Brunei. A section will then follow about the incubatees at iCB. The first sighting of any empirical findings can be found in this section where a closer look into iCB from the perspectives of the incubatees will be presented. This is important in order to make sense of how the incubatees relate their experience with iCB and being at iCB to the two main findings chapters of this thesis.

Chapter 4 is the literature review chapter. The chapter is organised with the review of the four concepts that is used throughout this research, namely, innovation, cooperation, informality and trust. The review will discuss how the concepts are applied and consolidated in this research.

Chapter 5 examines the methodology and research design of the research. This chapter explains the justification for choosing the Grounded Theory method to guide the research in collecting data until the process of the data analysis and interpretation of the data. Other techniques of research are also discussed, such as the choice of sampling, qualitative interviewing, and research ethics.

Chapter 6 deals with question 6A, which aims to explore how innovation and cooperation occurs as well as fostered within the teams of incubatees. Analysis of data drawn from the fieldwork will be presented in this chapter.

Chapter 7 is about answering question 7B. A detail examination on the concepts of trust with the data acquired in this study will be presented.

The final chapter will be Chapter 8, which is the conclusion chapter. Here I will discuss the main findings of this study and then followed by discussing the contributions that this study has made. This will also be followed with a discussion on the limitations found in this study and on potential future research. I will end this thesis with a short final remark.

Chapter 2: The Social Cultural Context of Brunei

2.1 Introduction to the country of study: Brunei Darussalam

Brunei Darussalam or Brunei is one of the member states of the Association of Southeast Asian Nations (ASEAN) (See Map 1). It is situated on the northwest coast of Borneo Island and occupies 5765 square kilometre of land area that borders with the Malaysian State of Sabah and Sarawak as well the South China Sea. Brunei is divided into four districts; Brunei Muara, Belait, Tutong, and Temburong (see Map 2). The capital of Brunei, Bandar Seri Begawan is located inside the Brunei Muara district, in which the district also has the highest concentration of population.



Map 1 – Brunei Darussalam regional map

(<https://www.thoughtco.com/faq-about-singapore-195082>)

The estimated population for Brunei in 2018 was 442,400 with those aged between 15 and 64 years old making up nearly 75% of the population, 21% are those under 14 years old and those above 65 years old at 4%. Ethnically, there are three main

categories of population in Brunei; the Malay is the majority with 66% of the total population, the Chinese at 10.5%, and the other ethnicities at 23.5%. The main language spoken, and official language of Brunei is *Bahasa Melayu* (Malay), although English is also widely used in daily conversation as well as for business purposes. Other communities like the Chinese and other indigenous groups such as Dusun and Murut also practices their own cultures and languages.

Brunei has a unique political system in which it is the only country in the Malay world that is still governed and ruled by the traditional system of monarchy. The current monarch, Sultan Haji Hassanal Bolkiah, is the 29th ruler with an unbroken royal lineage dated back to the 15th century. The national ideology, *Melayu Islam Beraja* (MIB) or Malay Islamic Monarchy further solidified the monarchical institution with Malay and Islamic values playing important role in strengthening the royal institution.



Map 2 – Brunei Darussalam country map

(http://www.worldportsource.com/ports/maps/BRN_Port_of_Muara_1665.php)

Islam is the official religion of Brunei Darussalam. Historical account traced the beginning of Islam in Brunei back to the first sultan, Sultan Muhammad, who

embraced Islam in the early 15th century. Since then, Islam begins to grow in Brunei and has deeply influenced the culture of the people and the country as a whole.

Brunei economy is largely dependent on its oil and gas revenues. The discovery of oil in 1929 has shifted the country's destiny to become one of the largest producers of oil and natural gas within the Southeast Asian region. The oil and gas sector provide nearly 70% of Brunei GDP – approximately US\$10.8 billion annually. Other sectors contributing to Brunei GDP includes the government sector (11.7%), construction (2.7%), wholesale and retail trade (3.2%), finance (2.8%) and business services (3.1%). In total, Brunei earns around US\$16 billion for the year 2011 – (Oxford Business Group 2013: 26). In addition, the Brunei Government also owns the Brunei Darussalam Investment Agency (BIA) that manages the country's external assets. The Sovereign Wealth Fund institute estimates that BIA reserve fund is worth approximately US\$30 billion (Ibid: 29).

However, as oil and gas are non-renewable resources, there has been concerned on the prospect of the dwindling of the oil and gas industry. It is estimated that Brunei has an oil reserves of 1.1 billion barrels (Ibid: 27). However, at the current rate production, Brunei only has 18.2 years before these reserves ran out (Ibid). Thus, in recent years the Brunei government has intensified its economic diversification plans to reduce dependence on oil revenues. In addition, to achieve its vision to become a developed country with a robust economy, several promising sectors have been identified for economic potentials namely the “petrochemicals, pharmaceuticals, food products, halal products, and the Information and communications technology (ICT)” (Oxford Business Group, 2011: 28).

2.2 Values - Asian and Brunei context

Because Brunei is geographically located on Borneo Island in Southeast Asia, and surrounded by Malaysia as its neighbour, it is evident that both Brunei and Malaysia share many similarities in terms of its values and cultures. Moreover, these similarities are also due to the Malays being the majority ethnic populations of both countries. As suggested by Hamid (1999) and Metzger (2007), the three majority Malay countries, namely, Brunei, Malaysia and Indonesia share many similarities in

terms of culture as well as norms and values. In addition, due to the contentious discourse when it comes to discussing what is regarded as Asian values (King, 2008) as well as the absence of a substantial body of research on Asian values, therefore, adding to the similarities that was mentioned, we could utilise Wong and Yeoh's (1998) analysis of Asian values that is generally compatible in Malaysian society and apply it to the context of Bruneian society (see Table 1). Nonetheless, one should take note that despite the many similarities of values that both Brunei and Malaysia shares, it could be argued that there are also dissimilarities due to some obvious reasons. The most apparent one is on the concept of society in Bruneian and Malaysian context. Malaysia adapts a plural society concept to define its three main ethnic groups, i.e. the Malays, Chinese and the Indians. While the concept of society in Brunei is centralised to the 'Malay' society which according to Brunei's constitution is divided into seven ethnic and indigenous groups, namely, the Brunei-Malays, Belait, Tutong, Kedayan, Dusun, Bisaya, and Penans. Thus, it could be assumed that not all the values practiced in Malaysian society are applicable in the context of Bruneian society. Secondly, due to the nature of the plural society in Malaysia, religion is a sensitive issue and needs to be threaded carefully. In the Brunei context, the official religion is Islam and the cultural and the governmental system itself is highly influenced by Islam. As a result, the Bruneian culture is highly interwoven with Islamic values and most societal as well as governmental decision must follow or at least adhere to the Islamic principles. As put by Wong and Yeo (2004):

"As such, though it is widely accepted that there are broad similarities in the values to which many Asian countries subscribe, it may not be entirely accurate to call them 'Asian' values. Each nation within Asia possesses a culture that is generally 'Asian', and yet is distinct in the sense that each is a product of the interaction and integration, or to some extent assimilation, of unique subcultures within the nation". (Ibid: 234).

From the statement above, it could be deduced that despite the general similarities that can be found across many Asian cultures, it is still crucial to have a thorough understanding of the unique underlying assumptions and specific characteristics of each individual Asian nations. Thus, the discussion will now move to the topic on Bruneian values and its relation to the concept of trust. This is important in order to understand the experience of trust amongst the incubatees and how the incubatees' decision and organisational conduct are highly influenced by their social cultural background.

Asian / Malaysian values
<ul style="list-style-type: none"> • The importance of 'face' or maruah (dignity) • Orientation towards the community • Loyalty to the community and to the family • Social cohesion and harmony • Emphasis on the middle way or the path to moderation • A strong work ethic and capacity for hard work • Filial piety and respect for elders • An emphasis on the importance of education

Table 1. Asian and Malaysian values as dictated by Wong and Yeoh (2004: 234).

2.2.1 Trust in Asian Values

Before I proceed with an in-depth discussion about trust in Brunei society, I offer an overview on how trust is seen in the context of Asian values. The purpose of doing this is to provide explicit understanding on how trust works within the Asian context,

which is highly different from the Western context. Moreover, by looking at the bigger picture first, i.e. the Asian values, it would then be much easier to understand how trust plays a role in the setting of this study. In addition, one should also take note that despite having its own uniqueness, many characteristics of the Bruneian values itself has many similarities to the Asian values, thus making the following discussion imperative to the understanding of trust in the Brunei context.

As far as the study of trust is concerned, there are clear differences between “the ‘Eastern’ and ‘Western’ concept of trust” (Kidd and Richter, 2014: 12). Take for example, when it comes to dealings in business transactions. Kidd and Richter (2014) point out that business partners in the West tend to stick to “arm’s length transactions” where people strongly hold the belief in the ‘rule of law’ in which “if we cannot understand the words of the contract, the ‘law’ will sort it out”(Ibid: 12-13). What it means here is, in the West, business transactions tend to occur “in a low level of mutual dependency” (Ibid: 13). Such conduct however will not be taken lightly in the Asian context. In fact, the action is rarely favoured in the Asian context that relies more with a ‘relationship-based system’ that seek for a high level of mutual dependency (Ibid) and as a result there is a need to foster a strong trust relationship with others.

The collectivist nature of the Asian society becomes the primary foundation of trust in Asian values. In fact, as suggested by Kidd and Richter (2014), the Asian form of “mutual trust and inter-organizational relationships manifest themselves in a variety of different forms” (ibid: 14). Thus, for example, the Confucian principle of *Ren* (to be able to relate to others) and the idea of having *renqing* – which refers to human feelings, are norms to majority of Asian nations (Kidd and Richter, 2014: 14). Thus, for example, as in the case of China, the *guanxi* networks (interpersonal relationships) shapes the trust between one person and another. Equally, the Japanese *nomunication* serves to strengthen relationships and trust amongst staff members, business partners, as well as customers of a company (Ibid).

In addition, Asian values also put much stress on ‘face saving’ (Bond, 1994), not just for the sake of the individual but also for the other person that he/she is dealing

business with. This is very much the opposite from the Westerner, which are often more individually brash and aggressive in their conduct (Kidd & Richter: 13). Equally can be said when it comes to the style of communication in doing business. Different from the Western culture which emphasised on need for clarity in expressing opinions and intentions as well as to put them in logic sequence (Kidd & Richter, 2014: 12), the Asian culture is more of a mellow case. For example, when it comes to expression in speech, the Japanese rather resorted to *oku fukai* (deep and wide) and *ganichiku no aru* (suggestive) expression rather than being explicit and coherent as in the Western culture (Ibid: 13). This way of conducting “silent discussion” may not be acceptable in the Western way of doing business (Matsumoto, 1988).

Following the discussion so far, it is evident that the concept of trust in Asian values is perceived differently from those in the Western ones. As previously mentioned, this discussion will look at the subject of trust in relation to the Bruneian values. In order to understand Chapter 7, it is crucial to have some sort of understanding about Bruneian values, which in turn will aid in the understanding of the answer to question 7B. Therefore, it is also essential to examine the context of this study together with our discussion on trust. What is meant with the context of this study is about the culture, norms and values of the country where this study has taken place, i.e. Brunei Darussalam.

2.2.2 Bruneian values – The construction of trust and identity

As with many other cultures and nations across the world, Brunei itself has its own distinctive cultural identity. As explained before, in general Brunei shares many similarities with other Asian values, particularly with Malaysia. However, due to some distinct differences in ethnic and political background, it is also evident that there exist some differences of values between the two nations. However, since both Brunei’s and Malaysia’s major ethnic population are the Malays which are also the ruling power, thus, it could be said that the people of both countries relatively share the same values.

Jukim (2014) gave a detail discussion on the meaning of Bruneian values and the construction of identity within the Brunei context. In his research, he postulates that

the typical 'Bruneian identity' is characterised by three type of entities, i.e. individual, family, and community (Ibid: 146). It is these three entities that help shape the values and norms and act as a mechanism in enhancing the strong collective sense within the Bruneians. For Hamid (2009) the three said entities also ingrained individual Bruneians with many positive Brunei Malay values, to name a few, such as; filial piety and respect for the elders, respect to customs, compassionate, diligent, and faithful to Islamic teachings. Metzger (2007) on the other hand, emphasises on the three core entities of "religion, language, and the monarchical system" to describe how identity is formed amongst Bruneians (Ibid: 23). He further argues that the core entities are translated to form the concept of "Malay Islamic Monarchy" which is often used in the Brunei context (Ibid).

In relating to the concept of trust in the context of Brunei society, Jukim (2014) contends that trust cannot be seen as an isolate personality but more to as an interwoven of various characters such as being well-mannered, courteous, sensible, polite when conversing with others, and to be considerate and kind in his/her actions as well as in decision making that are deemed compatible with the Bruneian ways (Ibid: 148). Moreover, the trust concept is also intertwined with other characters such as being honest, truthful, sincere and humble (Ibid: 151). These whole characters are known as *Budi* whereby every individual Bruneians are expected to practice them as part of their personality and identity as a true Bruneian. According to Hamid (1999), the term *budi* in the Brunei society reflects to three major aspects, namely; *budi bicara*, *budi pekerti* and *budi bahasa*⁴. *Budi bicara* stress the importance of being wise in thinking and decision-making, *budi pekerti* is on having good manner, and *budi bahasa* emphasise the importance of being courteous when having conversation with others. The trust concept is therefore embedded within the combination of these three aspects. In addition, it is the *budi* that shapes the person to become a responsible person as well as a saviour that protects his/her family, kin, community and his surroundings (Jukim, 2014: 149). Thus, within Brunei society, for

⁴ Without all these identities, trust within the context of the Brunei society will cease to exist. It could be argued that the three identities developed through close interactions and requires a considerable amount of energy and time (symbolic interactionism theory) for it to concretise within a relationship.

a person to get complete trust from others, one must show good understanding and control of all the three aspects that will earn him or her with the title, *budiman* (which literally means benevolent). To sum up, it can be argued that the meaning of trust in the Brunei context is a mixture of many characters that goes hand in hand with the collective nature of the Brunei society and values.

2.2.3 The study of values in workplaces

Having discussed the importance of values within the Brunei context, this section will discuss and examine the significance of values in workplaces. As this thesis is about the incubatees experience at their workplace, i.e. iCentre Brunei, and because the discussion so far (and in the findings chapters) touches on values, thus at this point it is worthwhile to look into some studies that examines how values influence working individuals and their organizational cultures. Simultaneously, this section will also clarify the differences that this study has with studies on values in connection to workplaces and organisations.

The importance of understanding values is not exclusively confined to the conventional way of studying peoples or cultures, or in the context of this study, the close connection between Bruneian values and trust. In fact, research on values in explaining individuals' actions in workforces and workplaces has become more critical nowadays (Tung & Verbeke, 2010; Schein, 1992) due to the process of globalization and the increasing trend of workers moving and migrating around the world and working in diverse cultures (Terpstra-Tong & Ralston, 2002: 373), "thus creating a strong need for cultural adaptation" (Vlajcic and Dabic, 2019: 105). For example, business studies research frequently put values as "an important cause and outcome of most goal-oriented action by individuals, organisations and societies" (Ralston, Russel, & Egri, 2018: 1189). Other studies also show that global workers' values are increasingly becoming more heterogenous due to the culturally diversifying labour markets (Ralston et al., 2014; Taras, Steel, & Kirkman, 2016; Tung, 2008), although there are also numerous studies that refuted such claim (Greenfield, 1997; Hofstede, 1980; Neghandi, 1975). Such arguments are often highlighted in the debate about divergence and convergence of values both at the macro-level and

micro-level influences in groups and organizations (Ralston, 2008; Chiang and Birtch, 2006; Hofstede, 1998). The divergence view suggests that despite the homogenizing effects of globalisation both in economic and social spheres, individuals are still holding on to their own values (Jaeger et al., 2018; Khilji, 2002). Simply put, cultures are actually “becoming more dissimilar” (McGaughey and De Cieri, 1999). Conversely, the convergence view suggests that the forces of globalisation such as the growth of global organisations and the diffusing effect of their management practices and values, as well as the increasing usage of the internet and the global business usage of the English language, have all contributed to the convergence of values where the world is moving closer altogether and the decreases of cross-national differences (Caprar, 2011; Jaeger et al., 2018; Khilji, 2002; Lui et al., 2004). Since then, new terms and meanings have been introduced in international management literature to describe new practices that relates values and organizational functioning and effectiveness such as the term ‘crossvergence’ (Ralston et al., 1997) and ‘groupvergence’ (Jaeger et al., 2018) which explains how employees and organisations adapt to changes in values and so on.

When it comes to the discourse on values, business studies tend to be interested in identifying universal values amongst individuals that drives their goal-oriented behaviour which might influence management, recruitment and other practices in multinational corporations (Ralston, Russel, & Egri, 2018: 1189). Often results of such studies are cross-referenced with individual level measurement models, for example, Rokeach Values Survey (Rokeach, 1973), Chinese Values Survey (Chinese Culture Connection, 187) and Schwartz Values Survey (Schwartz, 1994a, 1994b). Thus, for example, research by Ralston, et al. (2011) was an extensive assessment of values dimensions across the global workforces comprising of business managers and professional across 50 societies that employs the Schwartz Values Survey (SVS). This study utilises survey questionnaires and the data collected were tabled using quantitative calculations, i.e. Cronbach’s (α) statistics to produce the standardised scores for each set of values dimensions (Ibid: 11). In brief, the study reported on consistencies of several sets of values dimensions across the sampling as well as some internal consistency problems caused by using the SVS model (Ibid: 18). In

another study on business values dimension by Ralston, Russel and Egri (2018) also uses the SVS measurement to analyse their statistical data. The study reported on matters of validity using an improvised type of measurement, i.e. BVD (Business Values Dimensions) to “study the values/behaviours of individuals working in business organizations” (Ibid: 1197). Another study by Dabic, Potocan and Nedelko (2017) examines personal values in supporting enterprises’ innovation in Slovenia and Croatia. The study also utilises survey questionnaires in which the collected data was analysed using mixture of statistical measurements comprising of descriptive statistics, Pearson correlation coefficients, Mann-Whitney U test and Factorial ANOVA test (Ibid: 1249-1250). The study found out that there are discrepancies in preferences and perception of important personal values amongst the employees in Croatia and Slovenia that affected their innovativeness and working experience (Ibid: 1258-1259).

Having discussed the above, two related questions are posed; what then can we deduced from quantitative studies on values? And in relation to this study, how are values analysed differently from studies that use framework measurements to assess values? The answers are as follow. One, due to the usage of survey questionnaires in acquiring data across many organizations in different societies, to some extent, it can be deduced that there is a tendency that the outcome of quantitative/framework measurements of values tend to be regulated. In other words, values are given the same meaning across all societies. Thus, the local meanings and perceptions of the various values are put aside to make way for a general and more accommodating meaning. On one hand, one can argued that this is the strength of quantitative approach because of its practicality for the analysis of a large sampling and to get a general understanding of a situation. On the other hand, it is also essential to have a deeper understanding of the perceptions and meanings that individuals placed on certain values. Take for example the research on personal values in Slovenia and Croatia employees by Dabic, Potocan, and Nedelko (2017). Even though the research utilises quantitative methodology, they also concluded that the Slovenia and Croatia employees’ perception of personal values on innovations are significantly different (Ibid: 1259). However, these differences were not discussed in much detail, in which

a qualitative research will be able to offer. Therefore, in the context of this study, it uses a qualitative approach as opposed to the quantitative approach that business studies consistently use in analysing values. Furthermore, by using symbolic interactionism as a tool for analysis, this study seeks to explore the deeper meanings behind the values practiced by the incubatees and how these values foster their teams' cooperation and innovativeness. I will discuss further on this study's qualitative approach and on symbolic interactionism as tool for analysis in the methodology chapter of this thesis.

2.3 Summary

This chapter describes the geographical background of Brunei and its socio-cultural aspects that is relevant for this study, i.e. on values. The discussion on values are linked with the topic of trust which are viewed in a macro and micro perspectives. The macro perspective links Bruneian values with the Asian and Malaysian values and the micro perspective examines Brunei values as an identity for the Bruneians. In this regard, the Brunei values or *Budi* is important in Bruneian society as it completes a Bruneian identity. Moreover, trust is embedded within the Brunei values of *budi* and therefore it is essential to practice and adhere to such values in order to gain complete trust from others.

In business and organisational management studies, the importance of values amongst employees are frequently highlighted due to the process of globalization and the increasing trend of workers from diverse cultures moving and migrating around the world. This include the discussion on theories about values such as on divergence, convergence and others. Apart from the theories, business studies also tend to use individual level measurement framework to measure values, for example, Rokeach Values Survey, Chinese Values Survey and Schwartz Values Survey. Combined with quantitative approach and statistical calculations, these measurement models provide an overview of values both at the employees' personal/individual level or organisational/management level. Here I argued that such approach is a strength of qualitative analysis, but it might also disregard the real perceptions and meanings of values given by each individual society. This study

however offers a qualitative approach in contrast to the quantitative approach that business studies consistently use in analysing values. In addition, this study is also using symbolic interactionism as a tool for analysis of the fieldwork data in order to explore the deeper meanings behind the values practiced by the incubatees and how it influences their teams' cooperation and innovativeness.

Chapter 3: The iCentre Brunei

3.1 Introduction

The aim of this chapter is to introduce the actual setting of this research, that is, the iCentre Brunei (iCB) and the incubatees that developed apps. In-order to give a clear, as well as comprehensive and flowing discussion, this chapter will be divided into several sections. Section 3.2 is about ICT development in the Brunei context. Section 3.3 details the background information of the iCB particularly looking into the administrative structure of the institution as well as its role in the development of ICT in Brunei. Following will be section 3.4, which is background information about developing apps. This section basically explains about the apps industry and the challenges of building apps. Before embarking on a critical discussion about the iCB from the perspective of the incubatees in section 3.6, section 3.5 will discuss briefly on relevant literatures relating to incubation centres, which I believe is relevant to understand the roles of iCB. Section 3.7 is another critical discussion about the experience of the incubatees in relation to the trainings programmes provided by iCB cooperation within the incubatees' teams. This chapter will close with a summary in section 3.8.

3.2 ICT sector development in Brunei Darussalam

The *Wawasan Brunei 2035* (or The Brunei Vision 2035) is Brunei Darussalam's long-term development plan to become a centre of technology, education, health care, and finance by the year 2035. To achieve this goal, the Brunei Government is prioritising ICT development to speed up the process as well as to improve the services of the said sectors. Moreover, the government plans to increase the contribution made by the IT sector to the economy from 1.6% in 2010 (approximately BN\$183.4 million or US\$147.8 million) to 6% by 2015 and to 10% by 2024 (Oxford Business Group, 2011: 121). With its highly educated workforce (thanks to its free education policy from primary to university level), Brunei is ranked second highest in Human Development Index ranking among Southeast Asian nations (the first being Singapore). Brunei is also second in Southeast Asia by The World Economic Forum in

terms of Network Readiness Index (Oxford Business Group, 2013: 102). The government efforts in prioritising ICT development also shows that it fares at global top 35 within three areas, namely, importance of ICT to government vision of the future (rank 31), government procurement of advanced technology products (rank 32) and government prioritization of ICT (rank 34).

Within the global ranking, Brunei Darussalam is ranked 14 in 2013 for both its individual Internet usage as well as Internet data access by mobile devices. The 2017-2018 Global Competitiveness Index indicates that 75% of Brunei population are active Internet user (Compared to 71% in 2012). This further shows how Internet is significant in the daily life of the Brunei people.

3.3 The iCB – An ICT incubation centre.

The iCB is an ICT incubation centre located in Kampung Anggerek Desa in the Brunei-Muara district. The centre was established in 2008 by the Brunei Economic Development Board (BEDB) with the aim of encouraging the development of innovative and knowledge-based start-ups and enterprises in Brunei. It also aims to nurture local ICT companies through to the forefront in developing new and innovative products and applications. The iCB also vision itself to “continuously provide an environment for the sustainable development of ICT based start-ups via accelerant skill-building programs as well as focusing on knowledge gaps and improving them through a mentorship and networking system” (iCB website).

In its effort to ensure the iCB is upfront with the dynamic business environment, BEDB has signed a management contract⁵ with a Singapore based company, KR Consulting (a business unit of National University of Singapore) to provide and conduct the proper trainings for the start-up companies (See Diagram 1 for the structural organisation of the iCB).

⁵ This contract was renewed in 2011 (valued at BND\$6.7 million), where the KR Consulting agrees to provide the said services for additional 4 years.

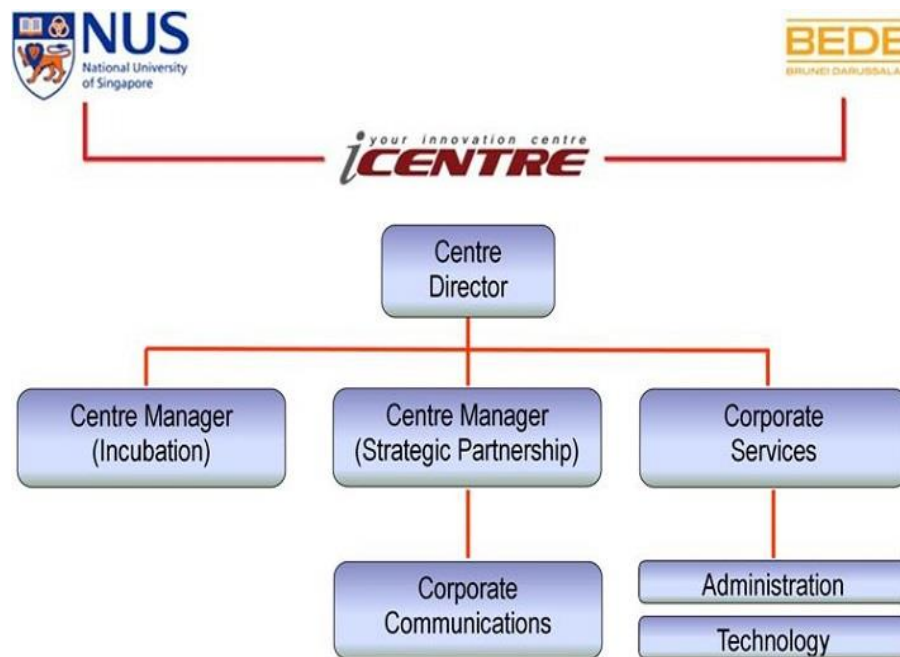


Diagram 1. Structural chart of the iCentre Brunei. Source: iCentre Brunei Website.

Equally the iCB also provides facilities to assist its incubatees, such as subsidized office space, shared meeting rooms and auditorium, business skills training /workshop, exposure trips, fund raising assistance, and enterprise development assistance.

To date, 30 local start-ups companies has graduated from the iCB incubatorship programme with various specialisation related to ICT, particularly those linked to local needs like home security IT software, and online halal food verification system. Some of these former incubatees has managed to get international recognition and has attracted partnership with foreign companies (Oxford Business Group, 2013: 109). For example, a former iCB incubatee, Cyberunai eServices has formed a joint venture with Indian IT firm ProXS Infocomm Limited back in 2012 with focuses on embedded technology; radio frequency identification (RFID); and mobile applications (Brunei Times, 21 March 2012).

In addition, most of the present incubatees focus on building applications (better known as 'apps') for the Apple iOS or Android platforms. So far, two incubatees have shown prominent success stories – Infindo and Mesixty. The first received a \$1.1

million funding from a Singapore-based venture capital fund, Accel X⁶ to develop mobile applications particularly for Apple iPhone and iPad (Oxford Business Group, 2013: 109). The second won the Red Herring's Top 100 Asia awards 2012, which is an international renowned award that recognises promising new companies and entrepreneurs. They also won the APICTA Merit award 2012 in tourism and hospitality category for their tourism apps (Mesixty website).

In recent years, the iCB incubatees have produced apps for both the local Brunei market as well as for international market. For example, Infindo had released more than forty apps on various ranges of smartphone platforms such as the English Premier League app and the Formula 1 app. They had also developed apps for private companies, such as Kentucky Fried Chicken Brunei (KFC) app and Hyundai Brunei app (Brunei Times, Dec 9, 2011; Infindo Technology website). Aside from that, their biggest achievement was the World Cup app back in 2010, in which it became the world's second most downloaded app on the iPhone during the World cup season (Brunei Times, Dec 9, 2011).

From what has been described above, although some of these companies were housed at the iCB, but they had an extensive experience in building apps. In addition, the incubatees were also eligible to apply for other BEDB grants, such as the Start-Up Brunei grant (SUB) (which amounted to BND\$50, 000) or the LEAP grant (maximum grant up to BND\$150, 000 per application). At the time when this study was conducted, there were 20 ICT and Multimedia companies registered as incubatees at the iCB of which 14 were physically based there.

3.4 A short background about apps

Before I proceed with explaining in more details on the structure of this study, it is worthwhile to look at some background information about apps. This section will also look at the challenges that app producers have to face, both in terms of developing apps and selling apps in a highly competitive market.

⁶ This Singapore-based company has signed an agreement with the Brunei Economic Development Board and contributed US\$5 million into the fund (The Report Brunei Darussalam 2013: 109).

To begin, what is 'app'? App is an abbreviation to the word 'application' which refers to computer software application. Since the opening of the App store in 2008 by the tech-giant company, Apple, app has become a hit among the user of mobile devices, particularly smartphones and tablets such as iPhone, iPads, and so forth. App operates on various operating systems, with the most popular one being the Apple iOS and the Android operating system. As much as it is popular among the users, the same can be said on those who create apps, i.e. the 'app developer'. Such popularity of creating apps is probably reasoned on passion or hobby. However, the most substantial reason for such urges is primarily due to the capital that the app industry annually generates. Research has revealed that the global app industry had generated an estimated US\$39 billion in 2013 (Juniper research, 2013) and in 2019 it has increased to US\$476 billion (Statista, 2019). Moreover, previous research also revealed that the in-app mobile adspend (the spending by advertiser to advertise in app) would reach \$16.9 billion by 2018, up from \$3.5 billion in 2013 (Juniper Research, 2014). Thus, with all the current sky-high figures, it is not surprising to see that countries around the globe have focused their priorities in developing the app industry. This includes Brunei Darussalam, the country where this research sets.

Despite the impact that apps have on our daily lives, it is surprising to see that so little work has been done to socially explain the process of its existence (For example in relation to the SCOT model⁷). Most research that has been done on apps concerns on its content, usage and how it has impact on our daily routines (For example, Higgins 2012; Squire and Dikkers 2012; Cheng 2012; Pan, et.al;2012). The work by Allen (2003) is probably the closest thing to explain how mobile applications can be seen in a sociotechnical perspective. However, as the study focuses on Personal Digital Assistance (PDA) which is nowadays considered as obsolete (due to the invention of smartphones), thus it is essential to renew the study. Moreover, some

⁷ Although the number of mobile apps in the app market has reached nearly to two million, there has been no specific study that attempt to link the process of developing apps with the theory on the Social Construction of Technology, also known as SCOT. The fact that apps occupy the screen and the content in mobile devices such as smartphones, iPads, and other tablet gadgets, and the fact that mobile phones are the most used technology in history (Comer and Wickle, 2008; Horst and Miller, 2006; Squire and Dikkers, 2012), could only mean one thing; that app plays an important and significant role in our daily lives.

aspects within the study are no longer relevant in explaining the current situation on mobile applications as new technology has allowed some unsuccessful aspects in the PDA world to be successful within the present-day smart devices⁸. Another significant work relating to this study is by Bergvall-Kåreborn and Howcroft (2013) which examine the working experiences of Apple and Google mobile application developers in Sweden, the UK, and the US in relation to the socioeconomic changes. In the study, they found out that app developers are increasingly becoming entrepreneurial but equally the nature of their work also becomes precarious (Ibid: 971). Moreover, as app developers must work using the development platform provided by either Apple or Google Android, thus, app developers are restricted in exercising self-control (i.e. 'to independently plan, control and monitor their work activities') (Ibid: 971-972). This leads to what has been termed by Brabham (2008) as 'crowdsourcing'. In other words, in order for both Apple and Google to avoid paying app-developers to build their apps, thus, they allow for people to use their app development kit, so that they could produce apps that could only be sold within the specific distribution platform – Apple store for Apple apps, and Google store for Android apps (Bergvall-Kåreborn and Howcroft, 2013: 965; 967-968). The following excerpt explains the phenomena of the crowd sourcing practiced by Apple and Google company:

Crowdsourcing mobile applications entails a move away from salaried forms of exchange within an internal labour market to an external market of competing contractors, thus allowing large firms to avoid the incurred costs of the direct employment contract while profiting from the productivity of what is effectively a volunteer workforce (Ibid: 965).

Therefore, regardless of where app developers are located, their cultural background, and so forth, they are bounded by this phenomenon of 'crowdsourcing'.

⁸ According to Allen (2003), "In the PDA world, attempts to produce only application soft-ware, a new operating system, or hardware before a new technological frame established itself were relatively unsuccessful" (Ibid: 35). Software applications (apps) made up almost the entire content of a smart device nowadays which runs on specific operating system such iOS for Apple products, and Android for some others.

Thus, the broader context of this phenomenon is relevant to understanding the dynamics shaping the work experience of app developers.

3.5 Incubators in literature

In the beginning of this chapter, an introduction was made about the iCB, focusing on the technical and organisational structure of the place. In this part, the discussion will focus on defining the role and clarifying the position of the iCB. To do this, I will make use of specific literatures on incubators and integrate them in my discussion about iCB.

Literature on incubators has often described incubators as organisations that create conducive spaces and supportive environment for novice entrepreneurs to establish their firms and businesses (Bergek & Norrman, 2008: 20; Peters et al., 2004: 83). Incubators are often viewed by government, private sectors as well as policy makers as a medium for promoting local entrepreneurship which has proven to boost economic development, promote innovativeness as well as the development of technology based firms (Bergek & Norrman, 2008; Grimaldi and Grandi, 2005; Mas-Verdú, et al., 2015). Thus, every so often incubators are seen as “... popular tools to accelerate the creation of successful entrepreneurial companies” (Bruneel et al., 2012: 110). Mas-Verdú, et al. (2015) gave a succinct summary of the general role and task of the incubators as well as the primary objective of incubators towards their incubatees⁹:

“Incubators produce successful firms; these firms can leave the incubator once they are independent and financially viable. At this moment firms graduate from the incubator. The primary objective of incubators—namely, producing successful firms—fits within their general purpose, which is to stimulate innovation and regional development. Therefore, a key function of incubators is to assist future entrepreneurs as they initiate their business activities. This assistance includes

⁹ This succinct description can also be applied to define the role and objectives of iCB.

providing entrepreneurs with basic infrastructures, financial resources, and different types of services and information necessary for creating start-ups. Incubators act as catalysts for entrepreneurship.” (Mas-Verdú, et al., 2015: 793).

Research on incubation centres also shows that there are many variants of incubation centres, each with its own characteristics, role, objectives, models, and services (e.g., Barbero, et al., 2012; Bruneel et al., 2012; Etzkowitz, 2001; Grimaldi and Grandi, 2005; Mas-Verdú, et al., 2015; Rubin et al., 2015; VonZedwitz and Grimaldi, 2006). In addition, studies also show that incubators tend to boost local economic development by fostering business and creating employment (Mas-Verdú, et al., 2015; Phan, et al., 2005), although some studies (e.g., Massey et al., 1992; Phan et al., 2005) have rejected such claims. Nonetheless, there is much anticipation on the potentiality of incubators as a tool for economic rejuvenation (Bruneel et al., 2012: 110). Therefore, it is not surprising to see a marked increase in the numbers of incubators in recent decades (Bruneel et al., 2012; Knopp, 2007) which involved large amounts of money invested by governments, universities, research institutions, and private companies (Bergek and Norman, 2008: 20).

So far as discussed, in general it could be said that the iCB is not different with many incubators in terms of its role. As described earlier, the iCB is a state-run incubation centre or to use a precise term, a ‘public incubator’ (Grimaldi and Grandi, 2005: 112). The iCB was established as an effort by the Brunei Government to develop Brunei’s economy in other sectors as well as to empower young entrepreneurs in technology-related fields and businesses. Despite being a state-run incubator, the organisation and programme structure of the iCB could be categorised as a ‘University Business Incubator’ (Grimaldi and Grandi, 2005) with greater emphasis on ‘technology-based firm creation’ (Mas-Verdú, et al., 2015). Thus, most teams of incubatees at iCB are involved in technology-based innovation specialities such as 3D animations, e-commerce, videography, e-education, mobile apps, etc.

Studies on incubators are generally looking into issues relating to the performance of incubators and their capability to support new incubatees, start-ups and ventures

to become self-sustaining and successful companies (e.g., Bruneel, et al, 2012; Bøllingtoft, 2012; Grimaldi and Grandi, 2005; Hackett & Dilts, 2004; Hansen, et al, 2000; Lalkaka, 2003; Peters, et al., 2004; Phan, et al., 2005; Scillitoe and Chakrabarti, 2010; Schwartz, 2008, 2013; Vanderstraeten and Matthyssens, 2012). It is also evident that most research on incubators or incubation centres are mainly dominated by subject areas of business, economics, management as well as science-technology-based research, and therefore making a sociological research in this area to be quite uncommon. This study intends to fill in some of the gap and integrate sociological analysis in its findings.

3.6 The iCentre Brunei – a state-run incubator

The iCB is an ICT incubation centre that houses several teams of incubatees who specialises in technology related fields. The main goal of the iCB is to stimulate entrepreneurship and assist the incubatees in their journey to become thriving entrepreneurs. To achieve the goal, the iCB like many other incubators provides the incubatees with various services such as access to workspaces, trainings, and supervisions. However, unlike many incubators, the iCB also make available generous amount of financial grants to its incubatees. In addition, most of the services were highly subsidised and the incubatees only had to pay a small rental or fee to access them.

As a state-owned institution, the iCB has a well-known reputation within the business community in Brunei. This is due to the iCB's close affiliation with the Brunei Economic Development Board (BEDB)¹⁰ that deals with the economic development projects in the country particularly those involving government initiatives projects (iCB is one of the initiatives). In addition, the stringent selection of the incubatees

¹⁰ The Brunei Economic Development Board is a Brunei Government institution that plays a role in growing and diversifying Brunei Darussalam's economy. The primary focus of BEDB is on strategic initiatives that will contribute towards economic development through the increase of export-oriented industries as well as spin-off opportunities for local businesses, thereby providing more employment for locals. The BEDB also acts as a frontline agency to facilitate foreign investment into the country and will work closely with investors to understand their business needs. The BEDB will assist in providing information on the local investment climate, developmental requirements, laws and regulations, cost of doing business and project specific information (Info from BEDB website).

prior to them enrolling at iCB also contribute to their positive image. The incubatees were carefully selected from a pool of start-ups firms who wish to join the iCB. Only those teams that have managed to showcase an outstanding business plan and potential product(s) will be selected by a panel of high-profile business expertise to enrol into the iCB as incubatees. This stringent process of selection is exemplified by an iCB official:

“Basically, we have a team of international and local experts to actually look at the whole technical, technology and multimedia as a base. So, when we do have applicants coming to iCB, we actually look at their business plan which is very important, because the business plan will tell us a lot about what problem they are solving and what is the solution and how is it validated. So we have a team of experts looking to that alone, so if they come through us first, we at iCB will, at first stage, we will look through the whole business plan and then we will call for a committee which includes directors, senior management from the private and public sector. So, we have director from EGNC [E-Government National Centre] and director from, sometimes even the banks, local banks and they all will come in and validate the idea. So, it's just not the idea but how in terms of financial, in terms of market creation, in terms of marketing, we actually look through the whole space. And also, we get a lot of feedback from venture capitalists and angel investors who are investing in high tech start-ups. So, these guys they go through at least twenty business plan a day, so they know what is up and coming, they know what's the trend, they know what to do and what not to do.” (i12, Male, Official)

Therefore, based on the two primary reasons above (i.e. the affiliation and the stringent process of selection), the iCB is considered by local (and to some extent international) business community as a reputable institution where potential collaboration for business deal could surface¹¹. Analysis of the data of this study shows that the high reputation of the iCB plays a significant reason for the teams of

¹¹ Businesses usually look for good companies to help them with producing certain technology related products, such as apps. Due to the stringent selection process, the teams of incubatees at iCB are often considered to be very reliable for the job.

incubatees to choose to enrol into the iCB. Moreover, many of the incubatees' team founders revealed that they are keen to be affiliated with the iCB due to its prominent reputation particularly when it comes to business dealings. A team founder highlighted this matter in the following excerpt:

"I don't know about other countries but in Brunei there's this tendency to 'if we don't get recognise, we will not get the appropriate response'. Like for example, before we became a part of iCB, we'll go around and telling people, "We are Company A". And we've been trying to sell our app for a year... more than a year now. We'll go to restaurants, we go..."We're from Company A". "Oh yeaa.. Company A... oh yeaa.." [The response from others] (He made apathetic sound). But suddenly when they hear the words like BEDB, the Brunei Economic Development Board, and they go like "Owh..owh.. This is big... This is really big". Or they go "iCentre, owh... this is big!". Then they take you seriously." (i3, Male, Co-Founder)

Another team founder also explained that the decision taken by his team to join the iCB was not significantly due to the need for workspaces and the utilities that the iCB provides but largely because they needed iCB recognitions to market and to sell their apps. Thus, the founder explains:

"Aside from affordable cost such as the subsidy given with the rental of the office, and also the internet, the water, etc., taking those out, I think the benefit for us being at iCB is the recognition that comes out of it. I think marketing out our products would have a significant benefit considering that a lot of the high-profile businesses would know first. I mean, iCB would definitely tell them and they [the businesses] do follow up with what we do. I don't think we could get that much recognition on our own compared to if we were not at iCB. We do receive a lot of media publicities. I feel I have to give credits to iCB because without them we wouldn't have the recognition" (i5, Male, Founder)

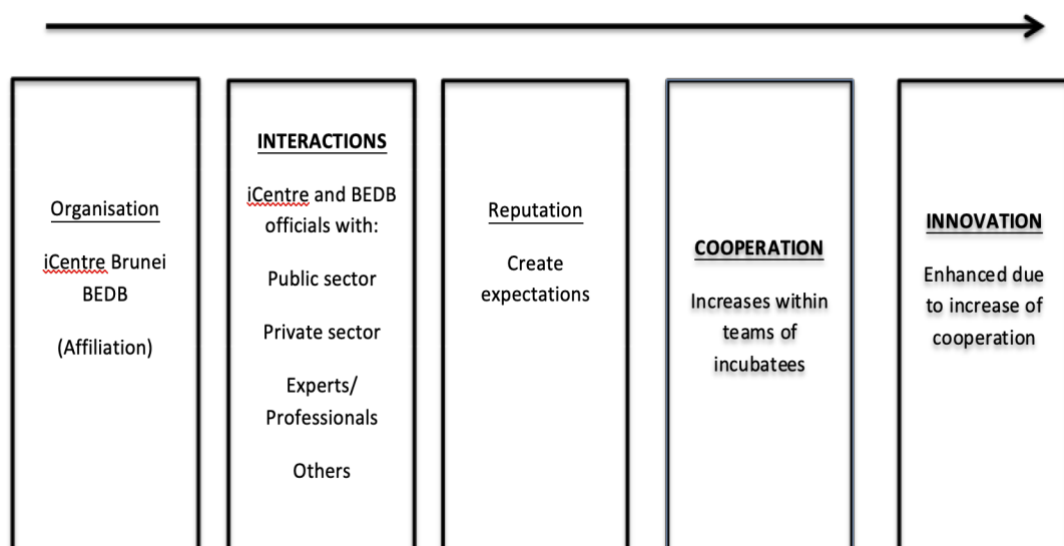
The close affiliation that iCB has with BEDB also gave iCB precedence over other incubators when it comes to invitations to international conferences and exhibitions. Being one of Brunei Government's most important institutions, BEDB certainly has many links with many government institutions and ministries. Therefore, it is not unusual for government institutions to receive invitations from local or international organisers to attend some conferences, forums or trade exhibitions. These opportunities are often extended to other relevant government institutions. Thus, iCB being affiliated with BEDB has the upper hand when it comes to such opportunities. Thus, a founder shares the benefits that her team had received since their enrolment at iCB:

"Actually there are few incubation centres here in Brunei but iCB is the best choice for us. We have received a lot of benefits since our enrolment, for example, invitations to attend international conferences or exhibitions. Usually the organisers will first contact either BEDB or iCB to look for incubatees to attend their events. So those kinds of conferences provide us with guidance on game development applications. The development of game application is quite hard. It's really different from animation or 3D animation because usually there will be speakers brought in. But for games it's really hard. So, we have to go outside. So, that's why we were sent to the Tokyo Game show back in 2013. It was fully sponsored by MOFAT [Ministry Of Foreign Affairs and Trade] and ASEAN-Japan Centre. We were actually suggested by BEDB because MOFAT were looking for someone to be sent there, so they [MOFAT] referred to BEDB. So that's how we were selected to go." (i7, Female, Founder)

From what have been discussed so far, it is evident that the iCB Brunei's reputation is significant for the teams of incubatees. Thus, in relation to the symbolic interactionism theory, it could be said that the creation of a positive image towards object or individuals is an outcome of frequent interactions between people who in turn create meanings to such encounter. In the case of the iCB, it is evident that the source and origin of its high reputation is due to its affiliation with BEDB. Being a

state-owned institution that plays a direct role in growing and diversifying Brunei Darussalam's economy, the BEDB certainly has a high reputation as it deals with both local and international businesses. Moreover, as a government institution that deals with strategizing and developing Brunei's economy, it is evident that the BEDB has a prominent reputation amongst many businesses. Thus, because the iCB is an initiative project of the Brunei Government under the authority of BEDB, it could be said that the 'face-to face, repeated, (and) meaningful interactions' that businesses have with BEDB certainly has a rub-off effect on the iCB. Such high reputation has a great influence on the teams of incubatees as it creates a chain effect on their group cooperation (and innovation)¹². To clarify, it could be said that the high reputation of the iCB creates high expectations amongst the business community on the incubatees at the iCB. This in turn influences the teams of incubatees as they have to maintain such expectations by producing more and better innovation. To attain a high level of innovation the incubatees will have to maintain a high level of cooperation within their respective teams. Therefore, by maintaining the high expectations of the business community, the teams of incubatees will get more opportunities to market and sell their apps as well as simultaneously forged good relationships with the business community for their future gain.

Figure 1: The process and outcome of interactions between affiliates



¹² As illustrated in Figure 1.

3.7 Fostering cooperation: The experience of the incubatees

In order to ensure the teams of incubatees will become successful entrepreneurs during and after their period of incubation, the iCB has provided them with two types of trainings; in-house and outside training programmes. The primary objective of all the training programmes is to equip the teams of incubatees with knowledge and experience of doing business (example, financing, management, networking, etc.) as well as to enhance their respective teams with relevant technical areas of expertise, such as graphic, designing, IT programming, etc. The in-house training programmes are those programmes such as workshops, forums, and mentorships that are conducted at the iCB or locally within Brunei. While the outside training programmes are those that will involve the incubatees to go abroad such as conferences, exposure trips, expo, exhibitions, and so on. For the in-house training programme, the incubatees' teams were given full access to consultations with professionals and experts, and regular consultations with the iCB officials. The interview excerpt below describes some of the in-house training programmes that iCB has conducted:

“Okay, as you know the iCB is an initiative by the BEDB and managed by KR Consulting, which is a subsidiary of the National University of Singapore (NUS). So aside from ‘Ignite’ where we identify the new ideas, the new people, the new start-ups, so through the NUS networks and links we bring mentors down here and they look at many areas from project management, financial, in patent issues, whatever areas that we feel the incubatees or new incubatees have gaps in, so we bring them to run workshops, talks and forums like ‘Innovate’ which is an entrepreneurship and technology forum that we try to organise at least 4 times a year. Basically, the purpose is to bring global insights to Brunei and to show not just incubatees, not only students, but also to other people and sort of see where we can, you know what ideas are outside this country. Hopefully it will ignite or spark ideas within the Brunei start-ups community. Aside from our links with the NUS and speakers or mentors or workshop facilitators we also work closely with stakeholders in Brunei who are keen to work with the iCB or sort of align so this is the likes of AITI (Authority for Info-communications Technology Industry). So,

AITI has many programmes as well and they always invite our incubatees to do conferences or even MOFAT (Ministry of Foreign Affairs and Trade) now have taken approach where they also invite our incubatees to showcase at these tradeshow and so does Telco companies like DST (DataStream Technology) they do come to our incubatees to request for apps development. Companies like BSDC (Brunei Solutions Development Centre) and Microsoft, all these companies we somehow align with them. So, there is a lot of support now for our incubatees since we have all these people with us.” (i12, Male, Official)

The data acquired in this study also shows that most teams of incubatees felt that the in-house training programme has benefited them in terms of gaining new knowledge and identifying their teams’ weaknesses. In addition, they also agreed that the iCB has been very helpful in providing relevant training programmes that has helped to improve their teams’ performance. These are clearly exemplified from the excerpts below:

“There are experienced members in the iCB management who has helped us identify key target markets which we wouldn't have recognised beforehand. We've always been sort of a 'find one problem and solved it' kind of team. But through the iCB we've been able to understand what it is about the tech world. Since we join the iCB, we sort of being more focus in that sense like we know what markets to approach, what will work and what will not work. Whereas before there was more of trial and error.” (i1, Male, Founder)

“The good thing being at iCB is that they are always concerned with our well-being and the work that we do. They want us to improve and often they guide us through consultations that we regularly had. They also asked us what area we feel lacking. Once we told them that we lack knowledge on financial management, and they bring in an expert to give us a financial management workshop. That really helps us.” (i9, Male, Incubatee)

When it comes to the outside training programme, many teams of incubatees also had positive reviews about it. The exposure trips together with other outside training programmes tend to be popular and received positive reviews from many teams of incubatees. For the incubatees' team, the abroad training has given them opportunities to not only meet other overseas app developers and be inspired but also allows for interactions and exchange of ideas as well as open up new opportunities for future collaboration in producing apps. This could be exemplified from the excerpts below:

"BEDB and the iCB has helped us a lot like giving us the SUB (Start-up Brunei) financial grant and sponsored our exposure trip to Singapore and Hong Kong. Now there are pushing us to go for the exposure trip to US, which currently we are still planning it. They also assist us by giving financial consultation and training workshop, they really do their best to help us. Some of the old incubatees however are not satisfied, I'm not sure why but to think of it we started with nothing and they (the iCB and BEDB) are willing to help us and give us the grants. I mean, without their help, our apps will stay the same just like what he had prior to joining iCB. With the trips to Singapore and Hong Kong we see the trends of the international market, and we also had the opportunity to meet and talk to other teams and discussed things like our problems, how to tackle them as well as possible future collaboration. I think with the exposure trips, I guess it is like an eye-opener to us... It really helps." (i2, Male, Founder)

"Well the iCB did send us to overseas forums, like last time they sent us to Singapore Innovest. That does help though, it did open our mind, like how they operate there, they work really fast, and they are very young talented groups of people over there. So, in a way that does help motivate and inspired me as well as my team, I mean when we got back to Brunei. The visit was basically before we launch our new app. So, basically that does help in motivate us like, we should work faster as well, and we should get to their levels." (i5, Male, Founder)

Another beneficial outcome from the exposure trips was the opportunity to do networking. Many of the incubatees were not aware on the importance of networking prior to them joining the iCB. Thus, through visits from the exposure trips, the iCB aims to train the incubatees to network with other entrepreneurs, companies or firms. It was hoped that through such networking, the incubatees could pick up and learn new things as well as be inspired by others' success. This was disclosed in an interview with an iCB official:

“When it comes to networking, so we do a couple of things, for example, we do once a year exposure trip to Silicon Valley. So, what happen is that we will select a couple of companies who are pretty much having minimum viable products ready to pitch, they have gone through our programmes, and they know their financials. Then they will join the trip and they will go pitch, they will go network with other start-ups in San Francisco, so they can be inspired, and they can learn how the work environment is so fast. And we hope when they come back they will be inspired and come up with new ideas and potentially establish networks. Aside from that there are a couple of conferences where the iCentre subsidize trips, the hotel and the airfare. The incubatees, they will be paying a minimal, a very small amount depending on the trip. All the incubatees' teams here will have the opportunity to go in one of these trips. By joining the conferences and to network, when they come back they will say to me, "You know what, it was a great talk with that start-up company, they actually give me ideas on how to enhance my product" and that's what we want and even after that they will still be communicating with each other through emails and so on.” (i17, Male, Official)

As mentioned earlier, many of the incubatees were not aware on the importance of networking prior to them joining the iCB Brunei. Analysis of the interview data shows that some incubatees were initially shy when it comes to encountering and talking with other people. However, they began to change as they went through the training programmes and went for the exposure trips. A team founder shares his first experience on networking in the excerpts below:

“In the early days they (the iCB officials) taught us how to network because I have no idea how it happened and how it was done. So, we went to a few networking events... we went to Singapore at a certain event and we also went to the US. The first time we go we were quite shy. We didn't know how to say anything to anyone. And then overtime when we go to all the different events, either in Brunei or abroad, we ended up realising a networking event is not about whether you are shy, or you are not shy. A networking event is not even you at the networking event, it's your company at the networking event. So, you sort of switch off any shyness and you say to yourself, "Well, I'm going here, and I need to speak to everybody". So, you sort of just transform to "Hi... Hi... Hi...". You want to meet as many people, you see as many people. It's just like building up the link to another company, to another person. So, it did help us without a doubt.” (i5, Male, Founder)

Another team co-founder also shares his experience about networking and how he and his team benefited from it, particularly in terms of marketing their apps. He also mentioned how the iCB has helped him to become broader in his view when doing business and not restricting only to the Brunei market. He describes about his networking experience in the excerpt below:

“Networking is the key. Say you want to raise money for investment, you want to use synergy, you want to break into the business, it is very very [*sic*] important. Not just business in general, networking is, as a whole, determine whether you become very very [*sic*] successful. In the early days with the iCB, I was stuck in my small office and I didn't think global. With the iCB they change the way I think from small Brunei kind of business to... well maybe there's a possibility I could see the world and I could change the world sort of thing. In term of networking those things, the first few mentors that I met, the first event that I went to, and taking me to the US for the first time definitely help. Like right now, we've gone so used to networking that it becomes almost second nature. Like I keep a bunch of cards in my pocket wherever I go, I like to wear my trainers, clothes, wherever I'm, I wore my cap, my

shirt and I have my phone. If I see somebody with an iPhone that I've never met before, I just sit down with them, and I say, "Hi. My name is H. Can I talk to you about an app?" You'll never know whom you'll meet. It's like what we did recently when we go to Indonesia, so when I get there, just through networking I was able to meet one person who belongs to what, ten people which belong to a hundred people and you could actually penetrate the market." (i4, Male, Co-Founder)

Another team founder also shares about her experience of networking that came out of an exposure trip. She explained that during the trip she managed to meet and interact with several renowned app developers where she gained valuable information and advices on how to proceed with her team's app development as well as on how to stay in the business. The following excerpt tells her experience:

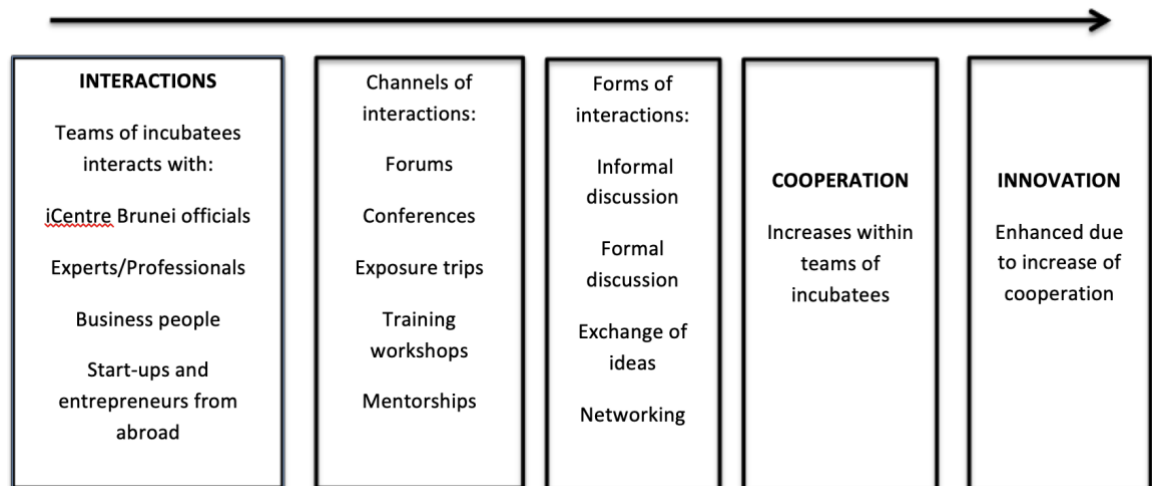
I went to the 2nd Tokyo Game show and met with the Angry Birds developer where we had a meeting. Recently, I met a friend from Laos. He was developing an app, a puzzle game. Along the way, he was like demotivated and the game was not really selling. And his company was losing revenue and everything and then they were picked up by the Angry Birds developers. So, I was asking the Angry Birds developers, if their company, the Revio company, if they provide funding. You know, because they were also start-ups and they kinda [sic] know the struggle and everything, right. It's really like a very good chat and meeting and they gave us a lot of tips about the game trends right now, about how doing puzzle games is much more selling, and they teach us how to solve problems with our business. We also got the opportunity to meet King. King is the company that developed the Candy Crush app. So, I met them as well. They are selling their games differently from Angry Birds since they are more towards an in-app purchase kind of game, where you could purchase bonus features in the game but the game app itself is free to download. So, they taught us about selling games like in-app purchase and then do allow people to advertise on your game as well. And if people don't like to see the advertisement, they could just buy the premier version, so that kind of thing. So, they also taught us about the premier version and at the same

time to be clever about what you are selling and how to make the game so addictive that people will at the end will buy your app. That's what they told us. (i7, Female, Founder)

As mentioned earlier in the beginning of this chapter, the symbolic interactionism theory is concerned about the 'face-to face, repeated (and) meaningful interactions' that one has with others and the meanings that emerge out of it. Through repeated modification and interpretation of the meanings, it shapes individuals' action towards another person or an object. Moreover, since the symbolic interactionism theory "focus on micro-level processes that emerge during face to face encounters to explain the operation of society", therefore the main concern of this study is not on the 'top down' effect or the impact of macro-level institutions on individuals (Carter and Fuller, 2015: 1). In other meaning, based on the theoretical framework of this study, the focus of discussion is on the process of interactions between the incubatees and the others, i.e. iCB officials, professionals, businesses, and foreign start-ups and entrepreneurs that took place throughout the training programmes provided by the iCB. From the discussion it is evident that the training programmes act as channels of interactions for the incubatees to interact with the other parties. These interactions took place in many forms (as illustrated in Figure 2) and both the channels and forms of interactions did take place repeatedly as mentioned by some of the incubatees in the interview excerpts. Take for example on the networking as illustrated in the previous few excerpts. Networking involves interactions between the incubatees and other individuals. The outcome of these networking was often positive where for example the incubatees received valuable advices from experience experts and entrepreneurs and in many instances the incubatees were also inspired and motivated by the encounters. Thus, the symbolical meanings are derived from those interactions in the subjective forms such as networking is seen as a platform to get motivated or to be inspired by others. Through the motivation or inspired feelings gained, the incubatees interpret and transform these energies into 'will power' or 'strong determination', which then is acted on their own

respective teams. The outcome of such action is the increase of cooperation that enhances innovation within the teams of incubatees.

Figure 2: The process and outcome of interactions



3.8 Summary

In this chapter, I have discussed how cooperation within teams of incubatees could be explained by using the theoretical framework of this study, i.e. the symbolic interactionism theory. Analysis of the interview data of this study shows that iCB reputation and the training programmes run by iCB contributes to the increase in cooperation within teams of incubates. As I have stated earlier in this chapter, cooperation within teams of incubatees is achieved in ways that are either oblivious or obvious to them. In other meaning, the incubatees might or might not be aware of the impact of the training programmes on their respective teams. Thus, based on the discussion and the data presented in this chapter, it is evident that cooperation within respective teams of incubatees is achieved by means of interactions that the incubatees had experienced during their incubation period.

In the first part of this chapter, I have discussed on the role of the iCB and the similarities and dissimilarities that the iCB has with other incubators. I based the discussion on available literatures on incubators and point out that the iCB is a state-run incubator that can be categorised as a 'University Business Incubator' with emphasis on 'technology-based firm creation'. The main reason for writing this part is to clarify as well as define the role and position of the iCB as an incubator. In other words, although the iCB is a state-owned enterprise but its operations are tailored and suited like many other incubators outside Brunei.

In the second part of this chapter, I have suggested that cooperation is the outcome of the centre's reputation, which has a rub-off effect on the teams of incubatees. By examining the fieldwork data to prove my point, I have argued that the reputation of the iCB is derived from its affiliation with BEDB which itself has a reputable reputation amongst local and international businesses. In addition, I also pointed out that the reputation is the outcome of interactions of officials of BEDB and iCB with businesses. I have also explained that due to the reputation of the iCB, there was a high expectation by businesses and other parties on the performance of the incubatees. This in turn motivates the teams of incubatees to perform better in their

work and to come up with better innovation, which can only be achieved with the increase in cooperation within the teams of incubatees.

In the third part, I have pointed out that interactions took place throughout the training programmes provided by the iCB. These training programmes act as channels for the incubatees to regularly interact with others. The interactions come in several forms, such as informal and formal discussion, as well as in the form of networking. I also postulate that through these interactions the incubatees were able to find subjective meanings such as 'motivation' and 'inspired' and transformed the feelings to energies of 'will power' and 'strong determination'. Using these energies, the incubatees reinforced cooperation within their respective teams and at the same time enhance their teams' innovation.

As I have discussed throughout the chapter, it is evident that cooperation within the teams of incubatees can be explained through the symbolic interactionism theory. As I have pointed out and argued throughout this chapter, cooperation within the teams of incubatees is reinforced through the meanings that they obtained through their interactions with other people. It can be said that this chapter is concerned with the source of cooperation. In chapter 6 and 7 of this study, I will discuss on the two findings that facilitate and maintain cooperation within the teams of incubatees, namely, informality, and trust.

Chapter 4: LITERATURE REVIEW

4.1 Introduction

I have briefly mentioned in Chapter 1 that the basis of this research is founded on the grounds of the Social Construction of Technology model/theory (SCOT). I have also mentioned that this research will investigate the importance of cooperation and innovation amongst the producers of apps (the iCB incubatees) as well as the significance of the informality and trust concepts, as reflected in the research questions of this research. Pertaining to that, it is therefore reasonable to present a detail discussion of four main concepts in this research in this literature review, namely, innovation, cooperation, informality, and trust. All these key concepts are significant for our understanding of what is maybe the most fundamental element of the social world this project investigates, that is, group dynamic.

For this part of the literature review, I will discuss the four key concepts that are significant in this research, that is, innovation, cooperation, informality, and trust. The first two concepts, that is, innovation and cooperation pertain to the working concepts of this study, while the other two concepts, that is, informality and trust relates to the findings of this study. Having said that, I will begin with a literature review and discussion on the concept of innovation and then followed by a literature review on cooperation. This will then be followed by the discussion on ‘cooperation and informality’ and ‘cooperation and trust’, both are significant to the two findings chapter of this research that is Chapter 6 & Chapter 7 respectively. The reason to integrate the discussion on informality and trust under the concept of cooperation is explained in part 4.3.2.

4.2 Innovation

As mentioned in the previous section, the SCOT theory exemplifies how through the user-producer relationship of ‘interpretative flexibility’ facilitates in bringing out innovation amongst the technologists. Innovation is therefore an inseparable part of technology (as in the widely used term “technological innovations”), and both the terms ‘innovation’ and ‘technology’ are often used synonym to each other (Rogers,

2003: 13). Similarly, it could be said that producers of technology or ‘technologists’ cannot be separated from the concept of innovation as the latter characterised their work role and their output. Therefore, in relation to this research, which is about producers or technologists of apps, thus it justifies on the need to comprehend and discuss about the concept of innovation.

In addition, the concept of innovation is both relevant and significant in this research due to two important reasons. Firstly, innovation is seen as the outcome of cooperation amongst the iCB incubatees. Cooperation as will be discussed in the findings’ chapters are closely connected to the concepts of informality and trust. By maintaining and securing cooperation within their respective teams, the expectation of the iCB incubatees is that they could increase their apps production as well as to come up with more brilliant innovative apps. Simply put, good cooperation means increase in innovation output. Secondly, innovation is often closely related to technology as well as the idea of being creative and entrepreneurial. As we will see in the upcoming discussion, it could be seen that innovation plays a significant part in shaping the roles of youth nowadays. As this study is about teams of incubatees that are fully comprised of youth who are committed in developing a form of technology, thus it could be said that the term innovation is synonymous with their individual and team characters. Moreover, the fieldwork data of this research also shows that all the teams gave strong emphasis on innovation amongst their respective team members.

In this part, I will begin by discussing the various meaning of innovation and its process. This will then be followed by a discussion on the social explanations of innovation that will be exemplified through several relevant works that recounts such explanations. I will argue that despite the various pointers on the social aspects of innovation, there are still gaps in the social research on innovation particularly relating to the theory of symbolic interactionism.

The term ‘innovation’ is widely used in economics, sociology, and social and technology studies. Equally, the term innovation is often associated with other terms such as business, entrepreneur, creativity and invention; the last two being closely

connected. Fagerberg (2005), suggested a clear distinction between 'invention' and 'innovation' in which he defines invention as "first occurrence of an idea for a new product" and innovation as "the first attempt to carry it out into practice" (Fagerberg, et al., 2005: 4). He argues that both invention and innovation are continuous and requires time for subsequent improvements (incremental innovations) for a certain product (Ibid: 5-7). Correspondingly, Rogers (2003) defines innovation as any idea that is perceived as new to individual or other potential adopters (2003: 12). He asserts that the "newness" in innovation is not limited to the new knowledge itself but also to the entire process involving the taking up of a specific innovation (ibid). Relating to this is what he termed 'reinvention' (improvements on a product or service), in which he substantiates his points using his research fieldwork on corn growing farmers in Iowa (Ibid: 17).

Within economics, Schumpeter developed an original approach on the role of innovation. He posited that economic development along with social changes were driven by the forces of innovation which has resulted in the creation of new type of production, new products as well as "new sources of supply, the exploitation of new markets, and new ways to organise business" (in Fagerberg, 2005: 6). For Schumpeter, all these new changes were possible due to "the entrepreneurial function" that facilitate in boosting and enhancing innovation and thus making innovation feasible. In other words, Schumpeter highly emphasised on the role of "innovative entrepreneur" which is vital in developing new types of innovation particularly those concerning the exploring of new markets and organising businesses which aid in the development of the economy (Lazonick in Fagerberg, et al., 2005: 33). On another note, Misztal (2000) conceptualises and delineates the term 'inventors' and 'entrepreneurs'. She postulates that inventors are those who produce ideas and entrepreneurs are those that come up with new type of innovation. Regardless, both cause "an effect in the market" and "set in motion a cycle of profits, investments and in turn business cycles" (Ibid: 150).

Despite the various viewpoints about the concept of innovation, it is widely agreed that innovation is an 'incremental process' in which continuous improvements are made on a product so as to maximise its output (Fagerberg, et al., 2005; Rogers,

2003; Schumpeter, 1954). The context of time together with the need and demand of users are therefore crucial factors relating to the process. Briefly put, innovations take place when there is a need to improve a product or service within a time frame. For example, in relation to the economic development of the USA in the last half-century, clearly the organisational innovations have shaped the structure of many of its industries (Chandler in Fagerberg, et al., 2005: 7). In general, the same thing could be applied to the global economic development where the intensive use of technological innovation such as the Internet within the last decade has, in many ways, improved global business connectivity and shaped the system and structure of the business world.

Today it could be seen that technological innovations have played a significant role in shaping the system and structure of our modern society. The two terms, technology and innovation often are used side by side (Rogers, 2003: 13) together with the word 'modern'. Modern technological innovations usually come in the form of digital technology, such as computers, the Internet, smart phones, computer tablets, and so on. Basically, these computer-based devices have become a focal point for production. As pointed out by Sandvig (2008), "if the owner installs... the free software package *Asterix*, the computer becomes a telephone exchange. If the user installs *Photoshop*, the computer becomes a photographic studio. *Audacity* or *Garage Band* produces an audio recording studio" (Ibid: 80). Moreover, with the rapid development in digital technology, communication cost and access to shared digital resources have been greatly reduced (Yoo, et al., 2009: 278). This allows for more collaboration and coordination to take place and open more opportunities for "innovation across networks of increasingly heterogeneous actors" (Ibid). Business organizations for example has benefitted from such networks with "manufacturing companies sourcing innovation from customers and suppliers" (Ibid). Equally, innovative individuals are also making use of the Internet to explore bigger markets for their products.

What then do these latest developments of digital innovations mean to the young generations? In other words, in what ways are the young generations, including the youth could be or are actively involved in the development of digital innovation? To

answer these questions, we need to look at the 'open opportunities' that embodies digital technology. It is widely acknowledged that digital technology has widened opportunities for individuals to be involved in innovation. According to Livingstone (2008), the digital technology has been increasingly dominated by young generations who become 'internet experts' and 'digital natives' (Ibid: 102). Simply put, the young generations are the active users of digital technology. In recent years, we have seen that the trend has gradually shifted where the young generations are no longer subdued to be users of the digital technology, but they have progressively become its technologist, to be more specific, producers of applications software or apps. Nowadays, it is quite evident that the profession of creating apps seems to belong to or 'owned' by the young generations. To quote from Livingstone (2008), it is "only in rare instances in history have children gained greater expertise than parents in skills highly valued by society" (Ibid: 102).

By having such computational skills, young generations can tap into the technological process of making apps, and thus become producers and innovators of the technology themselves. The simplest route to demonstrate this is by examples. Back in March 2013, a young British teenager, seventeen-year-old Nick D'Aloisio, sold his smart phone news app 'Summly' to Yahoo for a reported amount of US\$30 million (Reuters, March 26, 2013). In a smaller scale and in relation to the research context of this study, in Brunei back in December 2012, a group of young secondary school students won the APICTA awards for Secondary Student Project category for their tourism and education app "Brunei Treasure" (APICTA, 2012). Also, a group of students at Universiti Teknologi Brunei (a university in Brunei dedicated to science and technology) won a Merit Award in APICTA 2013 for their app, which was specially made for autism individuals (AITI, November 29, 2013). From these examples as well as in relation to what have been discussed so far, we can see that the development of apps as a digital technology has allowed and gave opportunities to young people and youth to become technological innovators. In many ways, these achievements reflect "the considerable social, economic, cultural, and political ambitions that society has for the information society and especially, for the so-called 'internet generation'" (Livingstone, 2008: 102).

According to Fagerberg (2005), mainstream social sciences have long ignored research in innovation due to the belief that it is impossible to seek for the answer to explain how innovation occurs (Ibid: 9). It was commonly assumed that innovation occurs out of “manna from heaven” (Ibid). However, since Schumpeter (1934), the belief that innovation is an outcome of random phenomena has been very much debunked. Innovation was explained through various means such as through the works of Lazonick (2003) that explains the social foundations of innovation; Mulkay (1972) on the social process of innovation that involves social control, social exchange as well as the significance of location; Pavitt (2005) examines innovation processes and its linkages with institution and organisational structures such as universities, firms and industries; Powell and Grodal (2005) look into the significance of networking on the growth of innovation; Narula and Zanfei (2005) explains innovation in a large scale through the globalised role of multinational enterprise; and last but not the least, Rogers (2003) that looks into the theory of diffusion and the spread of innovation.

In economics literature, innovation has long been identified with learning as a form of action that facilitates the development sense of innovation. However, the topic of learning is often treated in a limited sense and confined to discussion on ‘experience’ or ‘obtaining information from others’ (Nooteboom, 2000: 52). According to Lazonick (2005), the process of learning is a social activity vital to innovation because it is about “how to transform technologies and access markets in ways that generate higher quality, lower cost products” (in Fagerberg, et al., 2005: 30). Lazonick (2005) also agrees with O’Sullivan (2000) that the learning part causes the innovation process to become “uncertain, cumulative, and collective” because “what needs to be learned about transforming technologies and accessing markets can only become known through the process itself” (in Fagerberg, et al., 2005: 30). Simply put, one can only learn innovation by going through the innovation process itself. Nonetheless, the learning process needs to be collective in which it requires “collaboration of different people with different capabilities” (Ibid). Thus, Lazonick (2005) postulates for a transformation on the structure of the skill base of the firm in which the “the division of labour consists of different specialities and hierarchal

responsibilities” (in Fagerberg, et al., 2005: 34). Regardless of the social aspects that Lazonick (2003, 2005) advocates in his papers, his explanation on the learning process lacks the social constructivist view of interactionism to explain the basis of the learning process. He acknowledges the importance of the role of human agency on the “dynamic capabilities” of innovation but unlike Nooteboom (2000), Lazonick (2005) does not resort to explain how interactions are significant to the learning process of innovation.

In his discussion about innovation, like Lazonick, Nooteboom (2000) also acknowledges the need for learning to facilitate the process of innovation (Ibid: 52). In addition, he maintains that experience is an important learning aspect that facilitates the innovation process, but he emphasises more on the role of knowledge transfers in ensuring innovation. Nooteboom (2000) exemplifies two forms of knowledge relevant to innovation; firstly, is the “disembedded, explicit knowledge” that is available in document forms through “publications, blueprints, formulae, algorithms, and software”; and secondly, is knowledge that is “tacit, embedded in people, organisational structures, routines, or cultures” (Ibid: 54). Nooteboom employs the constructivist view of interactionism to explain knowledge in which he argues that, “knowledge arises from categories that people construct in interaction with their physical and social environment (Ibid: 114). While Nooteboom (2000) stressed the importance of knowledge and innovation in relation to interactionism, the explanations do not incorporate the role of informality in influencing the context of the situation as well as in shaping the interaction style of the people. As mentioned in previous chapters, the approach concerning the role of informality within a situational context as well as in shaping the interaction style of the people is at the centre of the discussion of this research.

As mentioned previously in relation to SCOT, users contribute significantly by ‘pressuring’ technologists to become more innovative. In order to cope with the pressure, technologists need to work together among themselves in order to fulfil their commitments and gained loyalty from users (Bergvall-Kåreborn and Howcroft, 2013: 974). Regarding this, organizations play significant role in bringing technologists together. In the context of this research, the focus is on the teams of

incubatees that are housed at an incubation centre under the administrative officials from the Brunei Government and a private company. Thus, it is justified to bring up a discussion on the relation between organisation and the process of innovation. Moreover, drawing from the data of this research, it is evident that the iCB plays a significant role in shaping the situational context that facilitate cooperation and innovation amongst the respective teams of incubatees. Thus, a literature review on the relationship between organisation and innovation is deemed important.

In her discussion on innovation, Amabile (2000) strongly emphasised that “Innovation is the successful implementation of creative ideas by an organization” (Ibid: 332). In this regard, it is also evident that organization plays an important role in choosing and selecting innovators (Volti, 2010: 5). The selection is based on some special criteria based on the organization needs. Thus, organizations are responsible for cultivating innovators and promoting innovative behaviour through opportunities given to new and potential individuals. By pooling the innovators together, both knowledge and work are shared, thus leading to efficiency in both innovation and production (Ibid). It is also evident that technologists tend to link themselves to organisations. In fact, as observed by Volti (2010) that such linkage is crucial for the success within the field of the technology itself (and to the technologists themselves) in which he suggested:

“For a technology to be developed and used, the energies and skills of many individuals have to be combined and coordinated through some system of organization. Organization may be likened to the software that controls and guides a computer” (Volti, 2010: 5).

Moreover, according to Volti (2010) one person may become an expert in his or her field of work, but it certainly will not help him or her in matters relating to “degree of efficiency” (Ibid). In addition, innovation itself is full of complexity and uncertainty. Pavitt (2005) for example, described the nature of innovation as ‘highly contingent’ and its process as ‘confusing mosaic of knowledge’ (Ibid: 86 - 88). Pavitt’s work entitled the ‘Innovation Process’ focuses on innovation process of large-scale

organisations in advanced countries which is in contrast with this research which is about novice technologists in a small organisation. Despite being optimistic on innovation in large organisation due to the improvements in the scientific knowledge, Pavitt (2005) argues that innovation process is still a murky business that is difficult to manage (Ibid: 108). In addition, he predicts that innovation in large organisation is going to be difficult to manage and will hinder efficiency in large innovating firms due to the “increasing complexities in products, systems and the underlying knowledge base... greater use of ICTs and the outsourcing in component design and production” (Ibid). Thus, in contrast to the work of Pavitt, this research will try to comprehend the innovation process in a small organisation (in the form of a technologically related incubation centre), how is innovation process taking place, and how are the social and situational settings of informality and trust affecting innovation.

So far we have seen the significance of innovation to cooperation and technological development as well as the social aspect and the organisational side of innovation. Digital innovation is increasingly becoming an important part of youth culture and as pointed out that this research is about exploring and understanding cooperation amongst iCB incubatees who themselves comprises of youth. As far as the findings of this study are concerned, the incubatees have prioritised their own respective teams’ cooperation in order to achieve innovation. Cooperation is therefore a vital component to the success and survival of all the incubatees’ teams. In the next part, I will explain about cooperation and discuss its significance in relation to this research.

4.3 Cooperation, Informality, and Trust

In the SCOT discussion, I have exemplified the importance of users-producers relationship and how such relations lead to cooperation between the two and resulted in better innovation. Cooperation therefore needs to exist not only at the users-producers level, but also at the production level. In other words, cooperation is imperative amongst the producers themselves. Related to this study, the iCB incubatees stress the importance of cooperation within their respective team

because only by having good cooperation that they will be able to face the challenges and hardships to become successful app developers. It is also evident from the findings of this study and in relation to the research questions that cooperation is closely associated to the concepts of informality and trust. Therefore, based on this reasoning, it is ideal to have a discussion on cooperation that is linked closely with the two concepts of informality and trust. Moreover, since the concept of cooperation itself is a vast topic relating to many aspects relating to management and organizational studies, and as it is a conventional practice in sociological discourse to relate the topic on cooperation with both the concepts of informality and trust (and vice versa), thus, it will be more appropriate to narrow down as well as relate the three concepts together.

4.3.1 About Cooperation

Before I proceed with reviewing the literature on ‘cooperation and informality’ and ‘cooperation and trust’, perhaps it will be worthwhile to discuss the various definitions and perspectives on cooperation to examine its significance in contemporary societies.

Cooperation can be defined as “an exchange in which the participants benefit from the encounter” (Sennett, 2012: 5). In a broader sense, Gambetta (1988) gives a more concise definition of cooperation in which it is about “individuals, firms, and governments, agreeing on any set of rules – a ‘contract’ – which is then to be observed in the course of their interaction (Ibid: 213-214). Gambetta further asserts that agreement occurs not exclusively due to previous communication, but it can implicitly take place within the ‘course of interaction’. Correspondingly, cooperation does not necessarily follow rules that are printed on paper, but it can also exist due to habit, previous successful experiences, and experimental test (Ibid).

Sennet (2012) asserts that cooperation is much needed in contemporary societies due to the deskilling process caused by new capitalism which makes people lose their competence to cooperate with others (Ibid: 5). He argues that cooperation is in decline due to the changes experience by modern labour added with the increasing of inequality and cultural homogenisation (Ibid: 8). Thus, he points out that today’s

complicated world has put more stress on people to participate in a new challenging type of cooperation which requires them to put aside their differences and engage themselves in “dialogic skills” (Ibid: 6). By engaging in dialogue, Sennet believes that both sides could end up with a “win-win exchange” rather than one side become the losing side (Ibid).

While Sennet (2012) stresses on the importance of cooperation to achieve a fair situation, Gambetta believes that competition could facilitate the act of cooperation. According to Gambetta (1988), as much as we probably are reluctant, to have competition does bring benefit to cooperation (Ibid 214). He argues that competition is beneficial as it helps in “enriching the human lot” (Ibid). In other words, Gambetta asserts that to have “optimal mixture of cooperation and competition” is “notoriously beneficial in improving performance, fostering technological innovation, bettering services, allocating resources, ...pursuing excellence, (and) preventing abuse of power” (Ibid). In contradictory, Lawson (2001) argues that cooperation is a better alternative than competition and is imperative as an “essential condition for generalised human flourishing” (Lawson in Shionoya & Yagi, 2001: 67). He further argues that there is always assumption that both cooperation and competition are ‘mutually exclusive’ when in fact “in truth competition regularly goes hand in hand with cooperation” (Ibid: 69). However, he also advertently emphasised that “cooperation prevails at all levels... [and] is essential for anything to be achieved” (Ibid).

Misztal (2000) however suggests that cooperation is necessary as a protection against competition (Ibid: 108). She asserts that cooperation goes together with trust whereby “cooperative relationships based on trust are increasingly seen as a precondition for competitive success” (Ibid: 107). Moreover, Misztal (2000) asserts that the general expectation on modern society is that it is “rational, reflexive, formalized, relying on the division between politics and the market as well as the separation between public and private interests” (Ibid: 108). However, “modern attempts” has failed to achieve this particularly in spreading equality as well as “distributing needs and opportunities for autonomy equally” and as a result it causes intertwining problems, insecurity and breaking up of society (ibid). Thus, cooperation

according to Myszal is necessary as a solution to the problem of “today’s cooperation problems” (Ibid). What is interesting here is that while Myszal suggests the ‘imperfectness’ of the modern society that calls for the need for cooperation, Sennett (2012) on the other hand argues that it is the effectiveness of modern industrial production that kills cooperation through the practise of “de-skilling” people (Ibid: 8).

Elsewhere, Hayek (1988) postulates that cooperation requires for “a large measure of agreement on ends as well as on methods employed in their pursuit” (Ibid: 19). This, he argues, “makes sense in a small group whose members share particular habits, knowledge and beliefs about possibilities” (Ibid). Thus, linking such argument to the data of this research, the iCB incubatees that comprises of several small teams have strong concern on the importance of cooperation rather than competition as a way to ensure the survival of their respective teams. Hence, the choice taken in this study to examine cooperation within the teams of incubatees in order to explain the conditions that foster their innovation is in fact justified.

It is evident that today’s app developers face stiff competition in publicising their apps, particularly in trying to get into the ‘top 100 list’ within the apps markets (Bergvall-Kåreborn and Howcroft, 2013: 974). Since the app markets have been saturated with millions of apps it is rational that app developers need to be more competitive as well as be more innovative in the apps that they produced. However, to overcome such challenges, the iCB incubatees’ teams have opted not to practice competitiveness. Instead, they have decided to forge strong relationships amongst themselves particularly within their respective teams. This in turn has resulted in positive impact on their innovation and their overall apps productivity. Thus, the concept of cooperation is an essential as well as an imperative working framework within this research as it elucidates the connection between the incubatees and their innovative conduct.

4.3.2 Cooperation and Informality

Before reviewing the literature on cooperation and informality, it would be useful to discuss about the meaning of informality and the concept of informality in general.

The definition of informality has never been straightforward which is not much surprising due to the “ambiguous nature of concepts” in social theory (Misztal, 2000: 17). In fact, according to Misztal, the concept of informality is difficult to define due to various ways of utilising the concept depending on “variety of situations and actions” (Ibid). While Misztal (2015) asserts that the source of the difficulties is due to the usage of informality to describe descriptions from private to public context (Ibid: 106), Mica, Winczorek, and Wiśniewski (2015) tends to highlight the role played by informality side by side with formality, particularly relating to institutions and organisations that is dominating the social life of contemporary society that has caused the complexity and multifaceted meaning of informality (Ibid: 9). Nonetheless, despite informality’s “complex, unclear and ambiguous” traits, Misztal (2015) gives the definition of informality as “a form of interaction among partners engaging in dialogue, the rules of which are not pre-designed, and enjoying relative freedom in the interpretation of their roles’ requirements” (Ibid: 106). On the other hand, Sennet (2012) simply defines cooperation as “an exchange in which the participants benefit from the encounter” (Ibid: 5). He further asserts that cooperation is simply needed because people need to “cooperate to accomplish what they can’t do alone”. Thus, it involves “exchanges”, “competition”, “mutual respect” and it can be “informal as well as formal” (Ibid).

According to Wouters (2007), the trend of informalization is not a unilinear process. In fact, based on a study that involved four countries, that is Germany, United States, Britain and the Netherlands, the period of informalization was dominant in the 1920s but then experience a downward trend. It accelerated back again in the 1960s and 1970s with a broader social class being involved as compared to the previous period (Ibid: 167). Wouters also put forward the characteristic of the process of informalization that includes, the freedom to display and express many forms of expression where “people have become more frank and more at ease in expressing

and discussing their feelings” (Ibid: 3). In addition, he also asserts that informalization is also about being “reflexive, showing presence of mind, considerateness, role-taking, and the ability to tolerate and control conflicts, to compromise” (Ibid: 4).

Moving to the review on cooperation and informality, it is evident that existing literature on cooperation mostly agrees that cooperation in modern society and organisations is attained both by formal and informal conditions (Misztal, 2000; Cook, et al., 2005; Sennett, 2012). Modern society, according to Misztal (2000) needs to find balance between formality and informality to find solution to the problem of cooperation (Ibid: 108). She further argues that organisational studies have clearly shown that official and formal regulations are often neglected and disfavoured which therefore makes the notion that modern society will act based on “rational formalism” no longer valid (Ibid). Mische (2002) neatly summarises Misztal’s argument, which is firmly grounded on the basis of finding a seamless balance between formality and informality:

“In order to cope with the uncertainty, contingency, and ambivalence of modern society, we need to combine abstract, universalistic, impersonal organizational principles with more spontaneous, flexible, personalized, and context dependent styles of interaction... , the latter are important for communication, trust, and emotional commitment” (Mische, 2002: 608).

The styles of interaction are imperative in order to understand how informality functions to facilitate cooperation. Misztal (2000) came up with a tripartite set of “interaction styles” that she labels civility, sociability, and intimacy. The three styles of interactions are further integrated respectively into three types of social realms, namely; “encounters,” “exchange”, and pure relationships” (Ibid: 68-71). The realm of encounters deals with civility which Misztal posited as “a style of interactional practice rested in the universal norm of respect for others... a significant factor shaping the quality of life” (Ibid: 78). The realm of exchange deals with sociability which is about “a style of exchange with reciprocity weaving through it, a style that

is capable of creating a feeling of belonging and providing people with social acceptance and position” (Ibid: 94). And the realm of pure relationships deals with intimacy which Misztal (2000) asserts as “relationships characterised by close association, privileged knowledge, deep knowing and understanding, sharing, commitment and some kind of love... all these relations are significant sources of psychological satisfaction, identity and personal development” (Ibid: 97). In all her discussion on the three styles of interactions, Misztal (2000) makes use of the symbolic interactionism perspectives of, to name a few, those of Goffman, Mead, and Giddens to develop her arguments and substantiate her discussion. As this research’s theoretical framework is grounded on the symbolic interactionism theory, thus Misztal’s work is chosen as one of the primary sources of reference for this research. In this regard, her three styles of interaction approach are used as a tool for the analysis of the data of this research as well as to develop the arguments and perspectives relating to it.

As previously mentioned, cooperation in modern society particularly in modern organizations occur in both formal and informal conditions. In the formal setting, for example, the government plays a major role on the formal side of cooperation. Cook, et al. (2005) exemplify that government could act as a third party in ‘providing security’ for cooperation to take place (Ibid: 151). Simultaneously, he also postulates that such role also ensures “transparency, integrity, and respectful behaviour” to occur, thus allowing for “cooperation and compliance from citizens and subjects” (Ibid). Equally, a stable state (and government) also “enhances the sense of security, promotes cooperation, and evokes a willingness to take risks even among strangers or relative strangers” (Ibid: 155). On other hand, the informal side also has an imperative role in cooperation. In fact, existing social science literature on cooperation strongly suggests that the informal side is more effective in fostering a successful cooperation (Gambetta, 1988; Lane and Bachmann, 1998; Misztal, 2000; Cook, et al. 2005; Sennett 2012). For example, the study by Evers and Bauer (2011) on epistemic landscapes in Vietnam illustrates how informal cooperation in the form of “collaborations, meetings, and face-to face interactions” takes place in “coffee

shops and recreational after –work establishments” which blends together personal relationships and business (Ibid: 254).

Sennet (2012) suggests that cooperation and informality could work side by side when strong informal bonds are forged at work. He exemplifies his arguments using a “social triangle” with the respective three sides representing “earned authority, mutual respect and cooperation” (Ibid: 148). The social triangle, according to Sennet creates a bond of civility between the workers and their superior and although such matter “does not transform work into Eden, but does make work experience something more than soulless, it countervails... against formal isolation” (ibid: 149). Informality in the workplace also creates happiness, less stress and bitterness at the workplace (Ibid). More importantly, weak informal social ties erode both loyalty and trust, wither people’s communication as well as impedes the sharing of ideas amongst people (Ibid: 149-150). To strengthen cooperation, Sennet argues that people need to be involved in what he labels as “dialogic skills” which corresponds to activities of “listening well, behaving tactfully, finding points of agreement and managing disagreement, or avoiding frustration in a difficult discussion” (Ibid: 6).

As discussed, both formal and informal conditions are crucial for cooperation. However, formal instruments like contracts are not just costly (Cook et al., 2005: 52) but also “represents weaker forms of pre-commitment” for cooperation (Gambetta, 1988: 221). In addition, as much as we like sitting and sipping coffee with our work colleagues at coffee shops, this might not be a robust solution to solve problems of fostering cooperation. Cooperation and informality alone cannot help the iCB incubatees to come up with better innovation of apps, which is known to be a competitive business. Therefore, in order to understand the mechanisms that facilitate cooperation amongst the iCB incubatees, thus, there is a need to delve deeper into other ‘mechanism’ that supported cooperation – that is, trust.

4.3.3 Trust

In this and next section, I will discuss about an important mechanism that supports cooperation that is ‘trust’. As highlighted in the second research question of this study, trust along with cooperation are important elements that foster innovation

amongst the iCB incubatees. Thus, to have a more thorough understanding on how innovation was attained, both the elements of trust and cooperation relating to the incubatees needs to be examined. Before going on a lengthy discussion about cooperation and trust, it is worthwhile to review the literature on trust that is relevant with this research.

Most experts about trust do not come up with a definite definition of trust due to its “imprecise and confusing notion” (Misztal, 1996: 9) and because of its ambiguous nature (Barber, 1984). Moreover, as Dunn and Schweitzer (2005) point out, the difficulties to pin down a precise definition of trust is caused by the different variant definitions of trust that have been developed across several disciplines, including those of economics, sociology and psychology (Ibid: 736). In her work entitled *Trust in Modern Societies*, Misztal (1996) presents a thorough and detailed discussion on the definition of trust. She conceptualises trust as a form of social mechanism that is accessible through the understanding of “people’s belief and motivations” (Ibid: 9). Thus, she argues that most explanations on trust appear to discuss trust in relation to various contexts such as “people’s beliefs”, “motivations”, “social relations”, “social order”, “institutions” and others (Ibid: 9-10). Moreover, according to Misztal (1996), sociologists tend to define trust according to their own theoretical stands and the context of their theories (ibid: 15) which add more difficulties and complication to generate a general or precise meaning of trust. Perhaps, a definition that can be adapted as a universal definition of trust is the one by Dunn (1984):

“Trustworthiness, the capacity to commit oneself to fulfilling the legitimate expectations of others, is both the constitutive virtue of, and the key causal precondition for the existence of, any society” (Ibid: 287).

Another general definition of trust is derived from the latest collaboration between Oxford University Press (OUP) and Dictionary.com (2019) which defines trust as “Firm belief in the reliability, truth, or ability of someone or something”¹³. This definition shares similar feature of the common characteristics of trust proposed by

¹³ Available at: (<https://www.lexico.com/en/definition/trust>).

Misztal (1996) which is derived from “the contingency of social reality” (Ibid: 18). She further argues that trust of this sort will “require a time lapse between one’s expectations and the other’s action” (Ibid). To put it straightforwardly, trust requires time to occur and it does not happen instantly. As Misztal (1996) explicitly states that “we are learning to trust in successive stages, tentatively and conditionally” (Ibid: 84).

For the purpose of this research, the definition of trust will be tied to the concept of cooperation. Thus, in this regard, Misztal (1996) defines trust-cooperation relationship as “the willingness of other agents to fulfil their contractual obligation that is crucial for cooperation” (Ibid: 18). In addition, Misztal also argues that an understanding of trust is essential and imperative due to “today’s contingent, uncertain and global conditions” which affected how people cooperate and cohere particularly on their quality of “social relationships, social cooperation, solidarity and tolerance” (Ibid: 9). Thus, the definition of trust with cooperation needs to be seen in relations to its necessity to maintain social order as well as its “multitude of functions” that it can perform in order to ensure the “smooth running of cooperative relations” (Ibid: 10).

Existing literature on trust generally tends to agree that the concept of trust occurs within conditions of uncertainty within individuals, groups, or organizations where the expectation is that the other’s action will result in positive outcome rather than a negative one (Child, 1998; Gambetta, 1998; Humphrey, 1998; Kramer and Tyler, 1996; McAllister, 1995; Michalos, 1990; Sabel, 1993). In other words, trust is about having positive expectations on another’s intentions and actions regardless of its potential liabilities (Mayer et al., 1995, McEvily et al., 2003, Rousseau et al., 1998). Due to the ambiguous nature of trust and because trust usually happens in the absence of social measures (as a control mechanism), trust is therefore considered as a risky endeavour (Child: 244). Nonetheless, most studies of trust tend to converge on the conclusion that trust is central in societal functioning and constitute an important resource within social systems (Cook, 2001; Fukuyama, 1995; Hardin, 2002; Putnam, 2000; Sztompka, 1999). Studies also show that trust is crucial for effective management, effective government, and effective social systems

(Bazerman, 1994; Donaldson, 2001). In addition, McEvily et al. (2003) also asserts that trust play significant role in enabling “important organizational phenomena” such as those of “communication, conflict management, negotiation processes, satisfaction, and performance (individual and unit)” (McEvily et al., 2003: 91). Through all these distinctions, however, the unifying tendency has been to define trust as a psychic quantity—an attitude, disposition, or belief.

4.3.4 Trust and cooperation

Relating the two concepts of trust and cooperation, experts on trust strongly assert that trust is a lubricant of cooperation (Dasgupta, 1988; Gambetta, 1988; Misztal, 1996). Equally, Good (1988) acknowledges cooperation as “the central manifestation” of trust (Ibid: 33). Alternatively, Gambetta (1998) asserts that “trust would be better understood as a result rather than a precondition of cooperation” (Ibid: 225). Gambetta (1998) also contends that trust can also emerge due to other conditions like ‘familiarity and friendship’ or ‘moral and religious values’ in which respect, honesty and mutual love play their part in enforcing trust (Ibid: 230). Therefore, trust is not exclusive to cooperation alone as it is also a by-product of other social conditions. Thus, the question that arises here is, since there are other means or alternatives to attain cooperation, why then is trust needed for cooperation? According to Gambetta (1998), “trust is not just a solution: it is possibly the standard solution” of the problems of complexity in cooperation (Ibid: 230). Furthermore, the fact that trust can be considered as a scarce¹⁴ resources means that it has unique characteristics which is conducive to cooperation i.e. – “most realistic, economical, and viable” (Ibid). In other words, trust is “economizing” or seen as a cheap solution for cooperation (Ibid: 216).

At this point, it is evident that the general agreement is that trust occurs with cooperation. However, cooperation can still happen without trust. According to Gambetta (1988), cooperation can be generated by other means other than trust, for example through coercion (Ibid: 224). Cook, et al. (2005) in their work entitled

¹⁴ According to Gambetta, this is not implying that trust depleted through use (Gambetta 1988: 225).

Cooperation without Trust? explicitly state that trust within cooperation “is no longer the central pillar of social order” (Ibid: 1). Despite maintaining that trust is still significant at interpersonal level, they however argue that trust “cannot carry the weight of making complex societies function productively and effectively” due to the “long-term change from small communities to mass urban complexes” (Ibid: 1). Additionally, they assert that even though the fact that our lives nowadays has seen an increase in cooperative relationships, but it was the “massive institutionalization of most of life makes modern society possible when mere trust could not have done so” (Cook, et al., 2005: 196-197). Because of such change, “we do not have trust relations with most of the people we deal with”, therefore we cannot rely on trust as “a route to cooperation” (Ibid). Alternatively, cook and his colleagues also believe that there are various other ways that can replace trust such as by utilising social capital, communal norms of cooperativeness and responsibility, fictive kinship and others. Molm (2006) also supported this view and argues that although in today’s modern society we tend to develop trust with many people that we deal or have long-term relationships with, trust is not necessarily needed for us to cooperate with them (Ibid: 307). Misztal (1996) who is a firm believer on the functionality of trust as a social mechanism that facilitate effective cooperation however reasons against such view. She emphasises that due to cooperation being a by-product of trust, any lack of cooperation cannot be blamed on trust since the lacking could be caused by other factors but not because of “an absence of trust” (Ibid: 17). She also posited that because modern societies are full of ambiguities and uncertainties on other’s motivation (Ibid: 20-21), thus “trust becomes a more urgent and central concern in today’s contingent, uncertain and global conditions” (Ibid: 9). Moreover, Misztal believes that in order to produce a reliable “social relationships, social cooperation, solidarity and tolerance” that will help societies to both cooperate and cohere, then “trust and the conditions facilitating trustworthy relationships should be at the centre of public attention” (Ibid).

Alternatively, Yang (2008) argues that the central thesis of Cook and his colleagues (2005) is “somewhat tautological” because of their restrictive definition of trust as well as their lack of understanding on the fact that “trust can develop only in a limited

number of situations” (Ibid: 1165). Furthermore, Yang (2008) strongly rejects Cook et al. (2005) formulations that institution could work without interpersonal trust when it is evident that such idea is “contrary to what most public managers experience and believe” and it is well-known that “interpersonal trust is necessary for institutions to work” (Ibid: 1165-1166). Yang also argues that “given the presence of uncertainty, human agency, and bounded rationality”, the presence of trust in institutional cooperation is even more inseparable because “the institution-building process is also a trust-building process” (Ibid: 1165).

Another literature that is significant for the discussion on trust and cooperation is the work of Barbara Misztal entitled *Trust in Modern Societies* (1995). In reviewing her work, Misztal views trust as an element that is “essential for stable relationships, vital for the maintenance of cooperation, fundamental for any exchange and necessary for even the most routine of everyday interactions” (Ibid: 12). She also emphasises that “in a post-industrial, global, hypercompetitive, knowledge-based economy, relationships of trust and cooperation are essential” (Ibid: 107). In other words, Misztal’s core argument on trust and cooperation revolves around the idea that “trust facilitates stability, cooperation and cohesion” in modern societies (Ibid: 64). Apart from the detail discussion on the literature about trust using key sociological theorists, Misztal also covers the discussion about the cohesive aspect that secures social order, that is, trust relation with family, friendship and civil society. In particular, the discussion on trust and friends is relevant as reflected in the findings in Chapter 6 of this research. In furthering his argument, Misztal asserts that friendship is relevant because “by trusting other’s good will” it will help to “resolves uncertainty about others’ intentions” as well as aid in securing “mutual commitment, loyalty and trust” (Ibid: 189-191). Moreover, friends also tend to provide moral support and comfort in time of crisis as well as “an important source of solidarity and self-esteem” (Ibid: 190-191). Friendship, as Misztal reiterates throughout her discussion, will continue to become an important aspect in modern social life due to the dynamics of social communication and social contact (Ibid: 191). Despite her arguments that link trust and passion, Misztal however fails to see how this linkage affects cooperation. She explicitly explains how trust existed in the form

of passion but neglected how these elements could contribute in solidifying cooperation. This research attempts to fill in the gap left by Misztal and exemplified how trust as passion particularly relating to friends can be used to establish and strengthen cooperation.

Another work worth mentioning and reviewing about trust and cooperation is the one by Richard Sennett entitled *Together: The Rituals, Pleasure and Politics of Cooperation* (2012). Sennett gives an interesting discussion about the subject of trust using Georg Simmel's and William James's conception of mutual trust where they both believe that trust requires "a leap of faith" (Ibid: 153). According to Sennett, we tend not knowing what other people's intention is and if we do then, "trust doesn't arise as an issue (Ibid). Thus, Sennett argues that people tend to put trust on others because of the faith they have on the other person "despite not knowing whether that faith can be justified" (Ibid). In explaining the relations between trust and cooperation, Sennett uses some insightful life experiences in his discussion. When thoroughly examined, the examples that he uses demonstrate the significance of interactions to develop a trustful cooperation amongst people. Thus, Sennett gives an account of alcoholic workers in a factory assembly line and how they were shielded by other fellow workers, so that they would not face any consequences for being sluggish (and drunk) at work (Ibid: 153-154). An important part of the account is Sennett's evaluation of how trust develops and strengthens amongst the workers which he asserts was due to their Catholic faith and the "year after year, decade after decade" of listening to "Christian exhortation not to turn away from people who are frail, that frailty is also in them" (Ibid: 154). Using symbolic interactionist approach, one can postulate in such case that trust was built up through prolonged interactions that the Catholic workers had with their church and as a result it has indefinitely enhanced mutual trust and stronger bonds within the Catholic workers. Similarly, like many works on trust (Gambetta, 1998; Misztal, 1995; Sennett, 2012), this research itself utilises the symbolic interactionism approach to analyse and argue its findings.

As mentioned in Chapter 1, the setting of this research is based within an institution with a role of an incubation centre for the incubatees involved in technological

innovation. Pertaining to this, it is deemed worthwhile to review literature on trust within organizations and its link with cooperation.

To begin, trust within and between organizations or firms could be considered as a big risk, particularly if there is no social mechanism that could impose it (Lane and Bachmann, 1998:368). The issue of trust specifically between organizations or business firm is seen as a 'problematic' but a necessary issue (Lane, 1998: 2). Lane (1998) argues that trust is becoming an important issue within organizations as they need to cope with both the rapid changes in global business environment and new challenges. In other meaning, firms are facing difficult challenges particularly on matters concerning the quality and variability of goods, product innovation, price competition, and the increase cost on technology (Lane, 1998: 1; Sako, 1992). To handle all these challenges, business firms are forced to "implement organizational innovations within firms and in their relations with other firms" (Ibid). In other words, cooperation both within and between firms are vital to ensure success comes to a realisation (Child, 1998: 240; Smith, Carroll, Ashford, 1995). Thus, to cope with this new implementation of relations and cooperation, as well as to cope with the ambiguity within the business environment, has made firms positioned 'trust' as an asset within their respective companies' mission and strategy (Lane, 1998: 1).

It is evident that cooperation between firms or organizations that is based on trust has led to positive outcome both in their performances and in innovation (Kern, 1998: 203). Numerous studies also show that small companies are more successful with the presence of trust within their partnership and strategic alliances with other companies (Brusco, 1986; Powell, 1996; Smitka, 1991). Moreover, trust is also seen as having the potential to give business companies with competitive advantage over others (Barney and Hansen, 1994; Jarillo, 1998). The impact of trust on organizational performances can be seen in a study done by Sako (1998) on the impact of trusts on inter-organizational supplier performance in automotive industry in the United States, Europe, and Japan. In the study, Sako (1998) conceptualises inter-organizational trust into three types of trust namely 'contractual trust', 'competence trust' and 'good will trust' (Ibid: 89). Her findings show that all the three type of trusts have positive impact on various performances on supplier companies which have a

high-level trust compare to those companies with a low-level trust. The findings also show that the good-will trust has the strongest impact on performance compare to the other two type of trusts (Ibid: 108). The reason for this, according to Sako is accredited to the fact that goodwill trust is “found not by resort to law but through learning-by-interacting to fill in the gap left by incomplete contracts” (Ibid: 109). In other words, the good will trust is based on “rapid innovation and learning” (Sabel, 1994), which are oriented towards joint problem solving for the mutual benefit of both sides (Sako, 1998: 93). The important lesson that can be derived from the study is that trust in any forms gives positive impact on the performances of an organization, thus making it “a precondition for superior performance and competitive success in the new business environment” (Lane, 1998: 1).

So far, the point that has been made is that trust has a positive impact within and between business firms, enterprises, and organizations. Trust therefore is seen as an asset between these work structures in order to face challenges and competition within the new business environment. However, to have much trust in trust could also lead to a grave mistake. Trust therefore cannot be taken for granted as “the act of trusting renders the actor vulnerable to deception or worse” (Barbalet, 2009; 368). To have trust on someone also reflects that one is to rely on another. In other words, trust is characterised as dependency by which the ‘trustor’ accepts dependence from the trustee (Luhmann, 1979: 15; Rousseau et al., 1998: 395; Barbalet, 2009: 368). In a study by Kern (1998) on the case of the German industry, he discovered that having too much trust could have an adverse effect on incremental innovations. In the study, Kern illustrates how the structure of the German firms is embedded on a stable network in which firms co-operate with others to create innovations (Ibid: 211). Such cooperation obviously generates good trust between these firms and therefore provides support to each other. However, Kern argues that the due to their close structure, the German firms have overlooked the importance of global competition of basic innovations and thus neglected the importance of knowledge integration in developing such innovation (Ibid: 210-211). In other meaning, they fail to integrate knowledge that comes from different places or from outsiders’ rival firms that has such knowledge (Von Hippel, 1988: 76). Thus, as a result this impedes

innovation within the German industry (Kern, 1998: 211). In addition, Kern also argues that 'mistrust-inducing interventions' needs to be injected into these inter-firm networks to promote the growth of innovation (Ibid). Nonetheless, despite of the said solution, Kern acknowledge that it will be difficult to design and implement ways to deal with the delicate situation (Ibid).

Thus, as can be seen trust could contribute to beneficial as well as detrimental development within and between organizations. Despite the ambivalent nature of trust, it is evident, as mentioned earlier, that the presence of trust is crucial as a solution to the increasing complexity and uncertainty of the business environment. In other meaning, there need to be a balance in putting trust in trust. Indeed, as Gambetta argues that "Asking too little of trust is just as ill-advised as asking too much" (1990: 235).

CHAPTER 5: METHODOLOGY

5.1 Introduction

A successful research study is determined by a good research design that can effectively process all relevant information and provide the needed answer to the research questions. Therefore, it is imperative to identify suitable research methods and analysis strategies that can help attain the goals of this research. To reiterate, the purpose of this research is to examine the experiences of the incubatees who develop apps at iCB and more specifically, to consider the extent to which, and how, is trust a determining key factor that fosters cooperation and innovation amongst them. I begin this chapter with an account of the epistemological overview and its relevance to the standpoint of this research. I then move on to discuss other methodological issues, including rationale of employing the chosen methodology, sampling issues, data collection, data processing and analysis of the data. Finally, I discussed on the ethical considerations pertinent to this research.

5.2 Epistemological consideration

Bryman (2012) discusses how quantitative and qualitative methodologies are different and opposing in their epistemological foundations which in turn determine how a social research is to be conducted (Ibid: 35). Such dissimilarities originate from the epistemological debate between positivism and interpretivism which “reflects a division between an emphasis on the explanation of human behaviour that is the chief ingredient of the positivist approach” and the interpretativist approach of “empathic understanding of human action” (Ibid: 29). The positivists see the world as an objective reality which is independent of human perception and “advocates the application of the methods of natural sciences to the study of social reality and beyond” (Ibid: 28). Social actors, as Durkheim claims, exist independent of its individual manifestations and should be studied objectively from the outside (Delanty and Strydom, 2003: 18). On the contrary, the interpretivists adopt Weber’s *Verstehen* approach – which is an interpretative understanding to explain social action from the actors’ perspective. The actions could either be internal or external work of agents of social action and are “subjectively meaningful” as to give the causal

explanation of another person's behaviour" (Weber, 1947: 7). Creswell (2014) points out that interpretivism is often combined with social constructivism, hence, social constructivists seek to understand how individuals "develop subjective meanings of their experience –meanings directed toward certain objects or things" (Ibid: 8). Interpretivism therefore resides along the "intellectual heritage" of "Weber's notion of *Verstehen*, the hermeneutic-phenomenological tradition, and symbolic interactionism" (Bryman, 2012: 30).

The research methods employed in this study are broadly informed of these debates and are inclined towards the interpretivist approach. The decision to adopt such a standpoint can be justified from the earlier point made in the literature review where it was made clear that the context of this research is based on how innovation is shaped by human actions through the 'interpretative flexibility' of 'relevant social groups' (Kline and Pinch, 1999: 113). In parallel, the theoretical framework of this research resides on the symbolic interactionism approach where according to Blumer (1962) requires for its users "to catch the process of interpretations through which [actors] construct their actions (Ibid: 188. What this means in relation to this research is that, the iCB incubatees as producers of apps associate different meanings to their work and those meanings are subjective in nature. Thus, in order to understand their actions specifically on their perceptions about the issue of innovation, cooperation, and trust, there is a need to adopt a proper methodology that could help in extracting such information from them. Thus, qualitative approach is deemed as the appropriate methodology. I will further discuss why this matter in the next section.

5.3 Rationale for using qualitative research methods

A research method is chosen due to its suitability to provide the researcher with ways to investigate the issue which eventually leads to answering the research questions. The decision to choose specific methods of inquiry is also determined by "the role of theory, epistemological issues, and ontological concerns" (Bryman, 2012: 37). In light of this, a qualitative approach is "broadly inductivist, constructionist, and interpretivist" (Ibid: 380). In addition, a qualitative method also concerns itself with

the viewpoints of the participants and their variations (Flick, 1998: 27). Moreover, a qualitative approach is an ideal approach to study participants' perception, experience, and interpretation of 'their world' (Blaike, 2000; Eberle and Maeder, 2002; Silverman, 2004).

Pertaining to the above and in view of the research questions of this study which, to reiterate, seeks a deeper understanding on the perceptions of the iCB incubatees on innovation, cooperation and trust, therefore, qualitative methods are the most appropriate tools. This is also because qualitative methods help to generate "a wealth of detailed information" which "increases the depth of understanding of the cases and situations studied" (Patton, 2002: 14). In other meaning, it facilitates with the in-depth and details understanding of "the varying perspectives and experiences of people" which is theoretically what this study is mostly concerned about (Patton, 2002: 14).

In this research, I had used qualitative interviewing as one of the primary means to acquire my data. To be exact, I chose to do semi-structured interviews. By doing the qualitative interviews, I was able to 'get closer' and immerse myself with the incubatees' perspectives by way of "listening deeply and attentively" to their "experience and perception" (Patton, 2002: 8). Simultaneously, I was able to experience the 'being-in' process, gain deeper understanding on the cases and situations under studied and at the same time gain richer, and more detailed data (Moustakas in Patton, 2002: 8).

5.4 Symbolic Interactionism – a tool for analysis

Analysis of the findings chapters of this research will not complete without substantiating it with a specific theory. A theory specifies relations among variables with a set of interconnected concepts, definitions, and propositions that help to explain as well as predict events or situations. Pertaining to this research, a theory presents a systematic way of understanding the concepts of informality and trust in connection to the experience of the iCB incubatees and the settings of the research.

When examining the qualitative data of this study, I believe it is useful to model the theoretical framework of this research, with the symbolic interactionism perspective (Blumer, 1962; Goffman, 1956; Mead, 1934). Moreover, it can also be deduced from the discussion in Chapter 2 on the values practiced by Brunei society that the symbolic interactionism theory can accurately explain such phenomenon. I will discuss symbolic interactionism based on the perspectives of renowned symbolic interactionists, namely, Blumer, Goffman and Mead. In addition, I will also employ other works that utilises symbolic interactionism in their work.

Symbolic interactionism, according to Herbert Blumer (1969), is “a relatively distinctive approach to the study of human group life and human conduct” (Blumer, 1969: 1). What he means by “relatively distinctive approach” is that symbolic interactionism is mostly concerned on unravelling “the peculiar and distinctive character of interaction as it takes place between human beings” (Ibid: 78-79). Blumer’s symbolic interactionism approach can be explained using three premises. The first premise is that “human beings act towards things on the basis of the meanings that the things have for them.” (Blumer, 1969: 1). This includes people’s conduct towards “physical objects” and “other human beings” (Ibid). Other factors influence the conduct such as “social roles, cultural prescriptions, norms and values, social pressures, and group affiliations” (Ibid). Thus, in the context of the iCB incubatees, it involves their action towards, to name a few, the iCB as an institution, their respective team members, and the iCB officials. Also, preliminary analysis of this research’s data shows that cultural elements such as norms and values play significant role in shaping the conducts of the iCB incubatees. The second premise is that the meanings are derived out of one’s social interaction with others (Ibid). In other words, “symbolic interactionism sees meanings as social products, as creations that are formed in and through the defining activities of people as they interact” (Ibid: 5). In the two findings chapters of this research (Chapter 6 and 7), it can be seen that both informality and trust are derived out of the iCB incubatees’ interactions with others. The third premise, according to Blumer, is that the “use of meanings by the actor occurs through a process of interpretation” (Ibid: 5). The meaning of things, as stated in the two previous premises is “formed in the context

of social interaction and is derived by the person from that interaction” (Ibid: 5). In other words, the use of meanings to form the person’s action involves his or her own interpretative process which is “a formative process in which meanings are used and revised as instruments for the guidance and formation of action” (Ibid). Thus, as exemplified in this research’s findings, it shows how the incubatees derive meanings out of their social interactions and interpret the situation to form informal conduct as well as establish trust on their relationships with their own teammates.

On the same ground, Jones and George (1998) argue that symbolic interactionism could be defined through its two primary characteristics. First, symbolic interactionism happens through the action taken by people in social situations where they learned to associate their action with social meanings; and second, these social meanings are created over time through experiences of interactions with others (Jones & George, 1998: 535). Through encounter with others, people began to understand on others’ expectations and needs by adjusting their communication and behaviour and to eventually agree with creating and negotiating on specific social meanings that works between them (Ibid). In reference to the Bruneian values, it could be seen that trust is intertwined within the values of the people and therefore it is essential that everyone maintain these trustworthy values within them. Moreover, there is always expectation that everyone should behave trustworthily and thus bind by the collective sentiments of the society. If one dares to break the trust, the consequences will be quite devastating. The small number of Brunei’s population added with the tightly knitted nature of the Brunei society means that news could easily spread, and offenders might find themselves under the gaze of the society.

In defining the central principal of symbolic interactionism, Blumer (1969) asserts that to make an empirical analysis of human society, the process of analysis must begin with analysing their action (Ibid: 6). Human beings, as Blumer noted, are engaging in action with others corresponding to the situation that confronts them (Ibid). He further asserts that empirical validity in analysing human society can only be achieved by including the analysis of human action because “human groups or society exists in action and must be seen in terms of action”. Thus, according to

Blumer, symbolic interactionism's fundamental principal is about applying such analytical scheme which "must respect the fact that in the first and last instances human society consist of people engaging in action" (Ibid: 7). Simply put, as Blumer frequently reiterates throughout his writings, symbolic interactionism ultimate concern is on human action through the process of interactions.

Blumer highly agrees with George Herbert Mead's analysis of symbolic interaction. Mead separates social interaction into two types, the "non-symbolic interaction" and "symbolic interaction" (in Blumer, 1969: 8). According to Blumer, it is the nature of human society to engage with non-symbolic interaction which frequently involves immediate and unreflective response to others action. However, at the same time, "their characteristic mode of interaction is on the symbolic level, as they seek to understand the meaning of each other's action" (Ibid: 9). Simply put, Mead's identification of non-symbolic and symbolic interactionism is grounded on the notion that "non-symbolic interaction takes place when one responds directly to the action of another without interpreting that action; symbolic interaction involves interpretation of the action" (Ibid). One highly important analysis of Mead's is on the significance of gestures in our daily interactions. A gesture includes "any part or aspect of an ongoing action that signifies the larger act of which it is a part", such as in "request, orders, commands, cues and declarations" (Ibid). Essentially gestures must have similar meanings for both the person who did the gesture and the person to whom the gesture is intended to generate an understanding between them (Ibid). Without the understanding, then "communication is ineffective, interaction is impeded, and the formation of joint action is blocked" (Ibid). In Chapter 6 of this research, the importance of gestures is exemplified as a cue for the incubatees to act informally particularly in their interactions with other app developers.

The central position of symbolic interactionism is that human society is made up of groups of people in association where they engage in social interactions. Through interactions, people can interpret on others' actions and shaped their own actions and conduct, so to fit into the society they are in. Moreover, "objects' play a vital role in symbolic interactionism. These objects made up the "worlds" of human beings and are the outcome of social interaction (Ibid: 10). Blumer (1969) classifies objects

into three categories, namely, physical, social and abstract (Ibid). He further argues that every object project a meaning to the person who himself is an object. The meaning is significant to the person as it aids in setting his view, and plan both his action as well as his interactions. Blumer further argues that different individuals defined a specific object differently according to how it was defined to him by others with whom he interacts (Ibid: 11). Objects and the meanings derived from them, according to Blumer, is a product of “social creations” which is formed during interactions. (Ibid: 11-12). Therefore, in human group life, the meanings of objects are formed, sustained and transformed through the process of social interactions. Pertaining to this research, the object under study is the iCB incubatees (social objects) and the way they define, interprets, and formed both informality and trust (abstract objects) through their interactions with others. The meanings derived from the abstract objects in turn influences the iCB incubatees’ actions and conducts, specifically on their cooperation and innovation.

The position of Erving Goffman in defining symbolic interactionism is somehow different from Blumer’s and Mead’s. Goffman’s symbolic interactionism is mainly concerned about face-to-face relationships and the way “control is achieved largely by influencing the definition of the situation” through interactions (Goffman, 1956: 2). In his opening introduction, Goffman exemplifies how others seek information on an individual in order to aid them “define the situation, enabling others to know in advance what he will expect of them and what they may expect of him” (Ibid). Also, by having prior information about him will help them to “know how best to act” and gain his positive response (Ibid). However, according to Goffman, it was not only groups that attempt to control a certain situation, but it will also be the interest of the individual in mind to “control the conduct of others, especially their responsive treatment of him” (Ibid: 2). This is possible as the individual will try to influence the definition of the situation by conveying certain impression that will lead others according to what he has planned (Ibid: 2-3). In other words, it is in the interest of the individual to express certain manner that will evoke from others the response that he anticipates. The others in turn will also response in the manner that they can also “effectively project a definition of the situation” and evoke a certain response

form the individual (Ibid). According to Goffman, usually people will try to reach a consensus in their responses (interactions) in order to avoid clashes even though this could only be a temporary settlement (Ibid: 3-4). Aside from initial information acquired, Goffman also asserts that settings play a fundamental role in shaping the interactions between two parties. Thus, for example, he exemplifies that a conversation between two friends at lunch is dissimilar with interactions between a specialist and a client at a professional setting (Ibid: 4). In Chapter 6 of this research, Goffman's notion of control is employed to explain the process of informality at iCB. In short, it was found that informality prosper within the iCB settings due to the way the situation was control by the iCB officials and thus in turn facilitate cooperation and innovation amongst the iCB incubatees.

Another important observation by Goffman (1956) is the importance of "moral character" in defining the situation. According to Goffman, any individual within society has the expectation to be treated by others based on the social characteristics that he or she projects. Therefore, "when an individual projects a definition of the situation and thereby makes an implicit or explicit claim to be a person of a particular kind", that is, for him or her to be valued and treated "in the manner that persons of his kind have a right to expect", it will then reveal to others the cues on how to act and what to expect from that individual (Ibid: 6-7). Thus, in analysing the interactions between the iCB incubatees and other professional app developers, it was found that the style of interactions gave cues to the incubatees to be informal and exchange conversations in a friendlier way. This is discussed in detail in Chapter 6 of this research.

When it comes to framing the context of trust within this research (Chapter 7) and the experience of the iCB incubatees, it is appropriate to explain trust from the symbolic interactionism perspective. Thus, the primary focus will be on the way trust is constructed and the conditions that influence trust building. Therefore, on this matter, aside from the other symbolic interactionist approaches, I will utilise the symbolic interactionist approach as employed by Jones and George (1998) to explain the construction of trust within teamwork:

“In the context of the evolution of trust, two or more parties are involved in creating a joint definition of the social situation. Each party brings its own set of interpretive schemes to the social situation. To the extent that they use or develop similar interpretive schemes to define the social situation, the parties will tend to agree on their perceptions of the level of trust present in the social situation, so adjustment to each other takes place. The likely nature of this adjustment depends on the degree of congruence or similarity between the values, attitudes, and moods and emotions of the two parties.” (Ibid: 535).

From the above excerpt and drawing from the findings of this research, it is evident that similarities on social aspects are crucial in determining the level of trust amongst the incubatees. All the incubatees are born and raised in Brunei and most had gone through their primary, secondary and tertiary education in Brunei. It could be assumed that their experience of growing in Brunei together with the experience of secondary socialisation through interactions with their peers has contributed to the development of their characters and self-identity which are greatly influenced by the norms and values practised by the Bruneian society. As discussed earlier (Chapter 2), there are expectations for every Bruneians to adhere to the social values and norms that are practiced and idealised in their society. In other meaning, the expectation is that every individual is supposed to adhere to some level of trustworthiness by observing to the collective sentiments of norms and values of the people. Luhmann (1980) suggests that such trustworthiness assumes that others are sharing the same values as one does and therefore to begin with distrust will only make things complicated particularly when it comes to the beginning of a relationship. Equally, as proposed by Jones and George (1998), “People approach interactions based on their own orienting values, and, if they have no obvious sense that some form of value incongruence exists, they suspend their beliefs that the other party is not to be trusted” (Jones & George, 1998: 536). Through an enormous time and energy, trust is solidified through exchanges of role, feelings and thoughts and over time through

mutual understandings of behavioural exchanges trust is concretised within the relationship (Ibid). All these relate well in order to explain the data analysis of this study i.e. by using the theory of symbolic interactionism to explain how trust is constructed within teams of incubatees at iCentre Brunei.

As repeatedly emphasised, this study will utilise symbolic interactionism to explain both informality and trust. According to Misztal (2000), Blumer's symbolic interactionist perspective has been extensively used "in analyses of the micro processes among individuals within small group contexts" (Ibid: 28). Thus, as this research focus on the analysis of small teams of incubatees residing at an IT incubation centre, thus it is highly appropriate to employ symbolic interactionism as the focal theory of this research. Informality, as Misztal discusses in her book, has been widely analysed using symbolic interactionism theory. She elaborately explains the work of prominent symbolic interactionists and how it relates to informality. When it comes to trust, the explanation however is not limited to one sole theory. In fact, there exist other theories to describe the trust phenomena according to how trust is perceived in different contexts. One prominent theory often employed to explain trust is the rational choice theory. Originating from economics, the rational choice theory has extended into the realms of political science and gradually into sociology. Misztal (1996) advocates that the "rational choice theory assumes that any participation in collective action can be explained by models of rational individual action, where rationality is understood in utilitarian terms as a matter of satisfying the individual's preference, and consists in choosing that action that is most likely to produce the highest 'utility' for the actor" (Misztal, 1996: 77).

One of the most influential works on trust that utilises the rational choice theory is the work by Gambetta and his colleagues, *Trust: Making and Breaking Cooperative Relations*. In her review about Gambetta's work, Misztal (1996) points out that Gambetta and others puts trust as a product of objective conditions with time and experience as crucial components determining whether one should trust or not. In other meaning, the suggestion is that trust takes place in "successive stages, tentatively, and conditionally" (Misztal, 1996: 84). More importantly, Gambetta and counterparts see trust as "a precondition for cooperation... a form of reliance on

other people, which involves beliefs about the likelihood of their behaving in a certain way” (Ibid: 82). In a way, this highly suggest that Gambetta and his counterparts believe that “the best way to explain human behaviour is by assuming that the individuals are likely to behave rationally and that the best strategy for cooperation is to put faith in trust” (Ibid: 84). Misztal (1996) also points out that such definition of trust is only reliable when it comes to formal definition that applies to formal economic conditions but fails to acknowledge trust in intimate relationships such as good will trust between friends or partners (Ibid: 82). In the context of this study, it is evident that that rational choice theory cannot be fully utilized to explain the case of the incubatees at iCentre Brunei. The importance of social norms and values added with intimate relationships and collective societal sentiments that are ingrained with the social identity of each individual incubatees plays crucial factors in building their trust characters inside their respective teams. The symbolic interactionist approach therefore provides a more holistic coverage on the trust experience of the incubatees, which is evidently lacking in the rational choice theory.

5.5 Sampling: Recruitment and selection criteria

In relation to this study’s research questions that seek for a deeper understanding on the experience of the incubatees in developing apps, it is therefore appropriate to employ qualitative interviewing as the research methodology of this research. Pertaining to this is on the selection of the type of sampling, which also needs to be in direct reference to this study’s research questions. In addition, is also imperative to specify and be explicit on the selection criteria of the sampling unit that will be the focus of attention in this research.

The type of sampling is usually decided by the nature of the research itself, where probability sampling is often emphasised for quantitative research, and purposeful sampling is deemed more appropriate for a qualitative approach (Bryman, 2012: 416). Each type of sampling has its own ‘logic and power’ – the probability sampling is for generalisation purposes, and the purposeful sampling is to acquire an in-depth understanding of a particular study (Patton, 2002: 46).

Given that this study seeks to gain a deeper understanding on the perceptions of the incubatees at iCB on innovation, cooperation and trust, thus purposive criterion sampling is the appropriate method for this research. According to Bryman (2012), purposive criterion sampling can be identified as a type of purposive sampling which sample all units (cases or individuals) that satisfy specific criterion (Ibid: 419). In addition, the goal of purposive sampling is to sample units in a strategic way corresponding to the research questions asked and the research goals in mind (Ibid: 418). Besides, the sampling is chosen because they are the ‘information-rich cases’ from where “one can learn a great deal about issues of central importance to the purpose of the inquiry” (Patton, 2002: 230).

In view of the research questions of this study, the iCB incubatees and the iCB officials are identified as the units of analysis. I had recruited eleven incubatees from four different teams who have been at the iCB for six months and longer. I have purposively identified the incubatees’ teams according to the period that they have enrolled at the incubation centre. This selection criterion was made in consideration of the incubation period that is permitted at the iCB, which is for a period of two years. Thus, I had made decision to only include incubatees’ teams that are in their six months (two quarters)¹⁵ of enrolment to be recruited as informants of this research. The justification for doing this is because during the first six months, the incubatees’ teams are still in their probation and training period and are still familiarising with their new workplace and its rules and regulations. Moreover, they are also still exploring and experimenting with their product, hence it is too early to interview them. On the contrary, iCB incubatees that are in their third quarters and above should have undergone the probation and the training period and be familiar with the rules and regulations. They should also have begun producing their own apps.

¹⁵ The iCB allows a maximum incubation period of 24 months, or in their terms – 8 quarters. Each quarter is equivalent to 3 months. The incubatees are reviewed by the iCB and BEDB board members every 2 quarters, in which they (the incubatees) are expected to produce marketable apps or have received an injection of investment from angel investors or venture capitals or acquired over by another company during the time of review. Incubatees are normally given up to 12 months extension period at iCB if they are not able to launch their product after 8 quarters. In worst case scenario, their incubation stay could be terminated even after 2 quarters.

I had also interviewed the management team of iCB as well as those from BEDB who were involved in the running and inspection of the incubator. iCB is a small size-institution and during the duration of the fieldwork, there were seven people who were involved in its management. The management team were comprised of supervisors, trainers, managers and directors. The management was expected to play a determining role and shape the experiences of the teams of incubatees and by interviewing them I was able to identify the barriers to, and enablers of, innovation at iCB. This is explained further in the website evaluation section (section 5.7.1.1) of this chapter.

5.6 Gatekeepers and key informants

Gatekeepers and key informants are an imperative part for this study. In view of this research, both are significant source of data as the research is dealing with a state-led ICT innovation centre, which is controlled by bureaucratic institutions. The presence of gatekeepers will allow access to social settings, which are crucial first step for this research. (Bryman, 2012: 438-439). Key informants provide assistance in terms of support on how and where to get the information needed for this study. I had identified one gatekeeper and one key informant for this study. Both hold important and influential positions that have direct control in the management of the incubation centre. The gatekeeper holds one of the senior positions at BEDB (Please see the organisation structure of the iCB in Chapter 2). The key informant was previously a work-colleague who has transferred to iCB to become one of its directors. I managed to get in contact with the key informant during a short visit to the iCB back in September 2013. Both have provided support and assistance in some early preliminary part of this research, for instance, in providing some background knowledge and logistic information about the iCB.

5.7 Methods of data collection

Data collection is considered as a key point of any research project. Qualitative data collection methods include participant observations, texts analysis, interviews, and visual data analysis (Silverman, 2004). In view of the research questions of this study, two types of data collection methods had been employed for this research –

document analysis and semi-structured qualitative interviews. As this study concerns 'an ideal-typical organisation', document analysis is considered as a suitable data collection method to be employed because organisations tend to have high dependency on both written and electronic records (Atkinson & Coffey, 2004: 57). The document analysis was done in the preliminary stage of this research and the outcome was used to construct the interview and observation part of this research. Observations allow first-hand experience of the situation and to view the meanings from the perspective of those under observation (Patton, 2002: 262). Qualitative interviewing allows the exploring of experiences, opinions, feelings, and knowledge (Patton, 2002: 4) of the incubatees, which might also include their thoughts, values, expectations and judgements.

To further the objective of this study, as well as to further support data collection and data analysis, I had utilised the grounded theory method. This method was used as a guideline technique to gain data and carry out analysis on the qualitative interviewing part of this research. The grounded theory method is the brainchild of Glaser and Strauss (1967) but has undergone various modifications to serve different research needs (Bryman, 2012: 567-568). They defined grounded theory as "the discovery of theory from data – systematically obtained and analysed in social research" (Glaser and Strauss, 1967: 1). Simply put, "the theory produced is grounded in the data" (Urquhart, 2013: 4). Thus, the main aim of grounded theory is "to generate or discover a theory" (Ibid).

To be concrete, I will illustrate the procedure in relation with the current research as follow. This research is interested in understanding innovation amongst incubatees at an ICT incubation centre, also known as iCB. Based on the existing literature, the theoretical insight of this research is that, innovation is a result of cooperation that is fostered by informality and trust. However, these theoretical insight or ideas are put aside "in order to let the substantive theory emerge" (Ibid: 7). The first step in the qualitative interview is to start with an informant from an incubatee team that has fulfilled the sampling criteria. The selection of the incubatee was made by utilising the qualitative technique of purposive criterion sampling, which allows for the selection of "information-rich cases" (Patton, 2002: 230). I had conducted the

interview and coded the findings, which were then used to develop a loose descriptive theory about incubatees' innovativeness. In the next step, I did several interviews with several more incubatees that are more or less similar with the first case. Similar process in the first interview follows and new emerging concepts derived from the interviews were used in subsequent interviews. The reason for this was to make comparison throughout the data. Again, the new findings were coded and categorised accordingly.

As the interview progresses with other incubatees, new categories and concepts are identified and developed until there is no new conceptualisations emerged. Accordingly, the new cases may give contrasting data, thus new categories or concepts were made on the existing findings. The process of data collection and reformulation continues until it has reached saturation point i.e. where the new cases and findings no longer produce different results. The data is then analysed, and the resulting theory is then compared with the existing theory and presented in the findings of the research.

5.7.1 Document analysis

The first step in data collection is to locate the available sources that have information on the iCB. This should come in the form of documents that is of relevant to this research either on paper or in virtual form. In the case of this study, the virtual documents supply most of the information about the iCB. The relevant documents, according to Bryman (2012), should not be "produced at the request of a social researcher – instead, the objects... are simply 'out there' waiting to be assembled and analysed" (Ibid: 543). Once they are collected, the data will need to go through stages of analysis and interpretation in order to "ascertain the meaning of the materials" (Ibid). For example, identifying underlying themes is extensively practiced in qualitative analysis of documents (Ibid: 557). In addition, Scott (1990) emphasises four additional criteria to access documents, i.e. authenticity, credibility, representativeness, and meaning (Ibid: 6). This research will make use of these criteria in assessing the relevant documents acquired prior to the fieldwork.

5.7.1.1 Virtual documents – Analysis of iCB website

It has come to my attention that some parts of the iCB's website and the webpages are relevant to the direction of this research. In fact, the use of Internet as a source of information for both quantitative and qualitative content analysis is not unusual nowadays as "the Internet becomes more and more ubiquitous, it saturates literally every part of our civic, social, and professional lives" (Bryman, 2012: 654, Markham, 2011: 112). Moreover, the use of websites and webpages as part of document analysis is no stranger to research on organisations (Jose and Lee, 2007; Sillince and Brown, 2009) as certain parts of the website is "meaningful" to the context of the research concerned (Markham, 2011: 113). Considering this, I had examined the website and webpages of iCB and linking it to the research theme of this study. It is also worth mentioning here that the due to the brief content of the iCB's website means that extensive analysis cannot be fully done. This is said in comparison to other studies that employed website analysis (for example; Dorsey, et al., 2004; Sillince and Brown, 2009).

A close examination of the iCB website reveals that it was linked to the following four objects; the incubation centre, the management team, the incubatees, and the activities. Further inspection of the website shows that three distinctive themes could be discerned in the ways in which innovation and cooperation were represented on the website. The three themes are; as dynamic; as projecting image of innovation and cooperation, and as a friendly setting. The following paragraphs are the analysis of the four objects of the websites with the identified themes.

The iCB was projected as a dynamic organisation by featuring a webpage that shows the 'core value' that form a motto, 'One individual, One Dream, One Creation, One Network, One Integrity'. This motto was then broken into five categories with each having supporting characteristics (see Table 2). The website also infers the iCB as a place for innovation and cooperation through its vision and mission statements. One of the website's webpage named 'iClub' projects the iCB as a friendly place through photos that shows people, presumably the incubatees, enjoying their bi-monthly gathering at the *Coffee Zone* located at the iCB.

INDIVIDUAL	DREAM	CREATION	NETWORK	INTEGRITY
Commitment	Ambition	Capabilities	Growth	Trust
"Can-do" attitude	Inspiration	Opportunities	Global	Responsible
Professionalism	Achieve success	Solutions	Community	Ethically
Fun	Full potential	Ideas	Linkages	Teamwork
Respect	Excellence	Innovations	Collaborations	Leadership

Table 2 – Categories of the iCentre Brunei's core value

(iCentre Brunei website. Accessed 6 May 2014)

The management team was projected as dynamic team that supports the iCB. Although references to them were not made obvious on the website but their views and visions made up the contents of the website. Thus, for example under the 'vision & mission' webpage, it was stated that "Our Mission: To be a world-class incubator and Brunei's centre of entrepreneurial development and excellence." This shows the hope and vision of the management team of the iCB. Equally, they were also projected in positive ways throughout the website in connection to being innovative, cooperative, as well as friendly.

The teams of incubatees were introduced under the 'Incubatees' webpage. The descriptions that were made about them inferred how dynamic and innovative they were. In addition, they were also visualized as friendly people through photographs as well as the networking session that they had conducted, particularly under the 'iClub' webpage.

The activities at iCB were projected as dynamic under the 'Think Big' webpage, which includes entrepreneurship challenge competition, as well as mentorship programme. The activities obviously promote innovation and cooperation amongst the incubatees, as well as friendly settings through workshops and networking sessions.

The analysis on the iCB website and webpages above shows that they conflate to some degree with the last two of the three research themes identified earlier in this study (Chapter 1). To reiterate, the three research themes deal with, firstly, with SCOT, second, on the examination of the experience of iCB incubatees who are apps developers, and third, on how they secure innovation, cooperation and trust amongst themselves. What this means is that the website could then be used to shape some of the interview questions of this study and be used as instruments to extract data from the informants.

Another important outcome of the website analysis was on the role played by the iCB management in defining the conditions of innovations and cooperation amongst the incubatees. Based on Table 2, it can be assumed that the core value was fostered into the incubatees through the skill-building and mentorship programs arranged by the iCB management. Thus, since the management play active role in nurturing the core value to the incubatees, therefore it was necessary to get their perspectives about the incubatees by including them as informants in the qualitative interviewing.

5.7.2 Interviewing

Interviewing is probably one of the most often used methods of qualitative research mainly due its nature that seeks to "understand other persons' construction of reality" (Jones, 2004: 258). The primary aim of conducting qualitative interviews is to "generate data which gives an authentic insight into people's experiences" (Silverman, 2001: xx) and to give their own explanations on "the meanings and significance of their actions" (Jones, 2004: 257). Therefore, it makes sense to seek clarification by asking people about their experience through verbal interviews (Seale, 2004: 253) through direct face-to-face conversation that will give opportunity to the researcher to gain 'rich detailed answer' to his/her questions (Brenner et al.,

1985: 3; Bryman, 2012: 470). In the same way, qualitative interviewing allows researcher to gain “important insights for theoretical understanding” by means of combining both the contexts and situations of the phenomenon under investigation and the perceptions of the respondents on that particular experiences (Miller and Glassner, 2011: 145). In the case of this research, qualitative interviewing is the primary methodology where data is derived from.

To have an effective interview, there is a need for good interpersonal skills. This can be achieved by developing good relationship with the respondent and at the same time eliminates the feeling of awkwardness and suspicion that the respondents might have during the interview (Arksey and Knight, 1999: 101). In the case of this research, one way to instil good relationship with the potential informants was by meeting them at their respective incubation rooms and explained to them the purpose of the study and asking them if they are willing to be interviewed. To make things clearer, an information sheet (Appendix 1 and Appendix 2) was provided where it includes explanatory details about the research and the contact details of the researcher. As a result, most of the iCB incubatees agreed to be interviewed for this study.

For their convenience, most of the interviews were conducted at iCB. The reason for this is because the iCB is a familiar place for both the iCB incubatees and the officials where they feel at ease and at the same time be able to relate the interviews with the place itself. In regard to the timing of the interviews, the respondents were given the opportunity to choose the convenient date and time, thus assuring a good rapport was established with the respective respondent.

During the interview sessions, I usually started with introducing myself and begin with small talk about some familiar topics such as gaming or good places to eat. The reason for doing this is again to develop a good rapport as well as “to break the ice” (Bogdan and Biklen, 2003: 95). I would then move to explain about the interviews and assure the confidentiality of the interviews, so as to encourage the informants “to speak more freely” (Ibid: 103). By assuring all these conditions have been met, I

was able to gain more insight on some 'sensitive stories' about the experiences of both the iCB incubatees and the officials.

Before I began the interview session, I remind the informants that the interview will be recorded, and all the recorded information will be treated at utmost confidentiality and will only be reported in anonymous form. I also produced the consent interview form (Appendix 3 and Appendix 4) for the informants to sign and went through the details in the form to ensure that they understand all the procedures. All of the respondents agreed to sign the form and allow for a voice recorder to be used during the interviews.

In this research, I had conducted qualitative interviewing by using a semi-structured interview approach. A semi-structured interview is a kind of interviewing technique which is guided by a list of questions on specific topics, but the interviewee still has the flexibility on how to reply. During most of the interviews, I had the flexibility to ask new questions based on "things said by interviewees" (Bryman, 2012: 471). The reason for choosing a semi-structured interview is primarily because the approach allows greater opportunities for the interviewees to express their point of views. In addition, through the flexibility of the approach, I was also able to adjust "the emphases in the research as a result of significant issues that emerge in the course of the interviews" (Ibid: 470). Thus, I was able to get more insights and rich information that were useful to this research.

By using the semi-structured interview approach means that questions are to be prepared in advance before the interview takes place. In preparing the research questions, I had followed some basic elements that are strongly recommended and emphasised, for instance the questions need to be inquisitive to the researcher, such as questions coming from random thoughts, discussions, or from the existing literature on the topic (Ibid: 473). The questions were also formulated in a way that it will help to answer the research questions. Equally, "the formulation of the research question(s) should not be specific that alternative avenues of enquiry that might arise during collection of field work data are closed off" (Ibid). In addition, the questions should not be leading, and the language used should be 'comprehensible

and relevant' (Ibid). Moreover, since this is a qualitative interviewing approach, "the questions usually starts with *how* or *in what ways* and *what*" (Bloomberg and Volpe, 2012: 63, emphasis in original).

In order to make sure that I will get optimum output from the interviews, Bryman (2012) suggests that the questions should be 'highly variable'. Thus, the interview questions in this research will use Kvale's (1996) 'nine types of questions' as a guideline in formatting the questions and conducting the interviews. The 'nine types of questions' are; introducing questions, follow-up questions, probing questions, specifying questions, direct questions, indirect questions, structuring questions, silence, and interpreting questions (in Bryman, 2012: 476-478). For instance, when posing probing questions – it is good to word the questions in such way – "Could you say more about that?" or "In what ways do you find X disturbing?" (Ibid: 478).

Therefore, following the recommendations and suggestions above, the interview questions for this study were categorised and structured based on the theoretical structure of the research questions (and the subsidiary question). Two sets of interview questions were prepared for this research, one for the iCB incubatees and one for the iCB officials. The primary questions were mostly based on the main concepts used in this research, namely, cooperation, innovation and trust. A general question at the beginning of the interviews asked for the personal details of the informants such as age and educational background. In addition, the general questions for the iCB incubatees also include inquisitive questions such as the reason for joining iCB, the views on iCB as a whole and the expectations that they have when they started to join iCB. Whereas, the set of questions for the iCB officials includes the general personal questions as well as the concepts questions in relation to their job role at iCB.

The interviews were mostly conducted in English language. Prior to the interview, the informants were asked on the language preferences that they are comfortable with. Most of them opt to converse using the English language since it was the conventional medium used daily at iCB. However, there were some occasion where the informants resorted to mixing English and Malay languages in the interviews

particularly when they felt it was difficult to express the meaning of some matters. This was acceptable because for most Bruneians the mixing of both English and *Bahasa Melayu* which is very common in daily conversation. Thus, the interviews were mostly conducted with flexibility on the languages used, which evidently has allowed the informants to better express their views and adequately answer the interview questions.

5.8 Research Ethics

Ethical issues need to be given proper and thoughtful considerations as they concern how research is being conducted and how data is collected, which therefore “relate directly to the integrity of a piece of research and of the disciplines that are involved” (Bryman, 2012: 130). For this study, the principle concerns are mostly on several questionable practices that might be encountered in and during conducting the fieldwork research. Four main principles of concerns are; whether there is harm to participants; whether there is a lack of informed consent; whether there is an invasion of privacy; and whether deception is involved (Bryman, 2012: 135). The first three out of the four principles will be explained in relation to this research, although at some points they might overlap each other (Ibid).

The first ethical issue of this study concerns the issue of privacy and the harm it can do to informants. This ethical issue rises due to two particular reasons; firstly, due to the small size of the iCentre managements, and secondly, because of the nature of work of the incubatees. As previously mentioned, they were only six iCB officials whose responsibilities include the supervision of the incubatees as well as to handle the administrative matters of the iCB. Being a small organization, thus it might be difficult to anonymise the identity of the officials who participate in this research. In the case of the incubatees, due to the unique nature of their products, thus it makes it easy to identify them. In both issues, there is an obvious problem with protecting the anonymity of the informants. A formal consent form was given to the informants for them to read and for them to raise questions if they have concerns about the study. If they agree to participate, I will get them to tick a box in the consent form in which they acknowledge that their anonymity will not be recognised in this research.

However, as a compromise, I will use pseudonyms for all interviewees in my PhD work and also I will promise to do so in any future publications. In addition, I will also promise to take great care in maintaining the confidentiality of the interview records.

The second ethical issue identified in this study concerns the information sheet and the consent form for the organisations (iCentre Brunei and BEDB) and the informants. To ensure that the organisations and the informants know what they are committing themselves into, I will give as much as clear information as possible about the research to them, so that they will be able to “make an informed decision about whether or not they wish to participate in the study” (Bryman, 2012: 138). Thus, in regard to this ethical issue, I will provide separate information sheets, one for the organisations and another for the informants (Please see Appendix 1, and Appendix 2). In addition, I will obtain signed consent forms from every informant (Please see Appendix 3 and Appendix 4).

5.9 Pilot study

The intention of a pilot study is to pre-test some aspects of the methodology and data analysis process that is intended to support the actual study. According to Bryman (2012), a pilot study allows for the identification of any problems that might emerge during the actual study and for the researcher to address it (Ibid: 263). In this research, the pilot study looks specifically at the interview guide and the observation guide that have been developed and to pre-test whether or not the guides furnish relevant information for this research. The test is also to establish effective procedures for analysing qualitative data.

There are two methodological techniques that have been developed in order to collect data for this research, i.e. observation and interviewing. The observation is the secondary technique of this research and the interviewing is the primary one and thus given an utmost attention. Each technique has its own guide that was developed prior to the pilot study taking place. These guides were attentively followed during the pilot study in order to ensure that the latter is not strayed beyond the aim and objectives of the research.

The interview guide comprises of a large variation of questions, which targeted at three areas of this research, namely innovation, cooperation, and trust. The questions are phrased in a way that the answers will reflect the desired information related to the three areas mentioned. Apart from the main questions, some follow-up questions which are meant for probing was also prepared and to be asked in situations which are deemed suitable. By asking these questions, additional information could be derived from the interviewee as well as to ensure that the interview conversation runs smoothly.

The observation guide is also pilot-tested. The observation guide is meant to assist in a way that it will make the researcher alert of the situation being observed. Thus, for example, in the context of this research, as observations were conducted in meetings, an utmost attention is given on the way the meetings was conducted and matters that are frequently brought up and mentioned in the meetings which are related to the three focus area of this study, that is, innovation, cooperation, and trust. Field notes were taken in the form of descriptions of the situation and the relevant content of the conversations. The field notes of the observations were then compiled which was then followed by an analysis report. The analysis report is useful as it helps to identify theme(s) that was missed during the preliminary stage of developing this research.

The pilot study was conducted from 26th August 2014 till 5th October 2014 in Brunei. Six interviews and three sessions of observations were conducted. There are two categories of informants in this research, the iCB incubatees and officials of iCB and BEDB. The sample of the informants was purposively selected. For the informants involving the iCB incubatees, two team members were selected from two incubated teams. For the informants comprising of officials, I have managed to interview two iCB officials.

The pilot study proves to be a useful exercise as it provides a cross comparison with the original schedule that is planned for the actual fieldwork. In addition, the process of data collection as well as data analysis also allows for gaps to be identified and to be addressed for the upcoming actual fieldwork. Moreover, through the pilot study,

I have also realised that the process of transcribing the interview recordings could take longer time than what I have expected.

The pilot study also reveals some important aspects regarding the suitable timing to come to the iCB for doing interviews and observations. In Brunei, the public sector working days are Monday through Thursday and Saturday. iCB is part of this public sector, however, its working days does not follow those of the public sector. In fact, the working days of the iCB follows the typical private sectors in Brunei, which are from Monday through Friday. The iCB also has different working hours compare to the typical public sectors in Brunei that is from 8 in the morning till 4.30 in the afternoon. The iCB working hours are from 9 in the morning till 5.30 in the afternoon. Thus, the actual study has to take into account about this and to make necessary adjustment in the fieldwork schedule.

5.10 Fieldwork research in Brunei

The actual fieldwork was conducted from 15th February 2015 until 30th April 2015. The main task of the fieldwork is to collect interview data and to do some observations. Another important task is to transcribe the raw data. A good time schedule is therefore deemed important to ensure that the fieldwork will run smoothly without much interruption.

Based on the pilot study experience and in regard to the timing, the work schedule of this research was designed to fit into the schedule at iCB. Moreover, because of the busy work schedules that the iCB incubatees and the officials had, thus schedule appointments had to be made with them for a suitable time for interview sessions or observation session. As this study recruited 17 informants, the number of days allocated to do the interviews was approximately 20 days. The observations were limited to 5 sessions in the form of visiting the incubatees' workrooms and also attending schedule meetings. There were some occasions where interview sessions had to be rescheduled due to sudden interruptions or unforeseen circumstances on the side of the iCB incubatees and the officials.

The transcribing of the data took place between the interview days and the same applies to the compiling the observation notes. For such purposes a total of 30 days was allocated. However, taking into account on delays and other unforeseen circumstances, the total number of time needed was expanded to a 70 days, thus provide ample time to do all tasks properly.

5.11 Processing and Analysing Data

A systematic data analysis facilitates the arranging of data that will enable a researcher to come up with findings. According to Bogden and Biklen (2003), data analysis involves “working with the data, organizing them, breaking them into manageable units, coding them, synthesizing them, and searching for patterns” (Ibid: 147). Data analysis also includes data interpretation that refers to “developing ideas about your findings and relating them to the literature and to broader concerns and concepts” (Ibid). Both data analysis and data interpretation are tied together as in “findings and ideas about findings emerge together” (Ibid). Thus, both are on-going process throughout the research until everything is finalised in the research report. In view of the purposive criterion sampling and the grounded theory method of this research, both the interview data and the observation data were processed and analysed prior to interpretation that involves transcribing, coding, and interpretation of the data.

5.11.1 Transcription

As highlighted by the pilot study, I had realised that the process of transcribing the interview recordings could take longer time than what I have expected. Bryman (2012) highlighted this as a typical problem when transcribing interviews (Ibid: 484). In regard to this, I have learned to employ better technique in transcribing the interviews for the actual studies. Thus, to ensure that the transcribing was done properly and smoothly, I have employed transcribing computer software, the Transcriber. This software allows the user to select a time frame within the total time of the audio recording and put it in a loop so that the recorded interview can be listened repeatedly. For example, when I was doing the transcribing, I would usually select a minute time frame and put it in a loop, so that I could hear the conversations

repeatedly and simultaneously do the dictation. However, later on, I realised that this technique took so much time and it makes the transcribing an arduous task. I then decided to first listen to the recording within a specific time frame (for example, a minute) and then replayed it again with intermittent pausing and then did the transcribing. For example, for every 10 seconds that the recording played, I will click the pause button and did the dictation. This has helped me to capture the conversations and to save time. At the end of the one-minute time frame, I would listen to the recording again, and filled in the missing words. This technique proves to be more effective as well as efficient compared to the first technique that I have employed.

All the interviews were transcribed in verbatim. This is to ensure that during the process of analysis, all the data will be available and better understanding of the whole interview conversation can be helpful for the analysis. Moreover, to do own transcribing also has its advantages. Heritage (1984) argues that transcribing interviews bore several advantages, for example, it allows more thorough examination of the interview scripts, and it allows for the data to be re-examined in light of new theoretical ideas (Ibid: 1). Where some parts of the interviews were replied in *Bahasa Melayu* (Malay language), translation was made to the English language. Similarly, the same process was done for interviews conducted in whole in *Bahasa Melayu*.

5.11.2 Coding and data interpretation

After the task of transcribing and translating, the next task is to sort the interview scripts into codes and themes. Bryman (2012) describes the task as “not an easy matter and is baffling to many researchers” (Ibid: 565). Regardless, Bryman points out that thematic analysis is becoming a crucial part in the analysis of qualitative data (Ibid: 580). A theme could be identified in several ways, for example, as a category identified by the researcher, and as in relation to the research focus or the research questions of the study (Ibid). As the interview questions are already sorted into categories of concepts in this research, namely innovation, cooperation, and trust,

thus the task of allocating the themes of the transcriptions was not as daunting as it might be.

As informed, this study opts to use the grounded theory method to support its data collection and data analysis. Having said that, Urquhart (2013) defines coding as interrelated processes of categorising, analysis and theorising the data (Ibid: 35). Grounded theory method uses the “bottom-up coding”, that is, “when codes are suggested by the data, not by the literature” (Ibid: 38). This means that ground theory method researchers need to put aside their knowledge on the literature to avoid preconceptions on the raw data (Ibid). A bottom-up coding is when “coding occurs at the word and sentence level” which Urquhart asserts, allows for development of new insight (Ibid). To make the coding easier, each transcription was split into “chunks” according to the themes of the interview questions (Ibid: 92), namely innovation, cooperation and trust. However, before the process of coding starts, as suggested by Bryman (2012), a first reading was done “without taking notes or considering an interpretation” (Ibid: 576). This is to give a general understanding of the content of the transcript. A second reading then followed along with an open coding, which is coding done either line-by-line or word-by-word (Urquhart, 2013: 45) as shown in Figure 1.

When doing the open coding, Urquhart (2013) recommends that beginner start with coding in a descriptive fashion (Ibid: 81). However, the coding could also aim for an analytic code, which is, “one that analyse the data rather than simply describes it” (Ibid). In addition, despite Urquhart insistence that all raw data should be processed using the open line coding, she also asserts that such coding might take a long time to do and one can be appalled with it (Ibid: 48). Thus, the ground method theory she explains is open to modification where only key sections of the transcripts should be processed with open coding. In the case of this study, due to the large volume of interview data, I have decided to only select key as well as relevant sections of the transcripts to code. To do the selections, I have to read each excerpts in the transcripts repeatedly, quickly identify key words or make sense of the sentence and make the decision whether to code the excerpt or not code it.

After the first coding of a transcript is done, a selective coding then follows. Selective coding is “a process of scaling up your codes into those categories that are important for your research problem” (Ibid: 49). Selective coding is necessary due to the large number of concepts or categories that emerge during the open coding. Thus, selective coding is a grouping process of the codes into specific themes that has emerged during the open coding (Ibid: 49). This is shown in Table 3.

Selective Codes	Open Codes
Friendship	Positive relationship, social connection, acquainted, past history of friendship.
Bonding	Same circle of friends, bonding activities, same interest.
Agreement	Acceptance, being heard, views respected,

Table 3. An example of selective coding

During the coding process, new emerging concepts will emerge as the data was analysed. These new emerging concepts could be used to further sample the field, a process widely known as theoretical sampling. Thus, in the case of this study, based on the analysis that I had done on earlier transcripts, new questions were made for the specific category. When new data was acquired, these were then compared with the data of the same category from previous transcripts. By doing this again and again in a systematic way, I was able to achieve theoretical saturation, that is, “when the researcher finds no new concepts are emerging from the data” (Ibid: 9).

It is worthy to mention here that in the early stage of the coding process, I have opted to employ the Computer Assisted Qualitative Software (CAQDAS) to help with the categorising and coding of the interview transcripts. The software, NVivo was chosen to because it is one of the leading software widely used by social researchers. However, after doing almost half of the total number of transcriptions, I realised that I had difficulty to keep track of the themes and the voluminous filing made it even

more confusing and laborious. I also feel detached from the data as I was only reading chunks of excerpts and missing the connecting narratives. Thus, I decided to go back to using Microsoft Word and did the coding using the 'review window'. To help with the theoretical coding, different colour schemes were also used to easily identify different codes.

Following the selective coding is the theoretical coding. Theoretical coding is the stage where the codes are made to connect to other codes and form a theory. It can also be a stage where the codes are made to relate with ideas from the literature (Ibid: 51). In the case of this research, new emerging categories drawn from the selective coding were connected with the literature and the theoretical framework and then analysed further. The outcome of the analysis is presented in the two findings chapters of this research.

5.12 Summary

The research techniques that were employed in this research are seen as the most suitable to assist in accomplishing the objectives of this research. Important epistemological considerations and other critical reasoning were discussed to support the use of qualitative methodology in this research. The suitability of the techniques for collecting and analysing the acquired raw data are discussed and critically examined in length in this chapter. As this research seeks to have detail understanding about innovation amongst the iCB incubatees, thus, interviewing is the most suitable way to collect the primary data. A virtual document analysis was used to help prepare the interview guide, which was tested during the pilot study and revised afterwards to ensure its effectiveness in the actual fieldwork.

The most important aspect to ensure a smooth process of collecting the data until the analysis process is to have a good plan on the time plan and the work schedule. This is to ensure that there will be sufficient time left within the research time frame to complete subsequent tasks such as the writing process. Thus, practical things such as confirming interview appointments with the respondents and sticking to the routine of coding the interview data in between the fieldwork days were crucial.

The methods of sampling are also refined to make sure that accurate samplings are identified and approached in this research. Access to the institution and its people were enabled with the help of a gatekeeper and a key informant. With their help, rapports were made with the samplings and this was followed by the selection and recruitment process of the sampling.

The process of coding and interpretation of the acquired data have also been discussed. The grounded theory method was employed for the systematic coding of the raw data and simultaneously help to identify new emerging concepts. Additional questions were then developed relating to the new concepts, which are deemed relevant to this study. The raw interview data has to go through the open coding and selective coding process before it was ready for theoretical coding which is the critical analysis part prior to writing process. The outcome of the analysis is presented in the two findings chapters of this research.

CHAPTER 6: FINDINGS – INFORMALITY AT iCB

6.1 Introduction

Highly effective cooperation, as was highlighted in the literature chapter of this study (Chapter 2), is one of the most important conditions that support the continuous production of apps innovation amongst incubatees that develop apps at iCentre Brunei (iCB). In addition, cooperative behaviour also nurtured harmony and helps to strengthen the bonding of relationships within each team of incubatees and therefore ensure the survival and existence of the incubatees' companies within as well as beyond iCB.

The aim of this chapter is to provide answers to this study's first research question. Like in the previous chapter (Chapter 4), this chapter will continue to focus on the discussion of the main findings of this study in parallel with the symbolic interactionism theory. In contrast, I will shift the discussion of this chapter to focus on the topic of 'informality', which is the subsidiary question that guide the two research questions of this study, i.e. what are the roles of institutions and the roles of informal means in securing conditions for cooperation? Preliminary data analysis of this study shows that informality has certain role in influencing the condition that facilitates cooperation and innovation within teams of incubatees at iCB.

As mentioned in Chapter 1, the early foundation of this study is grounded on the Social Construction of Technology (SCOT) theory (Bijker, et al., 2015). To briefly recap, the SCOT theory contends that the development of a certain technological artefact cannot be solely reasoned on science alone. It therefore argued that technological production is more of a result of a socially constructed situation rather than of science alone. To prove the arguments, the SCOT theory underlined the social relationships between technologists and users to explain the development of a particular technological artefact. However, as was explained in chapter 1, this study is somehow different from many researches that utilise the SCOT theory because it sought to scrutinise a 'branch' of the SCOT theory that is deprived of research, that is, the examination of social relations (and other conditions) amongst technologists

in a specific setting in order to explicate sociological explanations that facilitate and impede their cooperation and innovation. This study therefore believes that social relationships amongst technologists themselves play an imperative role in the development and production of a particular technological artefact. To prove this, this study has chosen to study the technologists who are app developers that are housed at iCB. Thus, in connection to this study, this chapter will explore on the topic of informality and the effect that it has on the social relations, cooperation and innovation of the iCB incubatees.

6.2 Key arguments

In relation to the previously mentioned research question as well as the recurrent traits found in the findings of this study, I will highlight that some of the conditions that foster cooperation and innovation amongst the iCB incubatees are accrued within the realm of informality. I will use organisational studies explanations to clarify my point but at most I will utilise the sociological perspective of symbolic interactionism to support my arguments.

The key argument in this chapter will focus on how informality is a socially constructed phenomenon, i.e. it is deliberately exercised to achieve particular aims. The key arguments will follow the following sequence; firstly, the iCB incubatees advance themselves through informal means – by making up their own self-image, creating their own working space, and shaping their own cooperation. Secondly, the iCB being a formal public institution allows such informal means to happen as a form of control. Thus, although findings from the study show that the incubatees resented any form of formality but in actual it was partly the iCB that “provides the very framework that makes those action possible” (Dingwall, 2015: 28). Thirdly, informal interactions play a vital condition that fosters cooperation and innovation both in and outside the iCB through the three realms of social interaction namely, encounter, exchange and pure relationship.

Before I move further into the analysis of the findings of this study, I will begin the following section with a brief discussion on the meaning of informality and its usage

in this chapter as well as on particular issues that I find relevant to answer the first research question of this study.

6.3 Informality

Following Goffman, Misztal (2000) defines informality as “a form of interaction among partners engaging in dialogue, the rules of which are not predesigned, and enjoying relative freedom in the interpretation of their roles’ requirements” (Ibid, 2000: 46; Ibid, 2015: 106). She also suggests that informality being a “mundane” term, encompasses into our casual daily situations and actions which benefit us through its convenient usage in order to explain almost everything, even down to “new trends and fashion” (Ibid: 17-18). This also includes, as was emphasised in her definition on informality, our style of interactions and conversations such as “small talk, gossip, unrestricted expressions of emotions and the indeterminacy of exchange” (Ibid: 18). In addition, Misztal indicates that informality as frequently presented in sociological texts, is normally associated with “intimate, face-to-face relationships” which represents “interpersonal, less routine, less rigid and less ceremonial relationships, which rely on tacit knowledge”, in contrast to the formal prescribed regulations within social organizations which are subject to ‘precise procedures’ and ‘organized sanctions’ (Ibid: 18-19). Informality therefore is “a relaxed, casual or non-ceremonial approach to conformity”, or simply “actions taking place behind the official scene” (Ibid: 17-18). All in all, informality according to Misztal (2015) is “situations with a wider scope of choices of behaviour where, in order to make the most of the possibilities in given circumstances or to reach “a working understanding” (Ibid: 106).

The practice of informality, despite it being regularly labelled as “deviant” and “betraying normative assumptions” (Groenewald, 2015: 59) is heightened due to “the digitalisation and the growing complexity of the globalised world” thus further blurring the boundaries between the private and public life which in turn leads to “a more informal, not role-bound and role obedient conduct” (Misztal, 2015: 109). As a consequence of the increasing uses of informality, Misztal (2015) argues that it leads to “collusions, breaching rules, and... malfunctioning” of “governance mechanism”

(Ibid: 110). Simultaneously, the practice of the formalisation of formality could also be used as “a strategy of control” (Ibid) where “people are expected to be more reflexive, responsible, self-controlled, and to practice self-regulation and self-monitoring” (Archer (2010) in Misztal, 2015: 111).

As this study is primarily concerned about a set of people (the incubatees) and a government owned institution, i.e. the iCB, thus, it is imperative to have a clear idea on the link between institution, individuals and informality. The general agreement deemed institution as an important aspect because every single institution has its own “norm and set of norms that have significant impact on the behaviour of individuals” (North, 1990: 3). Institutions therefore have the capacity to restrict individual’s behaviour (Peter 1999) by which “those who do not follow the rules have a guilty conscience, and deviations from the rules are sanctioned by an internal mechanism” (Lauth, 2015: 155). External mechanisms might also follow, for example, “social discrimination or exclusion, loss of status, arrest...” and so on (Ibid). Institutions therefore have a great influence on the behaviour of individuals. This is due to the ‘internalizations of norms’ which occurs during ‘processes of primary or secondary socialization’ (Lauth, 2015: 154-155). This in turn according to March and Olsen (2006), supports the creation of “elements of order and predictability” (Ibid: 4). In addition to that, Lauth posited that institutions enable interactions between individuals and groups which “foster stability by creating known and accepted behavioural structures” (Ibid: 156). According to Lauth (2015), there are two distinctive types of institution, the formal and the informal ones. Informal institutions are those that are “not formally codified in official documents (in constitutions and laws)” (Ibid: 156). Formal institutions, otherwise, are those inversed which includes “all private contracts or rules of association that are protected by the state” (Ibid). Since the iCB is a Brunei government initiative under the flagship of Brunei Economic Development Board (BEDB), thus in this regard, it is considered as a formal institution.

Corresponding to the discussion so far, Misztal (2000) suggests that in order to understand the factors that influence people’s behaviour, there is a need to examine their way of interactions (Ibid: 69). She further describes that these examinations

should be made on ‘specific characteristics of three realms of interaction’, namely, ‘encounters, exchange and pure relationships’. The three realms of interaction according to Misyta (2000) “are inclusive in their character, with encounters being the most general, the broadest and the most elementary one, while pure relationships denote the smallest but the more inclusive domain of the two others” (ibid). Moreover, she also points out that:

These three realms of interaction differ in terms of the nature of interaction between partners, in terms of the framework of the interaction and in terms of actors’ mutual influence. Hence, they can be described according to their respective levels of impersonality, emotional commitment, disclosure of private emotions, voluntary sharing of private knowledge and warmth in dealing with others, their degree of institutionalization and according to the strategies of their respective actors (ibid).

Having elaborated some of the pertinent issues of informality that I will be using in my succeeding discussion and arguments, I will contextualised the meaning of informality within this study as those incorporating the “sociology of culture”, “sociology of organisation”, and “sociology of work” (Mica et al., 2015: 9). Thus, the meaning of informality in this study will refer to ‘any form of casual daily situations and actions that benefit people in formal institutions through its convenient usage’. In addition, this study also agrees with Misyta’s (2000, 2015) definition of informality and will use it as guidance in writing this chapter.

To start, I will begin by discussing the first finding of this study, which is about how informality at the workplace influences cooperation and innovation at iCB.

6.3.1 Informality and workplace culture

Data examine in this study shows that the incubatees placed strong views towards having informality at work. With that said, there is ample data derived from the fieldwork to show that the incubatees disapproved any form of formality that could affect their workplace culture¹⁶. For example, this could be seen from the excerpt below that exemplified an incubatee's firm reaction against formality at work and vice versa:

"We don't have to be so serious, that's what I like, like we don't have to be formal to each other, most of the time. We know when to do it but most of the time yeah it's mostly swear words flying around and not being formal, that's what I like. I don't know sometimes I snapped... Well, when Mark (a colleague) asked all of us to wear formal attire, I was like, "Are you kidding me? Why would we want to wear formal shirt? Do we have to step up so that we could look cool, something like that?" [Interviewer: What was that about?] Well, what I meant, yesterday there was a television interview for a Korean broadcasting channel, and Mark was asking all of us to wear formal attire with neckties, etc. I don't like it. I was like, "Is that really what you want to show?" That's not really us!" I mean look at what we wear every day, to change that for one day just for the broadcasting channel, I think that's just not right." (i6, Male, Co-Founder/Graphic designer)

From the excerpt above, it is evident that informal conducts amongst the incubatees are the most preferred way of behaving towards each other. Informal conducts in this case includes behaviour and interaction. When it comes to their interaction style, the excerpt suggests that the incubatees tend to interact casually amongst themselves. Ordinary conversations, as suggested by Boden and Zimmerman (1991), are part of 'naturally occurring conversation' that is essential to produce other forms

¹⁶ The meaning of workplace culture in this study follows the definition of ERC Consulting, which is a consulting company based in Northeast Ohio with expertise in human resources and management. According to ERC, workplace culture is defined as the character and personality of an organisation in which it is distinctive to a particular organisation. In one hand, the workplace culture assimilates the values, traditions, beliefs, interactions, behaviours, and attitudes of an organisation that may affect the overall performance of the latter. On the other hand, a multitude of different factors influence the development of workplace culture namely, leadership; management; workplace practices; policies and philosophies; people; mission, vision, and values; work environment; and communications.

of interaction (Ibid: 18). The use of 'swear words' indicates other form of interaction, which in this circumstance signifies a co-present interaction where both informality and intimacy occurs together (Misztal, 2000: 132). This sort of informal and intimate interactions as Goffman (1956) suggested indicates the attempt of people to project their own true selves. In addition, the act of swearing in their casual interactions also signifies a symbolic and meaningful act amongst the incubatees, which according to Giddens (1984) connotes a secondary meaning (Ibid: 88). Thus, in this case, swearing is seen as a form of informal interaction that is "face-to-face, intimate, private, less rigid, less controlled interactions" (Misztal, 2015: 106), which has its own functionality and necessary across varieties of tasks (Misztal, 2000: 132). However, most importantly, the informality of the nature of such interactions or in this context, the swearing, has the "potential to draw individuals deeper into relationships with one another and thereby offer a fuller sense of individual recognition and trust" (Ibid, 2000: 1).

Further analysis of the above excerpt also suggests that there was a strong reaction against an attempt to impose some sort of formality within the team of incubatees. This was explicitly shown through an episode where a colleague calls for a change from the daily informal dress code to a formal one to cater for media coverage. In this context, the question is not about the request made but on applying Goffman's idea of co-presence where the close proximity and the interactions of the incubatees has intertwined them together and so are their very behaviours which also become conditioned by each other. Thus, the remarks made by the incubatee in the excerpt, "That's not really us!" indicates that the incubatees see informality as an inherent part of them. These sorts of behaviour are interlocked between them due to the close proximity that they have, as Goffman (1967) stated:

"By virtue of being in a social situation that is itself lodged within a social occasion, individuals modify their conduct in many normatively guided ways. The persons present to one another are thus transformed from a mere aggregate into a little society, a little group, a little deposit of social organization." (Ibid: 243).

Informality, therefore, is not merely physical doings but is actually communicative and transpired through interaction rituals: “the fact that when persons are present to one another they can function not merely as physical instruments but also as communicative ones” (Ibid: 23). Furthermore, another incubatee exemplified that:

“One should be free, well, basically no one should feel they have to do something. That's why we don't have a dress code at the office. If they [the team] want to come to the office in their shorts, we allow them although iCentre doesn't allow shorts. If they want to come to the office in their sneakers or their sandals, go ahead, whatever you want to dress, as long as they are no official guests or any official event. I think the fact that we are not putting a structure to curb the expressing of our ideas, that we are not overly formal, makes it easier for us to innovate.” (i9, Male, Technical officer)

Informality in this context is symbolically exemplified through the co-presence of individual incubatees within their respective teams. The co-presence as Goffman postulate requires individuals to oblige with specific rules that adhere to the teams' requirement, “the rule obliging participants to ‘fit in’ (Goffman, 1967: 11). Informality in this case was symbolically expressed in the form of dressing code against, what was mentioned in the excerpt, the iCB that act as the agent of formality. Equally, the choice to dress casually is symbolically seen by the incubatees as a way to project the preference of informality within their work culture. Formality, as was implied in the excerpt, is therefore only reserved in special situation where the co-presence of guests may require the incubatees to present themselves a bodily different manner. As Giddens posited, “[F]or the body operates, and is understood as a ‘body’ by its owner, only in the contextualities of action” (Ibid, 1984: 66). The concept of co-presence following Goffman's (1967) and Giddens's (1984) usage “is anchored in the perceptual and communicative modalities of the body” (Giddens, 1984: 67). The fact that the incubatees presented themselves daily at work in casual dress code is symbolically done to show others that they require freedom to freely express themselves as a way to be able to generate more innovative ideas in their work, or in Goffman's termed “the full conditions of co-presence” (Ibid, 1963: 17). Thus, in this situation, the image that the incubatees try to project is not solely for the sake of constructing an image or expression of themselves but also to seek others

acknowledgment so that in a way “they are close enough to be perceived in whatever they are doing” (Ibid, 1972: 1).

In addition, further analysis of the above excerpt also produces several important points. Firstly, the iCB is a government-owned institution, a place that the incubatees see as their workplace and where they meet with each other daily. Simply put, it is a place where interactions amongst the incubatees take place. Thus, as Giddens (1984) posited following Goffman (1967), “[A]ll social interaction is situated interaction- situated in space and time” (Giddens, 1984: 86). The iCB in this case could therefore be considered as a place for a situated interaction, a gathering as Goffman (1963) calls it: “any set of two or more individuals whose members include all and only those who are at the moment in one another’s immediate presence” (Ibid: 18). Gatherings as Giddens (1984) conceives, “presume the mutual reflective monitoring of conduct in and through co-presence. The contextuality of gatherings is vital, in a very intimate and integral fashion, to such processes of monitoring” (Ibid: 71). Informality in the form of conducts and interactions therefore take place amongst the incubatees at the iCentre, or what Goffman (1967) termed as ‘a situation’, that is, “the full spatial environment anywhere within which an entering person becomes a member of the gathering” (Ibid: 18). Thus, the iCB is a physical space where gathering of the incubatees takes place, with or without other people, in which interactions took place in informal manner. It is through these informal interactions that ideas are born, that is, ideas that generate innovation.

Secondly, it can be deduced that the iCB incubatees consider their outlook appearance at work as a crucial aspect that portrays their role at iCB. Being housed at a formal institution, the incubatees as informed are very casual in their dress code. Myszta (2000) illustrates on the character of Mr Zebner, a young lawyer in a novel by Anita Brookner in which he adorned a casual style outfit hence simultaneously allowing him to behave more informally than any other day (Ibid: 18). Equally, for the iCB incubatees, to dress in casual attire is not only seen as being relax and informal within the formal settings of iCB but also allows them to distinct themselves uniquely from the iCB officials or incoming visitors. By putting themselves in a ‘different category’ of people at iCB, the incubatees would be able to play their

respective role, perhaps the role that are expected from them, that is, as innovators of apps. As in Goffman's dramaturgical and analogies, the presentation of informality by the incubatees through wearing casual clothing, be it shorts and shirts and sandals, act as "cueing devices for opening and closing" (Giddens, 1984: 73) of their roles. What this means is that by projecting an informal image would invite others to treat them more in a more casual manner, for example, to start a conversation by acting casually and not restricted by the formality of the iCB. Thus, by projecting a casual image the incubatees are able to shape how others think about them and how to behave towards them. By having an informal conversation that is not tied with the formality of the iCB, the incubatees could then foster rapport with others which also could help to develop cooperation and the sharing of ideas to facilitate innovation. Serpe and Stryker (2011) exemplified the previous point in the following texts:

"Very similar ideas exist in symbolic interactionist accounts of how persons entering a new group without information about one another organize themselves to deal with problems that bring them together. To interact effectively, they attach meaning to the interaction by specifying who they and others are, and what the situation of interaction is. Without prior experience with or information about one another, they use cues in early interaction and cultural cues that attach meanings to appearance, dress, speech patterns, and style of early participation to define the situation and organize their behaviour. They then behave toward one another in ways reflecting these definitions. Since the meanings of the cues tend to be widely shared in a culture, initial behaviors based on the cues also tend to draw confirming and reinforcing responses, solidifying structures implicit in the meanings of the cues." (Ibid: 239)

Thirdly, a study about informal and formal dress also reveals that casual dress tends to improve morale, benefited employees and increase productivity (Sebastain and Bristow 2008: 196). Thus, corresponding with Cooley's (1902) concept of the looking

glass self, and the impact of such personal view on individual self-esteem of the incubatees, it could be assumed that the action by the incubatees to 'informalize' themselves is an attempt to improve the morale of their respective teams and would boost their self-esteem and their positive attitude towards their work. Simply put, the incubatees informal clothing sense at work helps to inspire their innovative sides as well as heightened their spirit of perseverance, both which are fundamental within the incubatees' line of work.

Corresponding with Misztal (2000) perspective on the definition of informality which incorporates interaction, non-pre-designed rules and freedom in role-playing, it could be seen that a way for the incubatees to come up with innovative ideas was through informal means of 'playing', 'having fun' and "engaging with dialogues" (Misztal, 2000: 46; Misztal, 2015: 106). The following excerpt illustrates on the manner in which the incubatees derived their innovative ideas:

"We are always relaxed because, you see, if we overthink it then we are over-killing it. If we are not overthinking about it, it is just going to go, "Oh wait, I got an idea!". And we had that so many times. We just stop working and play games or watch videos. We paused, "Oh, I got an idea!". And that happens more." (i4, Male, Multimedia officer)

According to Judkins (2015), being playful is crucial as it could help generate ideas. In fact, he further argued that children tends to be more creative due to their playfulness and adults are lacking such creativity because they fear "being wrong, judged, or laughed at" (Ibid: 91-93). Thus, formal ways of doing work that are more goals oriented, systematic, and bound by organisational rules and policies are deliberately rejected by the iCB incubatees in favour of a more informal approach. By taking such informal approach into their scheme of work, the incubatees are making distinction that they do not belong to the typical public servants even though they are housed at a government-owned institution. Moreover, coming back to Goffman's concepts of gathering and co-presence, it could be seen that the incubatees' activities of playing games and watching videos together as a team help

to facilitate social interactions¹⁷ and foster social relations¹⁸ within the incubatees' respective teams. Giddens (1984) postulates that both social interactions and social relations are important as 'building blocks' to social integration¹⁹ (Ibid: 89). Thus, it could be seen here that the incubatees' incorporation of interactions, non-pre-designed rules and freedom in role-playing facilitated the exchange of thoughts between them and at the same time help to generate innovative ideas.

Another important finding in this study that relates to informality is on the association that the incubatees made between innovativeness and their workplace. The incubatees perceived the iCB as a venerable space, which in many ways influence their work culture, particularly on their interactions with their co-workers, their behaviour as well as their work performance as a whole. This is exemplified in the following excerpts:

"When we were setting up the office it was bland, it was just white. You know, with the tables. I said, "Do you guys want bubble heads, comic books, posters, what do you want?" And they said, "I want that poster, I want this toy". So, I brought it all to the office and they decorated their tables and everything. That's why it has such a youth felt to it and even we scribbled on the windows, just for fun, just to get it out there. So, that really drives innovation. That's innovation itself. For me it is." (i9, Male, Technical officer)

"My company has a company culture set by me, the way that I work, the hours that I choose, so I give people flexible hours and deadlines. Flexi hours doesn't mean that you work less, it means you work more just in a place you feel comfortable. But then what I do is that I make the office such a comfortable place, so they choose to work there. So, they're there by choice. Add simple things like lightings, music and the environment, posters, potted plants, sofas and food. You let people bring in their own decorations. You make it feel like

¹⁷ Social interaction is referred by Giddens (1984) as "encounters in which individuals engage in situations of co-presence" (Ibid: 89).

¹⁸ Giddens (1984) suggest that social relations are significant in the structuring of social interaction and it is also the 'main building blocks' that shape institutions (Ibid: 89).

¹⁹ Giddens (1984) defines social integration as "reciprocity between actors in contexts of co-presence" (Ibid: 28).

the office at the iCentre or wherever we had our office feels like their bedroom.” (i7, Female, Founder)

From the interview excerpts above, it could be seen that the action taken by the incubatees to personalise their workspaces is an attempt to ‘informalise’ their work settings. Moreover, as I regularly visited the iCB during my fieldwork, I could not help to notice the sheer differences between the offices of the officials and the incubatees. Like in many public institutions in Brunei, the officials’ offices at iCB are reasonably formal – with typical office layout – where office cubicles were in used. This is very much in contrast with the incubatees’ offices, which were more of an open space where every incubatee’s table were positioned to face each other and their personal objects cluttering on their tables. Organizational studies on the impact of office layout on productivity, such as by Haynes (2008) illuminates on the closer link that productivity has with working environment. His findings revealed that “components that relate to how well the office occupiers connect with each other” (such as the position of the tables) allows the increase in interactions and led to a positive impact on the workers’ productivity (Haynes, 2008: 179). In addition, as projected by the excerpt above, apart from given the flexibility to work from anywhere, the incubatees’ action of ‘personalising’ their offices was aimed to build a comfortable working environment as well as to ensure that they would do their work together in one place. Haynes (2008) categorised such kind of group as ‘transactional knowledge worker’, which he defines as “occupiers that spend more than 60 per cent of their time with colleagues and have a high-very high degree of flexibility to work where and how they wish” (Ibid: 189). By creating such working environment, Haynes points out that it “enables the social dynamic of interaction, thereby facilitating the creation, and transference, of knowledge” (Ibid: 193). Therefore, by having such an informal workplace benefits the incubatees in two ways. Firstly, it fosters cooperation amongst the incubatees, and secondly, it bolsters their innovativeness and hence, their apps innovation.

Symbolic interactionists however have different approaches when it comes to defining physical space. Goffman (1967) stressed that physical space is an integral part of social phenomena; it is the ‘situation’ of co-presence. Simply put, it is the

setting of the gathering. The incubatees use the term 'office' to refer to the place where they gather and do their work. The 'office' is therefore a place where the incubatees exercise their daily routines, in which such conducts according to Giddens (1984) are "fundamental to even the most elaborate forms of societal organization" (Ibid: 64). Equally, the incubatees' offices are also the places where "individuals encounter each other in situated context of interaction – interaction with others who are physically co-present" (Ibid). Moreover, the office is also a venue where the incubatees are in proximity with each other. In other words, it is where most of the face to face interactions amongst the incubatees took place. According to Misztal (2000), proximity allows the gathering of both substantive and nuanced information through the monitoring of others' behaviour and the observation of body language (Ibid: 132) and most significantly, it gave opportunities for individuals to "display commitment and to detect a lack of it in others" (Boden and Molotch, 1994: 264). Thus, proximity in specific ways allows for 'mutual informal control', 'maintain social order', 'maximize social solidarity' and "enhances the mutual co-ordination of interaction through tact and respect for the needs and demands of others; an essential factor in sustaining trust, cooperation and solidarity" (Misztal, 2000: 132). By modifying their workplace to suit their own personal taste within the walls of a formal institution, the incubatees are again trying to distinguish themselves differently within the context of the environment they were in. Moreover, by personalising their workplace shows that the incubatees are exercising their own autonomy and self-control. Accordingly, such actions help to thrive better "working understanding" (Goffman, 1983: 9), as well as fostering the incubatees innovativeness by which they are able "to make the most of the possibilities in given circumstances" (Misztal, 2000: 41). On a different note, it is also evident that physical input at workplaces has a significant impact on productivity (Roethlisberger and Dickson, 1939). In addition, a study by Haynes (2007) on the relationship between work output and office environment proves that there is a high coherency between "work processes, work environment and increased office productivity" (Haynes, 2007: 460). Thus, as a whole, it could be seen in the context of the incubatees that

by having a workplace that display informality helps to nurture both cooperation and innovation amongst the incubatees.

Despite the informal arrangements and conducts of the iCB incubatees, further examination of data gathered in this study shows that the incubatees' actions are fully endorsed by the iCB officials. In other words, the iCB officials were fully aware that the incubatees were keen on practising informality in their daily routine at the iCB. These 'endorsement' are evident in the following interview excerpts derived from two iCB officials:

To be honest, I think a lot of the work that gets done in iCentre with the incubatees, it has to be somewhat informal because some of them are very creative, they are very innovative, so they don't work well when you put them in a formal setting, you know, it's too rigid. (i15, Female, Manager)

We have open door policy, so we like to keep it informal here at the iCentre and that is important I think to nurture them [incubatees] and for them to feel comfortable to talk to the iCentre people. Moreover, this is the practise in all incubators in the region and overseas as well. So, we avoid of trying to be too serious in the sense and too corporate. If you go anywhere in the world even as close as Jakarta, in most incubators everyone is relaxed, there are no ties, its jeans and t-shirt and everyone are willing to help each other. That is the ecosystem we like to create here. So, we like founders to talk with other founders and for them to walk together, potentially work together in the creation of new ideas or also sometimes to help fill in the gaps. There are some cases where we had an incubatee saying "I'm not quite sure what I do with this thing." And one other incubatee saying "Look, I can develop the back and technical side to it" and there is profit sharing between the two of them. (i13, Male, Manager)

From the interview excerpts above, it could be highlighted here that the iCB officials' action was deemed to provide the incubatees with a working place that could spur informality. Knowing that the iCB is a formal institution, the iCB officials allows the incubatees to practice informality on the ground that such practice would increase

interactions amongst the incubatees. As a formal institution, the iCB cannot be commended for such actions itself. In fact, symbolic interactionist like Blumer (1969) has long argued that “the organization of a human society is the framework inside of which social action takes place and is not the determinant of that action” (Ibid: 87). Thus, actions and changes within organisation are accounted on the acting units and how “they act toward situations” (Ibid: 87-88). Thus, from the excerpt, it is evident that the iCB officials have learned of the situations in other incubation centres and therefore have decided to apply and practise the same ecosystem at the iCB. Further analysis of the first excerpt also shows that officials at the iCB are aware that the incubatees work performances would be affected if the rules of formality (of the iCB) are to be followed rigidly. Thus, the iCB officials tried to replicate situations of other incubation centres by altering their own actions at iCB, i.e. by not being ‘too serious’ or ‘too corporate’. Moreover, to achieve the ‘relax’ situation, they also tend to allow the incubatees to wear casually despite knowing that such act is against the regulations at iCB. The rules were however put aside by the officials as they see that by having formal rules always in place might jeopardises the performances of the incubatees and inhibit them from cooperating or helping each other. Moreover, by allowing the incubatees to dress casually serves two functions, firstly, to support the ‘relax’ ecosystem that the officials wanted to project in the situation of iCB. Secondly, the casual clothing performs a symbolic act of ‘informalness’ where informality is acknowledged as daily social and work routines at iCB. Both functions however serve one purpose that is to shape the situations at iCB. In other words, the iCB serves as a place that “shapes situations in which people act, and to the extent to which it supplies fixed sets of symbols which people use in interpreting their situations” (Blumer 1969: 88).

On another point, Misztal (2015) postulates that measures to informalise structure and practises by organisations are actually done on the basis of “strategy control” (Ibid: 110). She suggests that practises like “informal Fridays” in workplaces (Ibid 2000: 63), is a pretext for the use of “informalisation tactics to ensure or even intensify control” (Ibid: 110). It could therefore be argued, based on Misztal’s point that the informality at iCB also serves as a strategy to control the incubatees’ action.

In other words, by having informality in the workplace will allow the officials to create an ecosystem or a situation which would increase cooperation amongst the incubatees. Thus, from the second excerpt above it is evident that the informal situation has brought the incubatees together in cooperation and innovation. Moreover, it could also be seen that the informal situation has helped to regulate the actions of the incubatees towards other incubatees as well as within their respective teams. Therefore, as Blumer noted that, “one should bear in mind that the most important element confronting an acting unit in situations is the actions of other acting units” (Blumer 1969: 88).

To sum up, the incubatees perceived informal conducts and informal working environment as conditions that foster their innovation. It could be argued that the incubatees perceive informality as a form of ‘freedom of expression’ where to have “complete freedom” is essential to spur creativity (Judkins 2015: 272). Such freedom of expression was made apparent from the way the incubatees dress themselves to how they personally organise and decorate their workplaces. The iCB being a formal institution has endorsed these forms of informality as it believes by doing so will facilitate cooperation and innovation amongst the incubatees. Thus, it could be seen that informality is being used to nurture cooperation and innovation rather than being used as a form of control on the incubatees. As we will see in the next discussion, informality will continue to play a vital role in spurring innovation through the medium of interactions.

6.3.2 Informality and social interaction / situational interaction

Social interaction plays an important role in fostering both cooperation and innovation amongst the incubatees at iCB. Through interactions, the incubatees are able to express and exchange their thoughts with their fellow incubatees. Equally, interactions could also help to foster mutual understandings and facilitate better cooperation within their respective teams. Interactions however are not limited between the incubatees themselves. The incubatees were also regularly in contact with the iCB officials to seek for the latter’s advices and thoughts about their work. Moreover, it was the responsibility of the officials to look after the incubatees in

terms of giving them assistance and guidance in many important aspects, particularly on matters involving management such as business, financial, marketing and so on. Thus, interactions between the incubatees and the officials could be considered as a formal relation where the officials' action are tailored and tied to the rules and regulations of the iCB. However, as mentioned previously, the iCB officials were accounted for the informality that happened at the iCB. Therefore, even though there are some formalities that need to be followed, the iCB officials have allowed the incubatees to practice many forms of informalities, such as flexible working hours, re-designing their offices, and coming to work in casual outfit. Through this 'creation' of informal situation, the officials hoped that it will spur interactions between the incubatees themselves. Similarly, the iCB officials also took a very active role in ensuring that the incubatees are well alert of new ideas that emerged in the tech-world. Often ideas are shared between the officials and the incubatees through scheduled brainstorming session or termed at iCB as 'ideation session'. Nevertheless, as the iCB officials often cross-path with the incubatees, unscheduled brainstorming sessions will usually took place spontaneously and informally. The following interview excerpts from two iCB officials illustrate the way interactions with the incubatees took place:

If they are free then we'll have brainstorming session but usually most of these guys have their products already and they will come and talk to me, "Hey, I want to launch my products, what are your thoughts, how should we launch this?" So, we'll have an informal talk on how to do this. As you know with my previous job background, I look at it differently where every day to me is an ideation brainstorming session.
(i16, Female, Incubation officer)

So, we [the officials and the incubatees] can just be having a chat in the lobby and say "Did you hear about this idea, this, this and this? Have you tried putting it in your product?" And then we will walk away and sometimes they may come to me and say "Hey, I have added that feature! It does work!" I said "Great!" So, for me I always brainstorm with these guys wherever I see them. So, I don't like to set a specific

brainstorming session, for me when you are talking you are already brainstorming. (i12, Male, Manager)

So, usually when we have meetings with our incubatees, it's usually quite relaxed. We usually told them, "Hey, it will be very informal", although there are minutes and all. Even our relationship with them is also quite informal. For example, our chairman, he will come here and have breakfast with the incubatees at the restaurant below because we want to have that kind of rapport with them. You know, it's not that we tell them what to do and they have to do it. It's more like, "Okay you tell us where you want to go and let's see how we can help". (i15, Female, Manager)

Sometimes if you come here on certain days, you will see most of the founders, they are not actually in their office. They are outside talking to other founders or working on their business at '*Kopitiam*' [a café at iCentre]. So, that's what I mean, we don't like to get it fixed in the sense where it must be in the office space to do your work. Sometimes to be creative as they would say, 'think outside the box' but here we like to say, 'build the box'. Those are the things that we sort of try to initiate for them [the incubatees] to be creative and to be inspired. Once you are inspired, you will be able to come up with new ideas or ideas to enhance the features in your products. (i13, Male, Manager)

Analysis of the above excerpts insinuates three important points. Firstly, it is evident that interactions took place within the informal settings of the iCB, such as the lobby, the café or even at the restaurant; places that are often referred to as 'hotbeds of informal activities' (Adriaenssens, et al., 2015: 90). It is clear that the background of these places was quite informal when compared to other venues that are located within the iCB building, for example, meeting rooms or officials' offices which have more formal outlook and feel. These physical settings therefore facilitate in shaping the nature of the situation. In other words, these spaces are inherent part of the 'social phenomena' that help shape the nature of interactions that took place. Thus, it is evident that interactions between the officials and the incubatees were done in a spontaneous manner, a sign that the co-presence behaviour was a reflection of the informality of the settings. It could also be seen that interactions between the

officials and the incubatees occurred more often within informal situations. These interactions as shown in the excerpts involved some form of exchange of cooperation (information and idea sharing) that facilitates the incubatees to come up with more and better innovation.

Secondly, the situation where these interactions occurred was face-to-face which allows for better cooperation between the incubatees and the iCB officials. On the one hand, Misztal (2000) posited that face-to-face interaction is considered to be a preferred way of informal communication because it reduces the risk of uncooperative behaviour and simultaneously it also creates better trust between people (Ibid: 1). Moreover, as the incubatees' teams are on a tight budget due to their financial constraints, thus, to have access to valuable information through "face-to-face is the best and a relatively inexpensive way of gathering such information" (Ibid: 3). On the other hand, Goffman (1956) includes face-to-face interaction as an integral part of 'social encounter'. Social encounter as he simply puts it is "an occasion of face-to-face interaction, beginning when individuals recognize that they have moved into one another's immediate presence and ending by an appreciated withdrawal from mutual participation." (Ibid: 265). From the excerpts, it could be seen that the informality of the situation has created a situation where both the incubatees and the iCB officials upon encountering each other, greeted, interacted and ended their conversation very casually. Moreover, information or ideas are also exchanged quickly, and messages are conveyed clearly. As Nohria and Eccles (1992) postulate that the vital role of face-to-face communication is to establish and maintain effective interaction (Ibid: 299). Moreover, according to Reid (1977), along with the exchange of information, a one-to-one negotiation also helps to boost the confidence level of the participants. To be able to say 'yes' or 'no' about whether something will work or not and to clearly express their ideas certainly could help the incubatees in pushing their innovation knowledge. Thus, through social encounters, it builds the confidence level of the incubatees and simultaneously enhances and solidifies their innovation on their work.

Thirdly, it is evident that the informal situation opens the door for interactions to take place easily between the incubatees and the iCB officials. Despite this positive circumstance, it could be argued that the situation also puts the incubatees in a 'discomfiture' and 'uneasiness' position (Goffman, 1956b: 265). In other words, given that the informal situation allows the frequent interactions between the incubatees and the officials to happen, thus the incubatees had to always be ready with updates about their work as well as to come up with good ideas on innovation. Failure to do so could highly cause embarrassment on the part of the incubatees and as Goffman (1956b) points out that "if the individual for whom embarrassment is felt happens to be perceived as a responsible representative of some faction or subgroup ... then the members of this faction are likely to feel embarrassed and to feel it for themselves" (Ibid). In other words, the pressure to perform will certainly fall on the incubatees that hold important positions within their own respective team (for example, as a Founder or Co-Founder). Although this might create some form of pressure to the incubatees, however, a close examination of the excerpt shows that the situation is more accommodating than it seems. The informality of the situation has allowed the incubatees to discuss about their work and ideas with the iCB officials and simultaneously asked for the latter's help on what can be done to accomplish those ideas. Thus, rather than the encounter being seen as a 'displeasure and discomfiture' which "is considered evidence of weakness, inferiority, low status, moral guilt, defeat, and other unenviable attributes" (Ibid: 266), the informality of the iCB situation tend to enhance cooperation between the incubatees and the iCB officials.

6.3.3 Situational interaction outside the iCB

As mentioned in Chapter 2 of this study, the incubatees were also given opportunity to make visits abroad as a part of their incubation programme at iCB. The incubatees were brought or sent for exposure trips to attend conferences, exhibitions, or visiting other innovation places such as the Silicon Valley in the US. The purpose of these short trips was primarily to give exposure to the incubatees so that they could personally interact with other successful innovators as well as pitch their apps to potential angel investors.

To examine the incubatees' experiences are deemed important in this study because it brings us back to the main key arguments of this chapter that is to understand how informality facilitates in enhancing cooperation. Thus, apart from analysing the interactions of the incubatees within the vicinity of the iCB, is also equally important to examine those interactions which were outside iCB in order to prove that informality has a significant role in fostering cooperation on the part of the incubatees. It is worth mentioning here that there is ample data derived from the fieldwork interviews to show that informality of interactions plays a profound role in facilitating cooperation between the incubatees and their foreign counterparts. This is evident from the following three interview excerpts with the iCB incubatees:

We met the Angry Birds developers at the 2nd Tokyo Game show. I asked them if their company, the Revio Company, actually provide funding. You know, because they were also start-ups and they kind of know the struggle and everything. It was really a very good chat and meeting and they gave us a lot of tips about the game trends right now, about how doing puzzle games will gain us more revenue and they teach us how to solve the 'games' as well. (i7, Female, Founder)

When we were at Tokyo Game Show, we were approached by Capcom, the big game company, and we had discussion to publish our game under them. They (Capcom) advised us to actually not do a complete proto-type of a game because they will want to do a trial and error first. For Capcom they just need a functional game and a story line, with a good graphic, that's it. After that if they said okay, then we will do more. (i6, Male, Founder)

If you sell a new app game, people have to know. So, you have to make it free first and let people download and play it. It's like a trial. We took that advice from 'King'. King is the company that develop the game app, 'Candy Crush'. So, we met them. They are selling their games differently because they are more towards an in-app purchase kind of game where you could just purchase bonus features in the game but the game itself is free to download. So, they taught us about selling our games like in-app purchase and allowing people to advertise in our games as well. And if people don't

like to see the adverts, they could just buy the premier version. They (King) also advise us to be clever about what we are actually selling at the in-app shop and how to make the game so addictive and make people want to buy. That's what they told us. (i7, Female, Founder)

Analyses of the above excerpts insinuate several important points. Firstly, it is evident that the concept of co-presence could be applied in defining the context of the interactions. Thus, Goffman's co-presence concept which is consolidated by the three frameworks of 'social gathering', 'social situation' and social occasion' may well be illustrated in the first two excerpts. The first excerpt however is an excellent example to illustrate this. To begin with, it could be seen that the meeting between the incubatee and the foreign app developers is a 'social gathering' that is a situation "when two or more persons find themselves in one another's immediate presence" (Smith, 2006: 36). By committing themselves into the gathering, all the attendees are making themselves 'available' to the 'monitoring' of his or her conduct by others who are present (Giddens, 1984: 71). Thus, behaviours are regulated according to the 'social situation' which "arises when two or more people find themselves in each other's physical presence, thereby allowing mutual monitoring of one another; it ends when the next-to-last participant leaves" (Smith, 2006: 36). Both social gathering and social situation occurs in a 'social occasion' which is "whatever it is that has brought together this group of people to this particular time and place" (Ibid), i.e. in this context, the social occasion is the Tokyo Game Show. The question now is; how then does informality come into this discussion? By carefully analysing the situation of the interactions in the excerpt together with the three co-presence frameworks, it could be proven that the meeting had happened in an informal situation. This can be proven through two important points. Firstly, according to Goffman (1956a), a social gathering allows individuals to acquire information and to bring into play information about others, in which the acquired information could be of practical values (Ibid: 1). Thus, Goffman (1956a) posited "information about the individual helps to define the situation, enabling others to know in advance what he will expect of them and what they may expect of him" (Ibid). It could therefore be assumed that prior to the meeting both the incubatees and their foreign

counterparts may already have some basic background information regarding each other's firm profile. Thus, being in the situation of co-presence adds additional information and regulates the conduct of both sides. Moreover, since the meeting was between professional app developers and novice app developers (iCB incubatees), thus, as Goffman (1956a) highlighted the significance of past experiences in shaping the situation is therefore crucial. In this instance, it could be assumed that since the professionals are prominent app developers who have experiences of meetings with novice app developers, thus the way the meeting was conducted was more like a consultation session. In other words, the situation of the meeting was very much informal. Thus, the incubatee mentioned the word 'chat' and they were given 'tips' and 'advices' and they were 'taught' on how to do things and what they should do and what they should not do. All of these prove that the situation was informal. Thus, as Goffman (1956a) stated, information gained from both co-presence and past experiences 'helps to define the situation' (Ibid: 1).

Secondly, the excerpts above also showcase a kind of informal interaction that Misztal (2000) terms as 'social exchange' which is mainly concerned with interactional exchanges between partners that helps to open up "opportunity to negotiate their particular expectations about what inputs and returns are relevant as well as their timetables and nature" (Ibid: 80). Social exchange also holds the principle where one person does another a favour with a general expectation that the favour will be returned in future, although when and how it will be returned is not clearly specified (Blau, 1964: 93). Thus, somehow social exchange helps to foster "the creation of feelings that can result in an atmosphere of reciprocity and mutual obligation" (Misztal, 2000; 80). According to Misztal (2000) negotiations of social exchange could take place within three forms, namely, clientelism, sociability, and bureaucratic exchange. Here in relation to the excerpts above, we will be concerned only with sociability, which literally means, "the quality of liking to meet and spend time with other people" (Cambridge Dictionary, 2019). In other words, sociability is characterised with friendly gestures and courteous manners that helps to contribute to collaboration and integration of society and most importantly, it promotes "the informal exchange of information... and facilitates innovations and new ideas"

(Misztal, 2000: 83). Apart from that, sociability also enables “a style of exchange which comes close to balancing informality and formality of relations” that is “instrumental as well as non-instrumental means of motivating people” (Ibid: 80-81). Thus, as can be seen from the excerpts, it is evident that conversations took place in the context of ‘sociability’, where valuable information in the form of ‘tips’ and ‘advices’ was freely exchanged or conveyed by the prominent apps developers as a token of friendly gestures to the iCB incubatees. It is also evident from the excerpts that the interactions have helped to facilitate in the creation of new ideas and innovation as stated by Misztal (2000) earlier.

Thirdly, in connection to the above point on ‘sociability’, it is evident from all the excerpts above that the positive outcomes of the meetings were the product of effective interactions between the iCB incubatees and the professional app developers. It could be deduced that these positive outcomes were the result of effective projection of the ‘definition of the situation’ by both the professional app developers and the iCB incubatees (Goffman, 1956: 3). Goffman (1963) uses the term ‘performance’ to simplify such projection, which he defines as “all the activity of a given participant on a given occasion which serves to influence in any way any of the other participants” (Ibid: 8). In other words, the ‘definition of situation’ is significantly influenced by the individual concerned through his or her act of manner and expression in order to evoke from those who are present a specific response he or she wants to obtain (Ibid: 3). Simultaneously, Goffman (1956a) also postulates that when an individual projects a definition of a situation, it will lead others to “effectively project a definition of the situation by virtue of their response to the individual and by virtue of any lines of action they initiate to him” (Ibid, 3). Therefore, Goffman (1963) postulates that the real reason for taking up a ‘performance’ is for all participants to contribute to ‘a single overall definition of the situation’ in order to reach a ‘working consensus’ (Ibid: 3-4). Thus, it is not unforeseen that the projection of manner or expression during meeting of new acquaintances is usually met with courteous conduct, smiling expression and handshake gestures. Evidently, it is quite obvious in the excerpts that the professional app developers and the iCB incubatees has managed to “effectively projected a given definition of the situation”,

i.e. 'sociability' (being friendly towards each other), and simultaneously reach a working consensus together. This is clearly evident from the style of interactions as well as the outcomes of the meetings, whereby the incubatees were able to acquire valuable information as well as dealing for future collaborations with the professional app developers. Thus, it can be said that informality plays a significant condition in shaping the style of interactions between the iCB incubatees and their foreign counterparts that leads to positive outcomes in developing new ideas, innovation, and future collaborations.

Lastly, it can be seen that the exposure trips experience has allowed the incubatees to connect to professional and well-known app developers. In other words, the incubatees are able to expand their social networks of contacts. Even though the meetings were quite brief, it forged a no least important social network ties, or what is dubbed by Granovetter (1973) as 'weak ties'. Simply defined, weak ties are "relationships that are infrequent, less close and less intimate, but for that very reason very important" (Kadushin 2012: 42). Granovetter (1983) put great emphasis on weak ties and asserts that individuals that lack weak ties will be "deprived of information from distant parts of the social system and will be confined to the provincial news and views of their close friends" and "will not only insulate them from the latest ideas and fashions but may put them in a disadvantaged position in the labour market" (Ibid: 202). In addition, as a consequence of lacking weak ties, Granovetter also postulates that "new ideas will spread slowly, scientific endeavours will be handicapped, and subgroups separated by race, ethnicity, geography, or other characteristics will have difficulty reaching a *modus vivendi*" (Ibid). Thus, in addition to strong ties (i.e. social network at home ground), by having weak social network ties in their social network of contacts have in some way benefited the incubatees like obtaining useful information in the future. It could be said that the informal interactions i.e. encounters, that transpired between the iCB incubatees and the distant apps developers has enabled 'weak ties' to take place and in turn benefitted the incubatees specifically on developing their creativity, new ideas as well as facilitating their apps innovation.

6.3.4 Informality and Emotion

It cannot be denied that emotion plays a significant role in the creation of new innovation. According to Gruber (1989), a creator takes into consideration of his or her emotions, aesthetic feelings, and social awareness as part of his creative personality in producing his creation (Ibid: 5). Moreover, it is an utmost interest for the creator to be “in good touch with the norms and feelings of some others so that the product will be one that they can assimilate and enjoy” (Ibid: 14). In addition, emotions are often tied with those people who are close to our heart, such as our family and close friends. To be co-identified and share similar values with such individuals are deemed as an important source of motivation (Misztal, 2000: 70). Interactions therefore play an important constitutive element in tightening the bonds of emotions between individuals that frequently took place in “voluntary and spontaneous sharing of personal information between partners, friends or lovers” (Ibid). Thus, it could be said that both emotions and interactions are inseparable entities that in many ways helps to foster the process of developing new ideas, to be more creative as well as innovative.

It can be seen that emotion is closely knitted to a personal type of interaction, or what Misztal (2000) dubbed as a ‘pure relationship’ style of interaction. This refers to a type of interaction within “social situations where others are close and familiar individuals (e.g. friends) with whom spontaneous, individualized and emotionally responsive communication is established” (Ibid: 70). Moreover, interactions in pure relationships are “essentially expressions of individuality and freedom” and characterised by “close association, privileged knowledge, deep knowing and understanding, sharing, commitment and some kind of love” (Misztal, 2000: 97). Thus, it can be said that interactions in pure relationship are often bind by “individualised norms and rules” and is highly informal in many ways. In relation to this study, there is sufficient evidence of data to show that the style of interactions within the iCB teams of incubatees in many ways are shaped and influenced by emotions of individual team members. Hence, their style of interactions is inclusive within the ‘pure relationship’ style of interaction. This is evident from the following excerpts by several iCB incubatees:

I feel that right now I have the best team. That's what I feel honestly. Through my years of experience, the team that I have right now is the most that I'm satisfied with. To me they are more than just my team they are actually my family. So, that for me is a little bit of pressure having that kind of emotional feeling for them, I guess. You know like, you want to make sure they got their salary on time. You have to make sure you don't overstep what they are doing, and you want to make sure they feel happy, all those things. I'm very lucky. (i1, Male, Founder)

The thing with the current company it's really unique. In a sense that, we we're kind of close like a family, like brothers in arms, which was totally unexpected from my end. Probably we are of the same age maybe. Probably we have the same kind of mind, I mean the way that we think around things is the same and we kind of give and take, we pull and push, you know. (i11, Male, IT programmer)

They are like family. They are like children to me. I care about their welfare. We are pretty warm. Nobody should ever call me a boss. We are colleagues in this. And I tell them whenever we start, I always tell them, "We are all part of the same car, we are all part of the same engine. The fact that I'm the CEO only means that I'm the noisiest part of the engine. I do all the talking. So, I'm just the exhaust pipe. You guys are the engine, you got to do that stuff". That's how they should see it. (i5, Male, Founder)

I would say we are like family, like brothers. That's how I felt about them (teammates). It is like, 'they got my back and I got their back'. (i9. Male, Technical officer)

Analysis of the above excerpt implicates several important points. Firstly, in connection with Mead's theoretical perspective "that the human being has a self" (in Blumer, 1969: 79). According to Mead all "human being can be the object of his own actions" (Ibid), for example, by showing the feeling of angry to his own self, argues and rebuffs with himself, or bolstering his own courage, setting his own goals, making compromises with his own self, as well as planning on his own action (Ibid). Thus, Mead was poised that everyone interacts with his or her own self and emotions. Such

view was reaffirmed by Blumer (1969) who stated that, “to recognize that the human being can act toward himself is no mystical conjuration” (Ibid: 79). Thus, in relation to all the interview excerpts above, it is evident that the individual-self of the iCB incubatees together with their emotions play a significant role in shaping and influencing their conduct and interactions towards their own respective team members. Mead regards this self-interaction ability as “the central mechanism with which human being faces and deals with his world...[and]... enables the human being to make indications to himself of things in his surroundings and thus to guide his action by what he notes” (in Blumer, 1969: 80). For instance, in the first excerpt it is evident that the founder’s decision to not overstep on his fellow incubatees conduct was strongly influenced by his own self-emotion. This signifies another two fundamental analyses. Firstly, it could be deduced that the realm of informality is not limited to external situations to the individual, but it also covers within one-self through the individual’s emotional means of pure relationship. Secondly, interactions in pure relationship situation could play a crucial role in influencing the decisions of an individual on others. Thus, from all the excerpts above, some decisions taken relating to pure relationship can be identified, such as ‘to make sure they feel happy’, the ‘give and take’, to ‘care about their welfare’, and ‘they got my back and I got their back’. These all indicates the informality of the situations in relation to the pure relationship situation.

Secondly, the ‘self-mechanism’ also “involved in interpreting the actions of others” in which “the action has this or that meaning or character” (Blumer, 1969: 80). In other words, the action is all about ‘making indications’ (Ibid). Thus, Blumer postulates that, “to indicate something is to extricate it from its setting, to hold it apart, to give it a meaning or, in Mead’s language, to make it into an object” (Ibid). The ‘object’ is extrinsic to the individual where “its character or meaning is conferred on it by the individual... a product of the individual’s disposition to act instead of being an antecedent stimulus which evokes the act” (Ibid). Thus, it could be considered here that emotion is an object that is extrinsic to the individual, since the meanings that characterise different types of emotions are conferred by the individuals. As Blumer simply states, “the proper picture is that he constructs his

objects on the basis of his on-going activity” (Ibid). Therefore, in examining the excerpts, it shows that the action of the incubatees was a result of ‘self-indication’, which is “a moving communicative process in which the individual notes things, assesses them, gives them a meaning, and decides to act on the basis of the meaning” (Ibid: 81). In other words, it is a process where “the human individual pieces together and guides his action by taking account of different things and interpreting their significance for his prospective action” (Blumer, 1969: 81). Therefore, it can be deduced here that pure relationships together with the emotions involved amongst the iCB incubatees and their respective team members are the product of self-indication. To make it clear, the prolong exposure to interactions amongst the iCB incubatees and their teammates has led to the process of self-indication, which eventually has shaped their style of interaction, i.e. the pure relationship style of interaction. As mentioned by an incubatee in the second interview excerpt above, factors like age, views and thoughts are crucial in shaping the ‘family’ feelings that the incubatees feel towards their respective team members. Therefore, it could be seen that, the emotions of the incubatees “is constructed or built up instead of being a mere release” (Ibid). In other words, the emotions involved were an outcome of a ‘moving communicative process’ of interpretations and meanings (Ibid), a central process in symbolic interactionism perspective (Ibid: 84).

Thirdly, analysis on the excerpts above shows that the self-indication process led to the creation of symbolic meanings which the incubatees used as the basis of their actions. As mentioned before, emotion is seen as an object that is given meanings. Thus, the perspective of symbolic interaction adheres to the interpretation rules where “the individual is designating different objects to himself, giving them meaning, judging their suitability to his action, and making decisions on the basis of the judgment” (Blumer, 1996: 80). In other words, the interpretation or acting is made on ‘the basis of symbols’ (Ibid). Examining all the excerpts above, it is clear that the incubatees use symbols to describe the type of connections that they have with their respective team members. Thus, the use of the term ‘family’, ‘brothers’, ‘brothers in arm’ and ‘children’ symbolises the type of relationships that they have

forged with each other. Moreover, the symbols also determine the action as well as the style of interaction that the incubatees had with each other, which is based on informality and pure relationship respectively. This is very much evident from the two excerpts of interviews illustrated below:

Because we are close friends we tend to chat a lot and share jokes with each other. We also tend to come up with crazy ideas and that was fun. Even for this upcoming Ignite [an IT competition], the idea came from us joking and eventually we came up with this crazy idea and we thought, "Hey, why not put this in for Ignite?" It was the joking as well as being crazy that makes our team strong. I mean, it will be embarrassing to talk about something crazy if I don't know them well. But we have known each other very well and it diminishes that awkward boundary. (i3, Male, Co-Founder)

I think all of us have the 'same' head. I mean like we share the same crazy ideas and that make us bond together, like every time a person say something, everyone goes, "Woo...We can add this, we can add that", something like that. That actually makes us close, we are just crazy with ideas and stuff. So, I think, that's probably what makes us stick together. Even our CEO he's like... he's just crazy, overflown with ideas. (i11, Male, Graphic Designer)

Analysing the above excerpts, it can be seen that the symbolic meanings that the incubatees put on their team members has influenced and shaped their style of interactions and action towards each other. It is evident that the communication style is more flexible and informal in many ways. Moreover, having close relationship with each other also has allowed them to be more expressive in voicing out their ideas, particularly those relating to innovation. Being able to voice their ideas without being subjected to awkwardness or embarrassment has helped them to become more creative as well as more innovative in their work. Equally, it could also be argued that the close interpersonal relationship has also provide some form of emotional enjoyment and loving towards their job, thus avoiding 'attention scatters' and 'disengagements' in their daily routine (Goleman, 2013: 23). In addition, since many studies (Cooper, 2008; Ojha and Holmes, 2010; Vinton, 1989), have shown that

engaging in humour has a positive impact of “easing social interactions and maintaining an effective informal working environment” within small firms (Mallett & Wapshott, 2014: 123), thus having a pure relationship form of interaction has certainly nourish cooperation amongst the incubatees and in turn help to foster their innovation.

To sum up, pure relationship interactions amongst the incubatees and their respective team members have without doubt brought positive influence on their overall working performance. Having good and close relationship with their own teammates has definitely aid the incubatees to cooperate better as well as provide them with the much-needed support (physical and moral), motivation and companions. Despite the views that characterised the study of pure relationship as ‘pointless’, ‘without merit’ and ‘can be taken for granted’ (Misztal, 2000: 96), it is evident that intimacy has played a significant role in increasing cooperation and fostering innovation the context of the incubatees at the iCB.

6.4 Summary

The relevance of informality as the most important condition that helps to foster the innovation of apps has been analysed in this chapter. The analysis of the findings shows that informality plays crucial roles in two areas that are deemed important to the incubatees, namely, in their working environment, and in their social relationships with their respective team members. In regard to the working environment, the analysis shows interesting findings where the incubatees are expressing their freedom through personal means, namely, their casual dressing styles, and the arrangements of their workspaces. While for the social relations, it was evident that the incubatees’ styles of interactions are very much informal and also unique. It could be argued that both areas influence the incubatees in different ways but as a whole the two areas contributes quite extensively in increasing cooperation and fostering innovations amongst the incubatees.

CHAPTER 7: FINDINGS – THE EXPERIENCE OF TRUST

7.1 Introduction

The significance of trust in reinforcing cooperation and as a lubricant of cooperation has been broadly discussed in the literature chapter (chapter 4) of this study. Trust, as was discussed, is an essential, effective and cost-saving method of obtaining cooperation. Preliminary analysis of this study has shown that the incubatees at iCB put great emphasis on securing effective cooperation within their own respective teams not only for the sake of their teams' survival but also to increase both innovation and the overall productivity of their respective teams.

The aim of this chapter is to present the findings of this study in relation to the significance of trust in securing cooperation within the teams of incubatees at iCB. For the purpose of writing this chapter, qualitative data derived from fieldwork interviews with the incubatees and the officials at iCB were examined and analysed. Apart from that, the content of this chapter will also incorporate some carefully selected literature discussion on trust and other related topics that are deemed relevant with the findings and analysis of this study. In addition, this chapter will also examine the consequences that incubatee teams had to incur when trust has gone.

In-order to give a clear, as well as comprehensive and flowing discussion, this chapter will be divided into several sections. Section 7.2.1 will be a discussion on social capital and trust that I accept as the primary condition that supports the whole idea of trust amongst all the teams of incubatees; Section 7.3 examines the first finding of this chapter, 'The Entrance phase'. Section 7.4 is a prelude section on Brunei Values and Trust. This will help to understand the next section, that is, section 7.5 which is the discussion on 'The Maintenance phase' and Section 7.6 which is the discussion on the 'Exit phase'. The last section, Section 7.7 is the summary of this chapter.

7.2 Key arguments

Based on the data collected in this study, I will argue that the building and experience of trust within the teams of incubatees is a unique process by which the process itself is strongly influenced and shaped by the norms and values practised by Brunei society. In other meaning, the perception of trust within the incubatees is as a result of 'generalized trust', i.e. the influence from their upbringing (Durlauf & Fafchamps, 2004; Platteau 1994).

The above key argument will accordingly aid in the understanding of the process of trust building which should be defined in its own particular context, in this case; novel app developers and their respective teams within a state-led incubation enterprise in a country that generally practices Asian values, and more specifically Brunei Malay values (as discussed in Chapter 2). Based on the acquired data, I will postulate that the process of trust building and its maintenance within the respective teams of incubatees is a process negotiated through mutual agreements of shared values and principles. I will incorporate two perspectives to further and substantiate the discussion. Firstly, I will include the symbolic interactionism theory to argue on the formation and the building of trust amongst the incubatees. Secondly, I will postulate that trust within the respective teams of incubatees is maintained and secured through two distinctive conditions, i.e. homophily and passion.

The discussion of the findings in this chapter is illustrated through Figure 3. The findings, to be specific, will be about the trust experience of the incubatees and this trust experience will be divided into three phases. The first is the entrance phase that marks the beginning of the trust experience. The second is the maintenance phase, which is about the working experience that the incubatees had with their own teammates. Thirdly is the exit phase, which is about some accounts of the incubatees' experience of losing several of their team members.

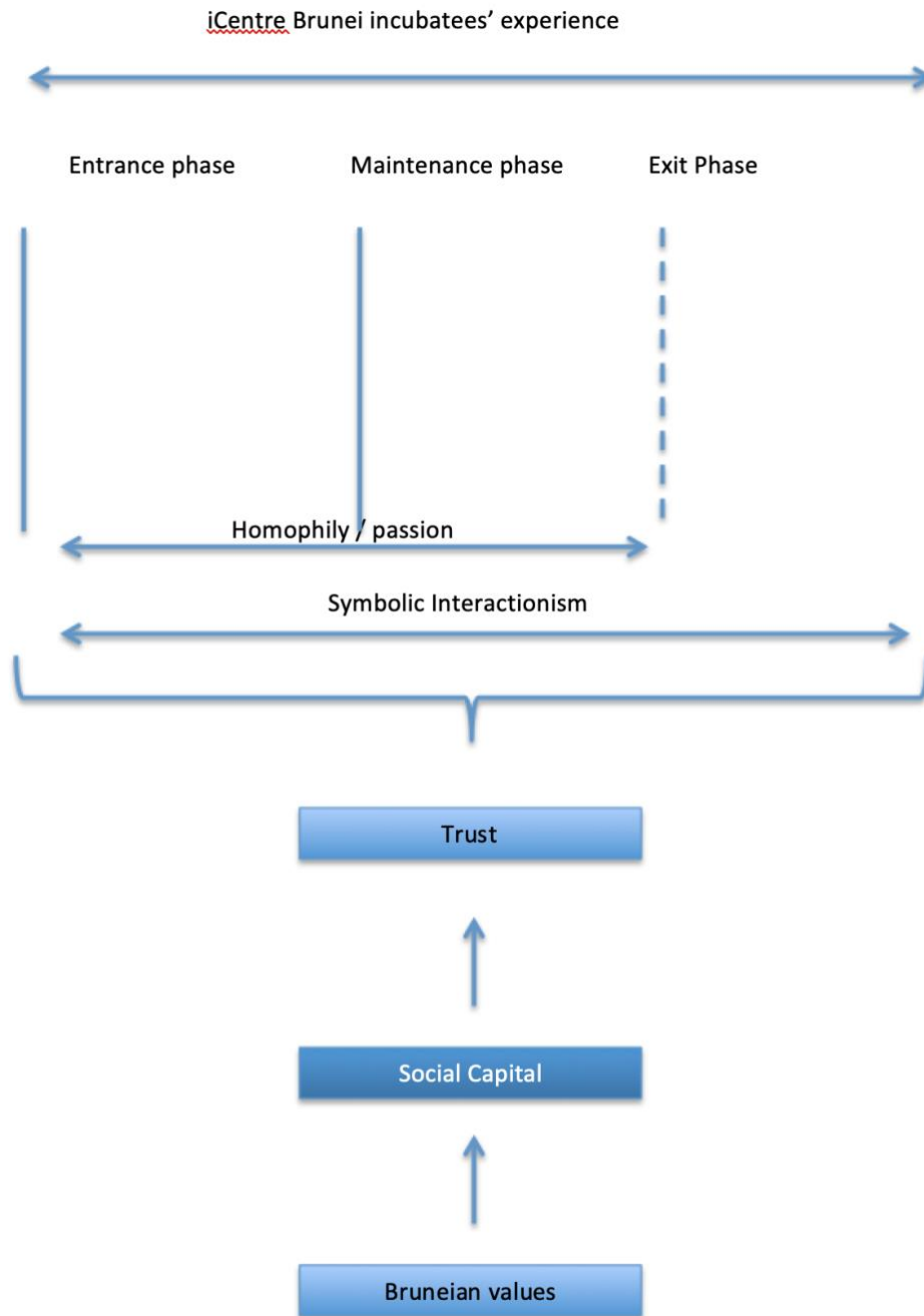


Figure 3. The incubatees experience is illustrated by this figure and is divided into three stages, namely, Entrance phase, Maintenance phase, and Exit phase.

7.2.1 Social Capital & Trust

Despite the huge literature written on social capital, it can be argued that the definition of social capital has remained elusive (Durlauf & Fafchamps, 2004: 3). This is due to the usage of the concept of social capital which varies across many

disciplines as well as from many forms of perspectives. Nonetheless, according to Durlauf & Fafchamps (2004), it was the absence of a definite definition that “no social science has managed to impose a definition of the term that captures what different researchers mean by it...” that has led to the success of social capital as a widely used concept in modern social science research (Ibid).

There have been many definitions of social capital suggested by experts in the field in connection to its purpose. The general agreement about the use of social capital is greatly highlighted on its most integral component, i.e. social networks. The impact of social networks for the common good for many people and society has been widely researched across many disciplines such as economics, business and management studies, and no less in sociology. Other researches in social networks include social networks in the form of a specific continuum, such as the *guanxi* that are widely practiced in Chinese society, as well as studies on the *ren* that revolves around Confucian teachings and principal (Kidd and Richter, 2004: 13-14). With all these vast grounds and complexity in hand, it could be assumed that the topic of social capital is a case of a longwinded discussion (and arguments) amongst many scholars in the field of social sciences. One way to settle this confusion is by anchoring the definition within the context of a specific study. Therefore, in relation to this research which is about teams of incubatees within an organisational context, the definition of social capital will be enclosed within the concept of trust and cooperation. In addition, one should also keep in mind that the use of the term ‘social capital’ in this study also refers to the triadic relationship of trust, norms and social network. In order to deliver a clear explanation about such relationship, I will begin by presenting a general discussion on social capital based on the views of several well-known experts in the subject. It will then be followed by a discussion of social capital in relation to the topic of trust which is the main theme for this chapter.

I will begin with the definition of social capital given by Coleman (1990) who basically defines social capital as a constituent of social organisation that aid facilitates the achievement of goals without incurring any or much cost (Coleman, 1990: 304). Putnam, *et al* (1993) seems to agree with Coleman’s statement but he improvises the definition of social capital by putting more emphasis on the role of ‘trust, norms,

and networks' as vital components that help to foster efficiency within society (Putnam et al., 1993: 167). He further argues that social capital is made up of "connections among individuals" that practises the norms of reciprocity and trustworthiness (Putnam, 2000: 19). These connections of individuals could be based both on social as well as professional ties (McEvily & Zaheer, 2004: 209). Thus, the influence of social capital goes beyond the informal settings but also within formal ones. Equally, Fukuyama (1997) points out that social capital is about "a certain set of informal rules or norms shared among members of a group that permits cooperation among them" (Fukuyama, 1997: 378). These set of informal rules and norms, according to Fukuyama, should consist of "truth-telling, the meeting of obligations, and reciprocity" (Ibid: 379). On a different sentiment, Bowles and Gintis (2002) argue that social capital entails for one's willingness to adhere with the norms within a community and to expect punishment if one's failed to do so (Bowles & Gintis, 2002: 2).

From all the various definitions and perspectives above, it can clearly be deduced that social capital (inclusive of trust) entails cooperation based on the norms and values within the context of a social organisation or a community (As presented in Figure 4). Moreover, the presence of social capital, as emphasised in its definition by many experts in the field, tend to strongly suggest that "its presence is equated with beneficial consequences" (Durlauf & Fafchamps, 2004: 5). According to Lin (2001), the benefits of social capital are embedded within social networks and could be fully accessed and utilised by interested parties concerned (Lin, 2001: 24-25). When it comes to the analysis of the data of this study, it shows that social capital (together with trust) has a positive and great impact on the teams of incubatees, particularly in the early stage of composing and selecting their team members. This is because social capital provides some sort of assurance to team founders that their selection of new members is made based on their social network recommendations. I will touch more on this matter in part 4, the 'entrance stage'.

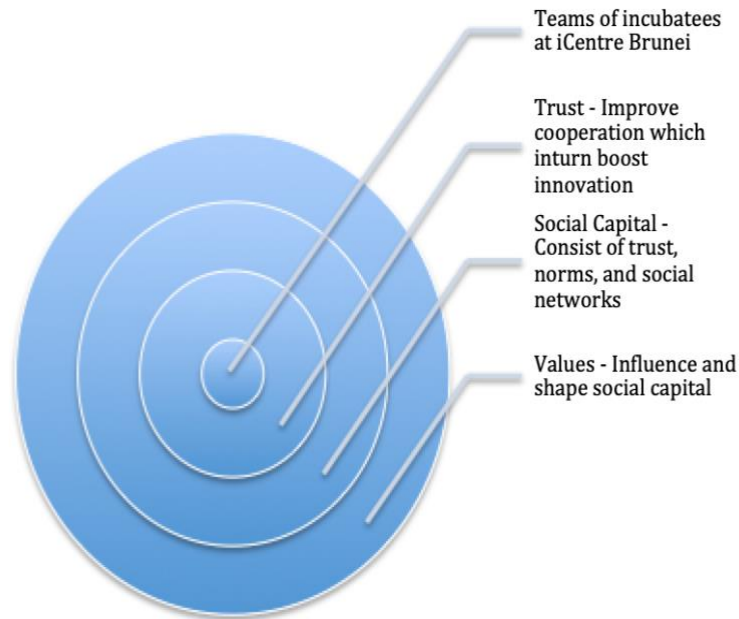


Figure 4: The relationship of values, social capital and trust in this study is illustrated by this figure. Values shape social capital which in turn influences the nature of trust. Trust is the mechanism that secures cooperation and in turn enhances innovation within teams of incubatees.

7.3 The building of Trust within teams of incubatees – the Entrance phase

The analysis of fieldwork data in this study has shown that trust act as a fundamental condition that supports cooperation, collaboration and innovation within each incubation group. In fact, most incubation group founders relate the importance of trust in building the membership of their respective teams. For every founder, the task of looking for ideal team members is a very crucial task. The survival of their own incubation team is put at risk if they fail to acquire team members who are not willing to share the ups and downs of the team. Furthermore, due to the restricted amount of funds available for each team member, each founder has to be entirely certain with his or her choice in bringing in new members into their team.

Therefore, the task of setting-up their respective teams began with the founders seeking for potential co-founders who are willing to share the burden of forming a team. Moreover, the existence of the co-founders is vital to the survival of each

incubation team, not only because of their talents and capabilities but also because of their background profiles which would help to push the incubation teams' reputation, particularly in relation to IT (information technology) and apps development. Moreover, co-founders are not only chosen because of their in-depth knowledge in IT but every so often the real reason lies on the level of a personal connection that the founders have with the co-founders. Thus, for example, most team founders are usually close friends with their co-founders who they have met when they were students at university. When asked why they chose their close friends to start their own incubation team, most of the founders attributed their decision due to the trust that they have in the respective individuals, particularly since they have known them for several years when they were studying together at university. Moreover, the years of studying together also allows them to interact as well as collaborate together, for example, in doing their assignments and projects. From there, they learned not only about the person's capability but also on his or her characters, for example, on their personalities, or on their working capabilities; whether he or she is a group-oriented person, has high perseverance as well as having the knowledge that the team requires. These are clearly exemplified by some statements by the founders and co-founders:

"We have known each other from university. Even after we had our classes, we used to gather at this particular room, we called it SDP lab, and we did our stuff there like our assignments or just to gather around. So, from there we get to know each other well and our friendship bond has grown stronger since then." (i2, Male, Founder)

"Actually, most of the newcomers are people that I've known from university, like the new guy S, he's actually in our batch as well. So, he joined. And then there's B, who was my senior and I have worked with him in a campus club, a multimedia club, so nothing changed. I don't see I have to fit in that much because we knew them already." (i3, Male, Co-founder)

"G was in my class since first semester. I have worked with him at uni before and we know how well we work together, we know what to assign to each other, basically, you do this, and you do that." (i4, Male, Co-founder)

“Our friendship bond starts from ITB [a university in Brunei]. T approached me and told me his idea about this particular app and then asked me if I want to be on board. So, I agree to it because I find it interesting and because I wanted to, well, we all wanted to make change in Brunei [smiling]. So, I decided to join him and after a few days P and K, our uni colleagues joined in. Then we brought in J and M, also our friends from uni but they are into business and we knew then that we need to have a separate team to handle business, marketing, etc., so that we can focus on developing apps. From then on, everything goes really well.”
(i6, Male, Co-founder)

In analysing the excerpts above, it is evident that friendship plays an essential key for the founders to set-up their own respective teams. The selection of the co-founders was made based on two essential factors. First, it was based on the trust values (as discuss in Chapter 2). It was significantly indicated above that the founders already knew their co-founders from their years of studying together. Throughout the years, they had worked together completing their assignments and solving work projects. Evidently, their interactions throughout the years have made them knew each other’s conduct very well. Thus, going back to the discussion in Chapter 2 on Bruneian values, it could be said that the selection of the co-founders were made based on the identification of the values of trust by the founders from years of repeated interactions with the co-founders. This corresponds well with the working definition of symbolic interactionism by Carter and Fuller (2015), where symbolic interactionism “address how society is created and maintained through repeated interactions among individuals” (Ibid: 1). Their interactions had significantly produced symbolic meanings that signify the values that consolidate the notion of trust. Apart for the notion of values that has been discussed in Chapter 2, values also signifies “intrinsically desirable ends, such as loyalty, helpfulness, fairness, predictability, reliability, honesty, responsibility, integrity, competence, consistency, and openness” (Jones, and George, 1998: 532; Olson and Zanna, 1993; Rokeach, 1973). Thus, the years of interactions through “language and significant symbols” in

their interactions has forged trust which are consolidated further with their friendship.

Second, it is evident that the selections that were made by the founders were also made based on the performance that the co-founders had shown during their years of studying together. Performance, according to Goffman (1967), “serves mainly to express the characteristics of the task that is performed and not the characteristics of the performer” (Ibid: 47). In other words, Goffman postulates that the major purpose of performance by individuals is “to establish a favourable definitions of their service or product” (Ibid). Thus, it is evident that throughout their years of interactions at the university, the founders were impressed with the performance of their respective co-founders in completing assignment and tasks and this contributes to, out of many other individuals, the selection of the co-founders by the founders as part of his/her team.

In choosing other ordinary team members, the founders tend to use a different approach that they perceived as simple, timesaving and effective. Regardless, the selection of ordinary team members are also crucial as it will ensure the team will be able to cooperate effectively with each other and therefore help to foster innovation within the team. To choose the ordinary team members, the founders and co-founders practically went through their networks of relevant friends who have knowledge of potential candidates (who are looking for employment) that would suit for the job. After gaining some useful information, the founders would shortlisted potential candidates and would then make contact and set an appointment to see them where perhaps an interview will take place quite informally on a later date. It should be noted that prior to the meetings and interviews, the founders would already have in mind on some basic information on the candidate’s background as well as words of recommendations coming from their trusted friends. The interview would be quite informal with the founder and maybe one or two of his or her co-founders asking questions to the candidates. Most of the questions were usually quite subjective and were intended to find out the level of perseverance that the candidate have in coping with stress as well as challenges of the job. However, an

interview might also not be necessary if the founder and the co-founders are already acquainted with the person and they have high confidence in him/her. So, for example, as described by an incubatee on when and how he first joins his respective incubatee team:

“It was a year ago, basically, they called me up and asked me if I have a job. I told them that I don’t have one and I am waiting for the enrolment result to get into a university to continue my study. They are friends that I know from my previous university and I know most of them and we are friends, good friends. So, they called me, and I agree to join them. When I start working everything looks okay.”
(i11, Male, Incubatee)

Another incubatee described how she ended up being hired through a connection that her team founder has with her former university lecturer:

“During my final year of studying, one of my lecturers introduced me to M because M needs to finish a project. It’s kind of a free-lance project. So, that’s when I met M and we worked together with a few people to complete the project. It was at this one time that M saw one of my drawings on my laptop. He then started asking me, “Did you draw that?” and “Do you do photographic things and digital stuff?” And I answered, “Yeah, I do”. And then he looked at my work and said, “This is good, you are very good”. I think that was when he began to have interest to hire me. Not long after I graduated, I started working for him.” (i8, Female, Incubatee)

Another incubatee also shared his experience of joining his respective team:

“I was scouted because I was doing iPhone programming and the team I’m currently in now was at that time planning to expand into the iOS area. The guy who did it before me, he was kind of tied up with a lot of other things and couldn’t commit to it. So, I was in my final year of studying and then a friend of mine approached me and asked me stuff like if I’m interested to join. At that time, I was not available because I had my final year project to complete. Right after I graduated, I came back to Brunei and few days later I met the team and we discussed, and I expressed my interest in doing the job. At

that point it was a temporary job, only for a project. Since then, I've grown attached to the company and what they do. I am really impressed on their way of thinking and how the company is working and the environment, freedom especially I would say, the working mates, I kind of fit in. It just happened so fast and it happened so well. I'm blessed in that sense. Since then, I then transitioned working for that certain project to full time developer for the company.”
(i10, Male, Incubatee)

Based on the interview data analysis above, it is evident that social networking and other elements of social capital (trust, and friendships) had played a role in influencing the selection of the incubatees to become members of their respective teams. Team founders utilises elements of the social capital that are available to them. These elements in turn are shaped by the societal values (in this context, the Bruneian values), which in turn could be explained by using the symbolic interactionist approach.

7.4 Brunei values – Trust and Friendship

Analysis done on the data of this study shows that trust within friendships is imperative for the survival for all the teams of incubatees. Because most of the incubatees establish their friendships during their study at university, therefore, it is ideal for this section to talk about the subject on friendship and trust and how the two influences each other.

The role of friendship in securing trust is not something new for many social scientists. In fact, it is a well-known fact that at a younger age, many people began to nurture both friendship and their trust feeling together. Adolescents in comparison to younger children are mostly more concerned when it comes to establishing friendships with others, are much responsible on maintaining the right conduct to maintain the relationship and see both loyalty and trust as important characters that secure their friendships (Inderbitzen-Pisaruk & Foster, 1990). Moreover, friendship serves a range of important roles in an individual's development. Misztal (1996) has categorised these roles as: emotional, psychological and social development in which “friendship is an essential step in

developing not only self-esteem, but also empathy, trust, and understanding of others” (Ibid: 185). In addition, others have seen friendship in a different light where friendship serves as companionship, intimacy, support, reliable alliance, self-validation and emotional security (Mendelson and Aboud, 1999; Majors, 2012).

When it comes to the question of what friendship has to do with cooperation, Misztal (1996) points out to the essentiality for societal trust as means to develop trust in a more complex settings and to establish networks with unrestricted category of people (Misztal, 1996: 185). Societal trust develops out of interpersonal trust between persons and Misztal further argues that due to the complexity of life in modern societies, both our private and public life tend to rest upon “friendship as an informal, voluntary relationship based on trust” (Ibid). Moreover, friendship in a complex setting as in the modern societies allows for many characteristics of social relationships; flexibility, unpredictability, informality, equality, dynamic, imaginative, mutual adjustments, and understanding which “copes well with uncertainty and risk and is a source of social integration” (Ibid: 185-186). It could therefore be said that with all these positive characteristics of friendships, people could easily forged cooperation with one another if friendship is already established. Having a form of social relationship such as friendship also give the parties concerned the benefit of the doubt. As stated by White, “[I]n friendship the consciousness of the degree of uncertainty is high, yet it is accompanied by a total commitment or feeling of an absolute belief in the friend’s good will” (White, 1993: 72, as quoted in Misztal 1996: 177). Thus, it can be deduced that cooperation within friendships brought more benefits and positive outcomes than cooperation without or lack any form of friendships.

When it comes to the meaning and value of friendship within the context of the Bruneian culture, it could be seen that Bruneians stress high importance on this kind of relationship in their daily lives. In fact, according to Jukim (2014), it is not uncommon to see that the value of friendships in Bruneian society could be equal or even more treasured than those relations that one has with his or her kin or relatives. Every so often, close friends are seen as a family member and are treated as son/daughter, elder sister/brother, or younger sister/brother (Ibid: 245). For this to

happen, the concept of trust needs to be instilled within the relationship through the intertwining of various characters such as honesty, truthful, sincere and humbleness. Simultaneously, when trust is in place, one is expected to behave empathically and thoughtful in his/her actions. This is because as argued by Jukim (2014), Bruneians give utmost importance to the sensitivity of others so as to avoid hard feelings that could result in anger, hatred, vengeance, and other negative behaviours (Ibid: 242). To give an example relating to this study, a team founder states the following statement when asked about the relationships that he has with his team members:

“I feel that right now I have the best team. That's what I feel honestly. Through my years of experience, the team that I have right now is the most that I'm satisfied with. To me they are more than just my team, they are actually my family. So, that for me is a little bit of pressure having that kind of emotional feeling for them, I guess. You now, you want to make sure they got their salary on time. You have to make sure you don't overstep on what they are doing. You want to make sure they feel happy. All those things...”
(i1, Male, Founder).

The voluntary nature of friendship also allows for the development of cooperation as it gives assurance on some form of characters, namely, “honest, open, affectionate, trusting and trustworthy, sharing and helpful” (Misztal, 1996: 177). In addition, friendship also offers some form of ‘cognitive and affective support’ which are beneficial to foster cooperation (Ibid). Apart from that, a study by Hafen et al. (2011) shows that friendship tends to be homophily, that is ‘to resemble one another’. Friends therefore cooperate better as “similarity is rewarding because it fosters joint activities through which preferences are enjoyed and opinions are validated (Hafen et al., 2011: 607). Moreover, as cooperation tends to share goals, and a homophily friendship tends to share interpersonal styles, thus friends are bound to agree with each other and therefore avoids conflict (Laursen, Hartup, & Koplas, 1996). In the findings section on ‘Maintenance of trust’ I will argue that homophily in friendships in the form of ‘passion’ amongst the incubatees at iCB helps to maintain their trust and hence foster cooperation and innovation within their respective teams.

7.5 The Maintenance of Trust

Friendship as it is often claimed, is based on the sanctity of trust. Friendship was once considered as a sacred aspect in a man's life and in ancient time one was exposed to vulnerability "without recourse to persons worthy of trust" (Silver, 1989: 288). Yet, such notion is no longer applicable in the current complex nature of the modern society. "Modern man, possibly, has too much to hide to sustain a friendship in the ancient sense" as contended by Simmel (1950: 326). Face with the growing differentiation, fragmentation as well as complexity in modern social life, it has become a formidable fact that a person could friend someone but have little or no trust on that particular person. Trust in this case is therefore not necessary within the friendship but it comes in other forms such as agreements, contracts, etc. Although it could be argued that the state of such friendship is in precarious condition where it is vulnerable to a breakup and therefore one should not expect the same treatment that one will get from a friendship that is based on trust. One special nature of a trusted friendship is the similarities that friends share with each other in order to obtain stability in their friendship. This is initially achieved by choosing friends who resemble one another in terms of sex, race, and age (Misztal, 1996: 184; McPherson, Smith-Lovin, & Cook, 2001) as well as by psychological characteristics as in intelligence, attitudes, and aspirations (Richardson, 1940). As the friendship grows, friends tend to develop homophily, a term coined by Lazarsfeld and Merton (1954) that literally means to resemble one another in both attitude and behavioural sense. As Plato noted that, "similarity begets friendship" (Plato, 1967: 837). Equally, Hafen et al., (2011) asserts that "homophily helps to promote the camaraderie that is essential to building and sustaining a friendship" (Ibid: 607). It is not unusual for people to "love those who are like themselves" (Aristotle, 1934: 1371) and they also tend to abandon unrewarding friendships in favour of affiliating with partners that they share more similarities with (Poulin & Boivin, 2000). Thus, simply put, homophily does not just act as an attractor but also act as glue that binds friendships together.

In theorizing the nature of homophily, Lazarsfeld & Merton (1954) distinguished two types of homophily: *status homophily*, in which resemblance is grounded on

informal, formal, or ascribed status, and *value homophily*, which is grounded on values, attitudes, and beliefs. McPherson et al. (2001) further elevate our understanding of the term 'value homophily' which they describe as "the arena where most people spontaneously recognize that similarity breeds fellowship" (Ibid: 2001). In social psychology it has long been established that similarity in attitude, belief, and value leads to both attraction and interaction (Huston & Levinger 1978). Analysis from the data of this study shows that homophilous relationship pattern influence the aspects of attitudes, abilities, beliefs, and aspirations of the teams of incubatees.

Often friendship is associated with peer influence. Kandel (1978) argues that individuals are more likely to follow the behaviour and attitudes of those that they are closely associated with (Ibid: 427). Numerous studies also consistently agree with such findings (See for example; Berelson, et al., 1954 on political voting; Duncan, et al., 1972 on social class; Kandel 1973 on illegal drugs usage). According to Kandel (1978), homophily could take place in two types of processes: selection and socialisation (Ibid: 428). The homophily selection process happens when individuals purposefully choose their friends based on having prior awareness that they have similarity on some attributes (Ibid). Alternatively, the homophily socialisation process occurs when "individuals who associate with each other, irrespective of their prior similarity, influence one another" (Ibid).

As illustrated in Fig. 3 of this chapter, teams of incubatees at iCentre Brunei maintains their cooperation and hence their innovation by means of trust. The trust, as can be seen from previous interview excerpts, was strongly reinforced through their friendships. However, as I have explained in the earlier sections that other significant conditions such as culture, values and norms also play greater influence on the incubatees' individual and social identity. Those aspects are no less crucial in order to understand the development of the concept of trust and its implementation within the teams of incubatees. However, for the part on the maintenance of trust, I will argue that trust is maintained and acquired within each team of incubatees through the homophilous nature of their friendships, particularly focusing on their

social background, attitudes, abilities, beliefs, and aspirations of the incubatees with their teammates.

Having examined the interview data of this study, I have found that the findings of this study strongly indicate the presence of homophily in each team of incubatees. Apart from having similarities in their status homophily, namely, on their age range, sex, and social background, which are basic but important components to maintain trust, I also found out that trust is primarily reinforced through value homophily which is through 'passion'.

The importance of passion in any ventures particularly in entrepreneurial setting is very much evident. For example, Cardon, et al. (2009) describe experiencing passion as the "fire of desire" that acts as a motivation booster in individual entrepreneurs (Ibid: 515). Equally, Chen, et al. (2009) maintain that having passion benefits entrepreneurs as it encourages them to be stronger in the face of difficulties. In a study on entrepreneurial perceptions, Breugst, et al. (2012) analysis of 124 entrepreneurial employees by qualitative and survey data reveals that there is a robust correlation of entrepreneurial passion with the entrepreneurs' commitment to entrepreneurial ventures (Ibid: 171). Moreover, the study also suggests that entrepreneurial passion amongst the employees has resulted in a positive effect on their work as well as the successful achievement of their work goals (Ibid: 186). Likewise, Baum et al. (2001) and Baum and Locke (2004) also found that passion in individuals is significantly related to positive drive that is associated with venture growth. Another study by Cardon and Kirk (2015) suggested that passion acts as a mediator of self-efficacy that helped entrepreneurs to develop persistence²⁰ in the face of obstacles.

Going back to the findings of this research, most of the incubatees interviewed mentioned the word 'passion' when asked about the main reason why they are able to closely cooperate and work with members of their own team. It could be seen in

²⁰ Studies have shown that persistence is the key element in entrepreneurship (Markman, Baron, & Balkin, 2005; Wu, Matthews, & Dagher, 2007).

the case of teams of incubatees that both trust and passion are strongly associated with each other. The study of trust and its relation to passion is not a new one. For example, Misztal (1996) in her book *Trust in Modern Societies* covered a chapter to discuss about how passion plays integral roles in shaping trust amongst family and friends. However, passion in her definition is somehow different from what I will be discussing here which is more specific. Passion in the context of this research will be defined as having a strong emotional feeling and enthusiasm to be an app developer. Therefore, an incubatee is highly expected by his or her team members to always have passion in his or her work as an app developer and most importantly, to not see the job as an app developer as means to an end. In fact, for most team founders, to have team members who are passionate in developing apps is fundamental in reinforcing cooperation and innovation as well as ensuring the survival of their own teams. A co-founder shares his experience about this:

“The reason why we have been growing exponentially is because we just love doing what we do, be passionate about it [value homophily]. We're just kind of I would say lucky, and I'm kind of thankful as well, that the elements that build up the company is just so right, and we just fit in coz (sic) we're passionate about, plus we're like minded, we are the same age group [status homophily] for example, we are still different people but somehow fit the puzzle that contribute a lot on why we do what we do.” (i3, Male, Co-founder).

When asked to explain about the meaning of passion in more detail, another team founder replied by relating passion with the hope and challenges facing his own team:

“I think passion is more than just ambition, it's a dream. I think it's where you feel you are destined to be. Passion is when you don't mind working the extra hours, passion is when you don't mind not getting paid at all which I don't think I will do that [to his staff] (Chuckled). But for me, for example, if I don't get paid I would still do it. So, passion is really difficult to measure, almost impossible to measure, and really hard to find as well.” (i5, Male, Founder).

Another founder of another team responded to the same question by imposing passion as an important condition that helps to drive innovation:

“You need to be passionate. Whatever things that you do, it's really hard to be innovative if you don't have the passion in the first place. But for me, what I feel, where innovation and passionate comes they are both important, but you'll probably need one or two people who can be innovative in your team. They drive the strategy. Everyone in the team has to be passionate”. (i7, Female, Founder).

To be in a passionate team could also affect the mood of other team members in a positive way as described by an incubatee:

“If you're passionate about something and you really enjoyed doing what you love, then what's stopping you? That would make that environment lively and you just enjoyed being there, then that's the ideal environment for us.” (i9, Male, Incubatee).

Another team founder made a connection between having passion with facing challenges and perseverance:

“I think all of us in the team know that we are in the same page. This business is risky, and we have sacrificed a lot especially money. Everyone knows that what we are doing now might work or might not. But because we have the same passion, everyone wants to make this company work. There are multiple occasions where they [team members] have sacrificed their salary for the sake of keeping this company alive.” (i2, Male, Founder).

Having passion amongst members of the team is not just about enjoying work but passion also acts as a cushion to support endurance with their own team. To have passion on something means that one will go through obstacles or even hardships in order to achieve the desired goals. For the incubatees, achieving entrepreneurial success is not always smooth sailing. They realised that there are vulnerable to many risks that could threaten the survival of their own team. Thus, it could be seen that passion as a value homophily is crucial in reinforcing trust, maintaining the stability

of each team and ensuring the survival of each team. An official at the iCB summarised the importance of passion for the survival of the teams of incubatees:

“I think the biggest factor for their success is their passion, their passion to be successful, passion to create creative innovative products and their passion to contribute to society and to contribute to the diversification of the economy, that’s the success and everything else if all that is achieved will fall in place. Those are I think very important factors for your mind-set and your passion to you know in all this and all the small things like the internal, how your team works, whether there is no funding or not, if you achieve this, you are on the right path to contribute to our society in the economy.”
(i15, Female, official).

7.6 The exit phase

The data of this research shows that the number of incubatees exiting their teams was actually quite small. Interviews conducted with the iCB incubatees and officials revealed that there are only one or two occasions where incubatees left their teams due to disagreement. Most incubatees tend to stick and bond well with their respective team members and continue to go through the challenges and hardship of entrepreneurial experience with them. Analysis of the interview data also revealed that the main reason why some incubatees decided to leave their respective teams was primarily due to lack of trust in relation to funding. This was clearly explained by an official at iCB:

“As I mentioned before, the most important component of any teams or any companies is the team itself. For them to function properly they really need to trust each other. They need to know the vision of the founder because working for a start-up is actually very high risk. Rather than if I'm to work with Microsoft, if I'm to work with the public sector, I know that they have the money, I know that I will get paid every month. But working for a start-up is different. It's a whole different ball-game because they might be times where I even will not get paid at all. I mean the workers might not even get

paid at all because they are still at the early stage of the development cycle. And most of these companies work on the basis of grant money. So, there will be times when money is not coming in. That's why trust is very important. This is where the start-ups thought, "Ok fine, even though the money is not coming in at least we know where this company is headed, we trust the founder, we trust the founder to know what he's doing to the point that, are we going to be successful in 6 months' time, so are we going to be paid?". So, they are heavily reliant on the founder. If the founder does not share with them what his crucial information, when the trust breaks, people will walk away because the staff will say "There are better things to do out there, there are better opportunities out there. I shouldn't endure this any longer with this particular founder". (i12, Male, Official).

In another case, the reason for the incubatees to leave their respective teams is due to disagreement. According to an official, the reason for the disagreement is usually due to the lack of the sharing of information between the founder and his or her team members. When information was not shared, it would lead to distrust and disagreements. Thus, an official shared his experience on such situation in the following interview excerpts:

The reason for disagreements is always the lack of sharing information. It always comes up with the sharing of information. If the team didn't get enough information, that's where the trust issues will arise. This is where we at iCentre, we always encourage them... When we do get complains from the staff coming to us, "Oh you know, my founder is not being honest on this and that". So, we also try to be the peacekeeper, so we said, "Maybe it's not the intention of the founder, maybe it's just, he miss out on this". So, what we always ask him [the Founder] to do is, set up an internal meeting and workout between each other. Because sometimes it's intentional sometimes not unintentional [the lack of info sharing]. So, this is where we said that they should share the information rather than holding it to themselves. So, I will just emphasise that it's practically the dissemination and the sharing of information. (i13, male, Official]

In order to reconcile their differences, the iCB officials will play the role as 'peacekeepers' to help settle the dispute between the incubatees. Officials will usually advice the incubatees to put their disagreements behind and to look back at the reason why they have come together as a team, i.e. their passion. It could be seen here that value homophily was used to aid settle disagreements. Thus, an official exemplified their role as officials at the iCB in settling a dispute:

Ok, so what we'll do is this. Like I said, we hear both sides out. We hear both side A and Side B. For iCB we always look for people who are passionate and entrepreneurship. So, regardless who is right and who is wrong we just want to see who has the passion to pull through. So, if, side A doesn't believe in this anymore, so we go to side B and said, "Are you passionate about it?" If they are, we will continue to encourage them, and we will continue to support them. So, this is how we continue. (i17, Male, Official)

In another different case, it could be seen that a few teams of incubatees tend to lose their team members who were not with them from the beginning of their incubation journey. Because of the lack of certain expertise, most of the incubatee teams had to take in employees to help with administrative tasks such as financial auditing, programming, etc. Again, due to financial constraints, a few teams of incubatees tend to lose their employees easily. However, for incubatees who had been together with their respective teams from the beginning, they tend to have high endurance, perseverance and of all, tend to be very loyal with their respective teams. An official described her experience on this situation:

So, the incubatees here they have CEOs, CFOs, then they also have their people [employee]. A lot of the people they take in sometimes are not as passionate about the company as the CEOs or the founder because they are just employee. So, like many other companies in Brunei, these employees tend to look for government job or a more stable job. So, the turnaround for these sorts of people, when they left their job here, they affect the incubatees in terms of the cash flow, and the teams' work scopes all get reduced. And it's not like the employees gave one-month notice, it's like now they are here the next day they are gone. So, I think when they [the

incubatees' teams] lack the right people to execute then it really hinders their development. So, either they have to scale back or they have to restart... That really affects them. (i14, Female, Official).

Another team founder who has experience losing her employees explains that the reason that she lost some of her employees, regardless of how much she tried to embrace them to be part of her own team, was due to the financial constraints that her team had. Unlike her other co-founders and her original team members who stayed with her despite the financial constraints, her employees decided to quit the team. She describes her frustrations about this during an interview:

I understand that they [employees] have their own commitment and everything but when they first started with us they actually are as excited as we are which we are still right now, we are still excited about it [app developing]. But then towards the middle, they are thinking more towards the salary. You know when we don't receive the grant, the salary and everything is going to be late. We have to wait for the money, right? I cannot come up with the money myself. Actually, I prioritise my employee first. When I received the money, I pay them first. I don't actually take my own salary fully from the first day that we received the money because we need to re-invest it back to our company. But then gradually towards the end of year, it's more like them asking about the salary and sorts. Maybe they are more thinking about to just finished their job and get paid and everything. So, I have no choice but to lose them. In a way, I don't want them to think about being in this team is about getting paid and everything. Because when you're a start-up you are not going to be paid early. I don't even take my salary myself and my other foremen don't even take their salary because we have to give the money back to the company for the purpose of marketing our apps, et cetera. (i7, Female, Founder)

Based on the analysis of the interview data, it could be argued that due to the lack of trust as well as the absence of status homophily and value homophily (in the form of passion) amongst the employees has resulted in them to easily leave their respective teams. In other meaning, the lack of emotional and subjective feelings

towards the teams together with the absence of the 'Entrance phase' and 'Maintenance phase' experience' (Figure 1) means that the employees has no personal attachment to the teams of incubatees they were in, unlike the original team members who decided to stick together despite the financial difficulties they were facing.

7.7 Summary

In this chapter, we have discussed about the experience of the incubatees in relation to trust, which I have pointed out as the crucial aspect that aid facilitate cooperation and in turn foster innovation within the respective teams of incubatees. The building of trust amongst the incubatees begun as early as when they were studying together at university. However, as I have argued, trust is easily embedded in each individual incubatee because trust is already intertwined within their cultural values, to be precise, the Bruneian values. As I have explained, the building of trust within the Bruneian values can be understood by the symbolic interactionism theory, where trust is solidified through interactions between two parties whereby such process will take an extensive amount of energy and time to be reinforced. Because the incubatees were brought up with Bruneian norms and values, thus, there is some sort of mutual understanding on the meaning of trust amongst them. In other meaning, it is evident that social capital in the form of trust, values and networking amongst the incubatees are shaped by the Bruneian values which influence the organisational conduct of each teams of incubatees. Thus, for example, team founders tend to choose their team members based on the recommendations given by their trustful local counterparts. Similarly, each individual incubatees are also aware that trust is an important aspect that needs to be maintained within their teams and breaching trust may result in a devastating effect (as I have discussed in part 3 and in the 'exit phase' section).

When it comes to the discussion on the maintenance of trust amongst the teams of incubatees, I postulate that trust is not limited to the influence of social capital, but it was also highly maintained by homophily in the form of passion (i.e. app developing) within each individual incubatee. From the analysis of the interview

data, it is evident that homophily in the form of passion is responsible in maintaining trust within each team of incubatees. By having passion, incubatees tend to have high confidence in their team members and are more cooperative, motivated, and more innovative in their task.

Finally, I discussed about the 'exit phase' where I presented several cases where incubatees decided to leave their team. By examining the interview data, I argued that the decision taken by the incubatees to leave their team is due to the lack of trust particularly when it comes to monetary funding and the sharing of information. Lack of passion is also one of the reasons on why incubatees decided to leave their respective team. However, as I have mentioned, cases of incubatees leaving their own team actually hardly happened. This is due to the strong bond of trust that they have with their own team members. Unlike the case of the employees, I contend that the reason why they could easily leave their team is because they did not share any status homophily and value homophily with the original team members. In other meaning, they lack trust on the direction of the team (and the founder) as well as lack passion in what they are doing, unlike those original team members who maintained their trust and passion.

CHAPTER 8: CONCLUSION

There are three sections in this conclusion chapter. Section 8.1 reports the main findings of this research. This section will revisit the research aim and research objectives that are made clear in Chapter 1 and exemplify how they have been achieved and then answered. Section 8.2 considers the contribution of this research based on the findings of this research. Based on the findings, it could be said that the potential contribution of this research is in understanding the framework of survivability of tech start-ups company in the context of Brunei Darussalam. Section 8.3 will identify the limitations found in this research and in turn will guide the discussion on the prospect for future research in section 8.4. Section 8.5 is the bit on my final remarks.

8.1 Main Findings of the Research

In order to justify that this research has fulfilled its aim, thus it will be worthwhile to revisit both the objectives and the research questions of this research. Both have been presented in Chapter 1 of this research, the aim in section 1.4 and the objectives in section 1.5. Based on the analysis and the discussion in the two findings chapters (Chapter 6 and Chapter 7) of this research, it could be said that this research has managed to fulfil the objectives and answer the research questions.

One significant finding of this research that answer the first research question (Question 6A) is on how informality play a critical role in ensuring cooperation and innovation to occur within individual incubatees' teams. Analysis of the processed data drawn from this research using Symbolic Interactionism shows that informality influence the conduct of the incubatees as well as the conducts of the officials at iCB. As exemplified in Chapter 6, informality influence the workplace culture of the iCB incubatees by influencing their behaviour and their interaction. Thus, for example, the informal style of interaction and conduct amongst the incubatees and their team members symbolically indicates their close relationships which is vital to ensure the stability of the team as well as ensuring effective cooperation. Equally could be said

on their sense of dressing and their use of space for 'gathering'. All these informal conditions have made working life at the iCB more interesting for the incubatees and help to enhance their cooperation and innovation.

Informality is not only significant for the incubatees in their interactions, but it is also important in deriving meanings out of the objects and physical objects that are relevant to the incubatees, such as their office arrangements and personal objects that have sentimental values to them. Thus, another important findings of this research in relation to the first research question is the relevance of having personal space for the incubatees that could thrive informality and help to foster their cooperation and innovation. It is also interesting to find that the iCB is actually approving such informal conducts at iCB in order to facilitate innovation within teams of incubatees.

Apart from interacting in informal ways with their own fellow incubatees, the incubatees also tend to interact in a spontaneous and informal manner with the iCB and BEDB officials. Having no pressure to use formal style of interactions, for example, when in a supervisory meetings or when they cross-path at the lobby of iCB, has help to foster close cooperation and enhance the exchanges of ideas between the iCB incubatees and the iCB officials. Moreover, the informal style of interactions also tends to abolish the 'awkwardness' barrier between the incubatees and the iCB officials. Thus, the informality of the situation at iCB helps to foster and secure cooperation between the teams and incubatees and the iCB officials.

Another important finding in this research pertaining to the first research question is that the iCB incubatees also gained new knowledge and new ideas by interacting informally with successful foreign app developers that they met during their exposure trips. Friendly conversations that took place between the iCB incubatees and other prominent apps developers has fostered new relations that could benefit the iCB incubatees in case there are opportunities for future collaboration.

The finding also shows emotion plays a vital role in producing an informal type of pure relationships amongst the incubatees and their respective team members. Pure

relationship interactions has produced intimacy amongst the incubatees and their respective team members and this brought positive influence on their overall working performance. Having good and close relationship definitely aid the incubatees to cooperate better as well as provide them with the much-needed support (physical and moral), motivation and companions which is vital to secure cooperation and at the same time, to foster their innovation.

Pertaining to the second research question (Question 7B), the three main sections in chapter 7, namely, the entrance, the maintenance, and the exit phase are designed to answer Question 7B. The overall findings of the chapter shows that trust produced its own meanings to the incubatees, and these meanings are intertwined with values integral to the incubatees' identity.

One significant finding drawn from this research that relates to how trust is perceived, negotiated and achieved amongst the individual incubatees is the notion that trust is interweaved with the incubatees' cultural values, to be specific, the Bruneian cultural values. Because the incubatees were brought up with Bruneian norms and values, thus, there is already a sort of mutual understanding on the meaning of trust amongst them. In other meaning, social capital in the form of trust, values and networking amongst the incubatees are formed by the Bruneian values and at the same time influence the organisational conduct of each teams of incubatees. As exemplified, team founders select co-founders that were also their friends back when they were studying at university. Trust was therefore solidified by the cultural values and reinforced by their years of friendships. It could be seen that this type of friendship tend to be strongly solid and has a high degree of loyalty compared to the case of the employees that I have discussed in the 'exit' phase.

It was also found that social capital (the combinations of trust, norms, and social network) plays a significant role in the selection process of ordinary team members by the team founders or co-founders. Thus, recommendations or suggestions by their trusted friends influence their decisions in recruiting their respective team members.

Another important finding relating to trust amongst the teams of incubatees is homophily. From the analysis of the interview data, it is evident that homophily in the form of passion is responsible in maintaining trust within each team of incubatees. Homophily in the form of passion has a symbolic meaning to the incubatees where they saw their interest in developing apps as an object that binds them together. Thus, they saw this shared passion as a form of trust where they utilise it to foster their cooperation and innovation, as well as boost their confidence and overcome the difficult challenges of building apps.

8.2 Contributions of the study

There are two potential contributions of this study. The first is that this study contributes to a new understanding of SCOT specifically in analysing the relationship of producers of technology. As mentioned earlier, SCOT is frequently employed to explain the development of a specific technological artifact through the understanding of consumers-producers relationship. In this study, the producer relations with his / her fellow producers were scrutinised in order to explain their cooperative relationship that is essential in ensuring successful innovation. SCOT can therefore be an efficient tool of analysis to help explain how producers can achieve successful innovation through the understanding of the social processes of cooperation. Thus, for example, take the case of the novel start-ups that are flourishing nowadays around the world. These fresh start-ups are usually comprised of youth who have little experience in entrepreneurship. There are many constraints that are usually faced by these new start-ups for example limited capital to financially support the team, little experience in dealing with businesses, or being vulnerable to a very competitive market (like the mobile apps industry). By having team members with variations of expertise and specialisation, there is a high possibility that the start-up team will be able to overcome the challenges of entrepreneurship and achieve success. However, such team will need more than just talents, they need to cooperate with each other, supporting each other and trust each other. Thus, in relation to this, there is a potential for a theory building of SCOT, that is for the theory to be used more to explain on the social aspects of different type of producers' relationship within a different context. Equally, by examining the producers'

relationships with others, the SCOT parameter of study could be expanded to include more areas of study, like producers-investors relationship.

Second, this study contributes to the building of a new framework of understanding the survivability of tech start-ups in the Brunei context. One main finding that can be highlighted is the fact that cooperation in a Bruneian youth start-up team was very much influence by their own cultural values. Thus, for example, it can be argued that that the way the founders did the selection of their team members were based on favouritism to the verge of nepotism. However, in the Brunei context, specifically referring to this study, this is not the case. In order to ensure their own team's survival, founders and co-founders had to make decisions that are not risky. Risk in the case of the iCB incubatees need to be avoided or if it is not possible then it should be confined to minimal. Thus, by choosing their own friends or friends of friends who they can trust has assured that the risk are curb at minimal. Another finding that is also significant for the framework is on the informal interactions. It was shown that interactions amongst the incubatees and their respective team members happens mostly in the form of pure relationship interactions (as against professional or formal form of interaction) that help to foster positive influence on their cooperation and equally enhance their overall working performance. Overall, the new framework of understanding survivability in Brunei tech start-ups must include elements like friendships, trust as well as the informal form of interactions.

8.3 Limitations of the study

There are several limitations in this study. The first limitation is that the study is unable to explore in more details on cases of incubatees that failed to succeed and left the iCB before the two years period was over. This is because most of the former teams of incubatees have dispersed and when contacted many refused to talk about their previous experience. Moreover, many of them have ventured into other professions that are not related to developing mobile apps. Regardless, this opens up new opportunities to discover new grounds to explain why some teams fail to succeed. If data can be acquired from them it will be worthy to compare it with the present study to see if there are some discrepancies in the findings. It will also be

good to have a face-to-face interaction with them and hear about their experience at iCB directly from themselves rather than from others, for example, from officials of iCB. This will give a clearer picture of the reason why they have failed and decided to leave iCB.

Another limitation to the study is that the study is unable to interview a few more incubatees. There were about three incubatees that were not available to be recruited as interview informants in this study. The reasons given were mostly because they were busy with their work and other commitments. This study respects their decision to decline in participating this study. However, if there were full cooperation then this could help to enrich the present acquired data or perhaps there might be new data that are interesting.

The third limitation is that because the study focuses on group dynamics and the conditions of cooperation and innovations amongst the iCB incubatees, thus the study could benefit if there are more perspectives coming from the senior managements of the Singapore based company, i.e. the KR consulting as well as senior management teams of BEDB (as explained in Chapter 3). It was however not possible to meet or interview them because they only visit iCB every 3 to 6 months (and on tentative dates) in which the fieldwork period was unable to accommodate. If their perspectives can be acquired, then they might be able to provide some thoughts such as on management policies, and other relevant matters concerning iCB and its incubatees. The officials from KR consulting could also share their Singapore experience and which policies, procedures and regulations did they employ within the Brunei context. This would certainly help to enrich the data and possibly provide additional new perspectives to this study.

8.4 Prospects for future research

This study offers new exciting opportunities for future research. As previously mentioned, a new study on producers' relationship with others can be explored, for example, the relationship between producers and investors. Equally can be said about other type of relationship, for example, collaborations amongst different start-

ups. This could be between local start-ups or foreign start-ups. Studies can also be made on producers of different type of technologies in a different context or situation. Thus, for example, between producers that has stable finance or those who have bigger teams.

A few months after the fieldwork of this study was conducted, the iCB administration and structure was completely revamped. Currently, the iCB is administered under DARE, which stands for Darussalam Enterprise. This is Brunei's own national Small and Medium Enterprise (SME) body. Looking at the current iCB website, it could be seen that the iCB seems to offer better facilities and supports in its incubation program. Pertaining to this, there is a potential for a study to see if this new structure is better than the old one.

Another new prospect for future research arose from the existence of new start-ups that develop mobile apps but are independent from iCB. These new start-ups are privately owned and began their business in recent years. It is possible to use a case study research design to compare their case with the case of start-ups at iCB and identify the similarities and differences in their cooperation and innovation.

8.5. Final remarks

I would like to stress here that this study is an exciting one as it discovers the unique case of the iCB incubatees in the context of Brunei Darussalam. Somehow this study tends to project how today's youth in Brunei like to do their work and how they accomplish their work objectives. Certainly, it will be interesting if other future studies such as what has been proposed above can be done and to be compared with this study.

Finally, to reiterate my point, this study has answered its research questions and accomplishes its aim. I hope, at the very least, this study will encourage others to do new and more substantive research. Looking back at the rationale of doing this research, I remember telling about my curiosity on youth innovation. For certain, in this study, I have found the answers that I have been looking for.

References

- Adriaenssens S, Verhaest D, and Hendrickx J (2015) Lineland and the Underground Economy: The Multidimensionality of Informal Work by Secondary Education Students. In Mica A, Winczorek J and Wiśniewski R (eds.) *Sociologies of Formality and Informality*. Frankfurt: Peter Lang.
- AITI, Nov 29, 2013 – Brunei Darussalam won 2 Merit Awards in APICTA 2013- [Online]. Available at: <<http://www.aiti.gov.bn/news/allnews/Pages/Brunei-Darussalam-won-2-merit-awards-in-APICTA-2013.aspx>> [Accessed 9 February 2013].
- Allen JP (2003) The Evolution of New Mobile Applications: A Sociotechnical Perspective. *International Journal of Electronic Commerce*, 8 (1), 23-36.
- Amabile TM (2000) Stimulate Creativity by Fueling Passion. In Locke E (ed). *Handbook of Principle of Organizational Behavior*. Malden, MA: Blackwell.
- APICTA 2012 - APICTA Awards 2012 Awardees- [Online]. Available at: <http://www.apicta2012.com/index.php?option=com_content&view=article&id=43&Itemid=28> [Accessed 9 February 2014].
- Archer MS (2010) Routine, Reflexivity and Realism. *Sociological Theory*, 28, 272–303.
- Aristotle (1934) *Aristotle. 19, The Nicomachean Ethics*. Cambridge, Mass: Harvard University Press.
- Arksey H and Knight P (1999) *Interviewing for Social Scientists: An Introductory Resource with Examples*. London: Sage Publications.
- Atkinson P and Coffey A (2004) Analysing Documentary Realities. In Silverman D (ed.) *Qualitative Research*. London: Sage.
- Barbalet J (2009) A Characterization of Trust, and Its Consequences. *Theory and Society*, 38 (4), 367-382.
- Barbero JL, Casillas, J, Ramos A, and Guitar S (2012) Revisiting Incubation Performance: How Incubator Typology Affects Results. *Technological Forecasting & Social Change*, 79, 888–902.
- Barney JB and Hansen MH (1994) Trustworthiness As a Source of Competitive Advantage. *Strategic Management Journal*, 7, 175-90.
- Baum JR and Locke EA (2004) The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Venture Growth. *Journal of Applied Psychology*, 89(4), 587-598.

Baum JR, Locke EA, and Smith KG (2001) A Multidimensional Model of Venture Growth. *Academy of Management Journal*, 44, 292–303.

Berelson BR, Lazarsfeld PF, McPhee WN (1954) *Voting: A Study of Opinion Formation in a Presidential Campaign*. Chicago: The University of Chicago Press.

Bergek A and Norrman C (2008) Incubator Best Practice: A Framework. *Technovation* 28 (1–2): 20–28.

Bergvall-Kåreborn B and Howcroft D (2013) The Future's Bright, the Future's Mobile': A Study of Apple and Google Mobile. *Work Employment Society*, 27, 964-981.

Bijker WE (1992) The Social Construction of Fluorescent Lightning, or How an Artifact was Invented in its Diffusion Stage. In Bijker WE and Law J (eds.) *Shaping Technology, Building Society: Studies in Sociotechnical Change*. Cambridge, Mass: MIT Press.

Bijker WE, Hughes TP and Pinch T (eds.) (1987) *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*. Cambridge MA/London: MIT Press.

Bijker WE, Hughes TP and Pinch T (eds.) (2012) *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Anniversary edition). Cambridge MA/London: MIT Press.

Bijker WE and Law J (eds.) (1992) *Shaping Technology, Building Society: Studies in Sociotechnical Change*. Cambridge, Mass: MIT Press.

Blaikie N (2000) *Designing Social Research: The Logic of Anticipation*. Cambridge: Polity Press.

Blau P (1977) *Inequality and Heterogeneity: A Primitive Theory of Social Structure*. New York: Free Press.

Bloomberg LD and Volpe M (2012) *Completing Your Qualitative Dissertation*. Thousand Oaks: Sage.

Blumer H (1962) Society as Symbolic Interaction. In Rose AM (ed.) *Human Behaviour and Social Processes*. Boston: Houghton Mifflin Co.

Blumer H (1969) *Symbolic Interactionism: Perspective and Method*. Berkeley: University of California Press.

Boden D and Molotch HL (1994) The Compulsion of Proximity. In Friedland R and Boden D (eds.) *Now, Here: Space, Time and Modernity*. Berkeley: University of California Press.

Boden D and Zimmerman DH (1991) *Talk and Social structure*. Cambridge: Polity Press.

Bogdan RC and Biklen SK (2007) *Qualitative Research for Education*. Boston: Pearson.

Bøllingtoft A (2012) The Bottom-up Business Incubator: Leverage to Networking and Cooperation Practice in a Self-Generated, Entrepreneurial Enabled Environment. *Technovation* 32, 304–315.

Bowles S and Gintis H (2002) Social Capital and Community Governance. *Economic Journal*, 112, 483, 419-436.

Brabham D (2008) Crowdsourcing as a Model for Problem Solving. *Convergence: The International Journal of Research into New Media Technologies*, 14(1), 75–90.

Brenner M, Brown J and Canter D (1985) *The Research Interview: Uses and Approaches*. London: Academic Press.

Breugst N, Domurath A, Patzel H and Perry A (2012) Perceptions of Entrepreneurial Passion and Employees' Commitment to Entrepreneurial Ventures. *Entrepreneurship: Theory and Practice*, 36(1), 171-192.

Bruneel J, Ratinho, TF, Clarysse B, and Groen AJ (2012). The Evolution of Business incubators: Comparing Demand and Supply of Business Incubation Services across Different Incubator Generations. *Technovation*, 32(2), 110–121.

Brunei Times, March 21, 2012 - Cyberunai in Tie-up with Indian Firm [online]. Available at:
<<http://www.bt.com.bn/business-national/2012/03/21/cyberunai-tie-indian-firm>>
[Accessed 16 January 2014]

Brunei Times, Dec 6, 2012 - HRH presents APICTA awards [online]. Available at:
<<http://www.bt.com.bn/2012/12/06/hrh-presents-apicta-awards>>
[Accessed 5 February 2014]

Brunei Times Dec 9, 2011- Mobile App Developers Must be Business Savvy to Succeed [online]. Available at: <http://www.bt.com.bn/business-national/2011/12/09/mobile-app-developers-must-be-business-savvy-succeed> [Accessed 16 January 2014]

Brusco S (1986) Small firms and Industrial Districts: The Experience of Italy. In D Keeble and F Weever (eds.) *New Firms and Regional Development in Europe*. London: Croom Helm.

- Bryman A (2012) *Social Research Methods* (4th ed.) Oxford: Oxford University Press.
- Callon M (2012) Society in the Making: The study of Technology as a Tool for Sociological Analysis. In Bijker WE, Hughes TP and Pinch T (eds.) *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Anniversary edition). Cambridge MA/London: MIT Press.
- Caprar DV (2011) Foreign Locals: A Cautionary Tale on the Culture of MNC Local Employees. *Journal of International Business Studies*, 42(5), 608–628.
- Cardon MS, Wincent J, and Drnovsek M (2009) The Nature and Experience of Entrepreneurial Passion. *The Academy of Management Review*, 34(3), 511-532.
- Cardon MS and Kirk CP (2015) Entrepreneurial Passion as Mediator of the Self-Efficacy to Persistence Relationship Entrepreneurship. *Theory and Practice*, 39(5), 1027-1050.
- Carter MJ and Fuller C (2015) Symbolic Interactionism. *Sociopedia.isa*.
- Carter R (2004) *Language and Creativity: The Art of Common Talk*. London: Routledge.
- Chen XP, Yao X and Kotha S (2009) Entrepreneur Passion And Preparedness In Business Plan Presentations: A Persuasion Analysis Of Venture Capitalists' Funding Decisions. *The Academy of Management Journal*, 52(1), 199-214.
- Chiang FFT and Birtch TA (2006). An Empirical Examination of Reward Preferences Within and Across National Settings. *Management International Review*, 46(5), 573–596.
- Chih-Wen Cheng (2012) The System and Self-reference of the App Economy: The Case Study of Angry Birds. *Westminster Papers in Communication and Culture*, 9 (1), 49-66.
- Child J (1998) Trust and International Strategic Alliances: The Case of Sino-Foreign Joint Ventures. In Lane C and Bachmann R (eds.) *Trust within and between Organizations*. Oxford: Oxford University Press.
- Chinese Culture Connection (1987) Chinese Values and the Search for Culture-free Dimensions of Culture. *Journal of Cross-Cultural Psychology*, 18, 143–164.

Coleman J (1990) *Foundations of Social Theory*. Cambridge, Mass: Harvard University Press.

Comer JC and Wikle TA (2008) Worldwide Diffusion of the Cellular Telephone, 1995–2005. *The Professional Geographer*, 60(2), 252–269.

Cook KS, Hardin R, and Levi M (2005) *Cooperation Without Trust?* New York: Russel Sage Foundation.

Cooley CH (1902) *Human Nature and the Social Order*. New York: Scribner's.

Cooper C (2008) Elucidating the Bonds of Workplace Humor: A Relational Process Model. *Human Relations*, 61, 1087–1115.

Constant II, EW (2012) The Social Locus of Technological Practice: Community, System or Organization? In Bijker WE, Hughes TP and Pinch T (eds.) *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Anniversary edition). Cambridge MA/London: MIT Press.

Creswell JW (2014) *Research Design* (4th Edition). London: Sage.

Dabic M, Potocan V and Nedelko Z (2017) Personal Values Supporting Enterprises' Innovations in the Creative Economy. *Journal of the Knowledge Economy*, 8, 1241–126.

Dasgupta P (1998) Trust as a commodity. In Gambetta D (ed.) *Trust: Making and Breaking of Cooperative Relations*. Oxford: Blackwell.

Delanty G and Strydom P (2003) *Philosophies of Social Science: The Classic and Contemporary Readings*. Maidenhead: Open University Press.

Dingwall, R (2015) Formality in the Interactional Study of Organizations. In Mica A, Winczorek J and Wiśniewski R (eds.) *Sociologies of Formality and Informality*. Frankfurt: Peter Lang.

Dorsey ER, Steeves HL and Porras LE (2004) Advertising Ecotourism on the Internet: Commodifying Environment and Culture. *New Media and Society*, 6, 753-79.

Duncan OD, Featherman DL and Duncan B (1972) *Socioeconomic Background and Achievement*. New York: Seminar Press.

Durlauf SN and Fafchamps M (2004) Social Capital. *NBER Working Papers*. Working paper 10485.

Eberle T and Maeder C (2002) The Goals of the Conference. *Conference Proceedings, Conference on Ethnographic Organization Studies*. Switzerland: University of St Gallen.

ERC (2013) Workplace Culture: What it Is, Why it Matters, & How to Define It. Available at: <http://www.yourerc.com/blog/post/Workplace-Culture-What-it-Is-Why-it-Matters-How-to-Define-It.aspx> (Accessed 28 December 2015).

Etzkowitz H (2001) The Second Academic Revolution and the Rise of Entrepreneurial Science. *Technology and Society Magazine*, 20, 18–29.

Evers HD and Bauer T (2011) Emerging Epistemic Landscapes: Knowledge Clusters in Ho Chi Minh City and the Mekong Delta. In Menkhoff T, Evers HD, Wah CY and Fong PE (eds.) *Beyond the Knowledge Trap*. Singapore: World Scientific.

Fagerberg J, Mowery, DC, and Nelson, RR (eds.) (2005) *The Oxford Handbook of Innovation*. Oxford: Oxford University Press.

Flick U (1998) *An Introduction to Qualitative Research*. London: Sage.

Forbes - Apple's App Store About To Hit 1 Million Apps [online]. Available at: <http://www.forbes.com/sites/chuckjones/2013/12/11/apples-app-store-about-to-hit-1-million-apps/> [Accessed 15 January 2014]

Fukuyama F (1995) *Trust: The Social Virtues and the Creation of Prosperity*. New York: Free Press.

Gambetta D (1998) Can We Trust Trust? In Gambetta D (ed.) *Trust: Making and Breaking of Cooperative Relations*. Oxford: Blackwell.

Giddens A (1984) *The Constitution of Society: Outline of the Theory of Structuration*. Berkeley: University of California Press.

Giddens A (1993) *The Transformation of Intimacy: Love, Sexuality and Eroticism in Modern Society*. Cambridge: Polity.

Glaser BG and Straus AL (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago, IL: Aldine.

Goffman E (1956a) *The Presentation of Self in Everyday Life*. Edinburgh: University of Edinburgh.

Goffman E (1956b) Embarrassment and Social Organization. *American Journal of Sociology*, 62(3), 264-271.

Goffman E (1963) *Behaviour in Public Places: Notes on the Social Organization of Gathering*. New York: Free Press.

Goffman E (1967) *Interaction Ritual*. Chicago: Aldine.

Goleman D (1996) *Emotional Intelligence*. London: Bloomsbury.

Goleman D (2013) *Focus: The Hidden Driver of Excellence*. London: Bloomsbury.

Gomez MCA (2009) Bodies, Machines, and Male Power. In Johnson, DG and Wetmore JM (2009). *Technology and Society: Building Our Sociotechnical Future*. Cambridge: MIT Press.

Good D (1988) Individuals, Interpersonal Relations, and Trust. In Gambetta D (ed.) *Trust: Making and Breaking of Cooperative Relations*. Oxford: Blackwell.

Granovetter MS (1973) The Strength of Weak Ties. *American Journal of Sociology*, 78 (6), 1360-1380.

Granovetter MS (1983) The Strength of Weak Ties: A Network Theory Revisited. *Sociological Theory*, 1(1), 201-233.

Greenfield, P (1997) You Can't Take it with You. Why Ability Assessments Don't Cross Cultures. *American Psychology*, 52, 1115–1124.

Grimaldi R and Grandi A (2005) Business Incubators and New Venture Creation: An Assessment of Incubating Models. *Technovation*, 25 (2), 111–121.

Groenewald L (2015) Understanding Informality: Conceptual Lessons from Informal Settlement in Southern Africa. In Mica A, Winczorek J and Wiśniewski R (eds.) *Sociologies of Formality and Informality*. Frankfurt: Peter Lang.

Gruber TR (1989) *The Acquisition of Strategic Knowledge*. San Diego: Academic Press.

Hackett SM and Dilts DM (2004) A Systematic Review of Business Incubation Literature. *Journal of Technology Transfer*, 29, 55–82.

Hafen CA, Laursen B, Burk WJ, Stattin H, and Kerr M (2011) Homophily in Stable and Unstable Adolescent Friendships: Similarity Breeds Constancy. *Personality and Individual Differences*, 51(5), 607-612.

Hamel J, Dufour S, and Fortin D (1993) *Research Methods*. London: Sage Publication.

Hamid H (1999) *Cerocok Budaya Brunei*. Gadong: Akademi Pengajian Brunei, Universiti Brunei Darussalam.

Hansen MT, Chesbrough HW, Nohria N and Sull DS (2000) Networked Incubators: Hothouses of the New Economy. *Harvard Business Review*, 78, 74–84.

Hayek F (1988) *The Fatal Conceit*. Chicago: University of Chicago Press.

Haynes BP (2007) Office Productivity: A Theoretical Framework. *Journal of Corporate Real Estate*, 9(2), 97–110.

Haynes B (2008) An Evaluation of the Impact of the Office Environment on Productivity. *Facilities*, 26(5/6), 178–195.

Higgins JM (2012) Management by Apps. *World Future Review*, 4, 51-61.

Hofstede G (1980) *Culture's Consequences: International Differences in Work-related Values*. Newbury Park, CA: Sage.

Hofstede G (1998) Think Locally, Act Globally: Cultural Constraints in Personnel Management. *Management International Review*, 38(2), 7–26.

Horst HA and Miller D (2006) *The Cell Phone: An Anthropology of Communications*. New York: Berg.

Humphrey J (1998) Trust and the Transformation of Supplier Relations in Indian Industry. In Lane C and Bachmann R (eds) *Trust within and between Organizations*. Oxford: Oxford University Press.

Huston TL and Levinger G (1978) Interpersonal Attraction and Relationships. *Annual Review of Psychology*, 29, 115-156.

iCentre Brunei – <<http://www.icentre.biz>> [Accessed 6 May 2014]

Inderbitzen-Pisaruk H and Foster SL (1990) Adolescent Friendships and Peer Acceptance: Implications for Social Skills Training. *Clinical Psychology Review*, 10(4), 425-439

Infindo Technology – Brunei SMEs Launch iPhone Apps [online].
<http://www.infindo.com/?p=2876> [Accessed 16 January 2014]

Jaeger AM, Kim SS and Butt AN (2016) Leveraging Values Diversity: The Emergence and Implications of a Global Managerial Culture in Global Organizations. *Management International Review*, 56, 227–254.

Jarillo JC (1998) On Strategic Networks. *Strategic Management Journal*, 9, 31-41.

Jaskyte K (2011) Predictors of Administrative and Technological Innovations in Nonprofit Organizations. *Public Administration Review*, 71(1), 77-86.

Johnson DG and Wetmore JM (eds.) (2009) *Technology and Society: Building Our Sociotechnical Future*. Cambridge: MIT Press.

Jones GK and Davis HJ (2000) National Culture and Innovation: Implications for Locating Global R& D Operations. *Management International Review*, 40 (1), 11-39.

Jones GR and George JM (1998) The Experience and Evolution of Trust: Implications for Cooperation and Teamwork. *The Academy of Management Review*, 23 (3), 531-546.

Judkins R (2015) *The Art of Creative Thinking*. London: Sceptre

Jukim M (2014) *Patuturan: Jati Diri dan Akar Budaya KeBruneian* (Doctoral Dissertation). Bangi: Universiti Kebangsaan Malaysia.

Juniper Research Dec 10, 2013 - Press Release: Global Mobile & Tablet Entertainment Revenues to Reach Almost \$75 Billion by 2017, Finds Juniper [online].
 Available at: <<http://www.juniperresearch.com/viewpressrelease.php?pr=417>>
 [Accessed 16 January 2014]

Juniper Research Jan 6, 2014– Press Release: Spend on In-App Advertising Grows to almost \$17 billion by 2018, Predicts Juniper Research [online].
 Available at: <<http://www.juniperresearch.com/viewpressrelease.php?pr=421>>
 [Accessed 16 January 2014]

Kadushin C (2012) *Understanding Social Networks: Theories, Concepts, and Findings*. Oxford: Oxford University Press.

Kandel DB (1973) Adolescent Marihuana Use: Role of Parents and Peers. *Science*, 181 (4104), 1067-70.

Kandel DB (1978) Homophily, Selection, and Socialization in Adolescent Friendships *American Journal of Sociology*, 84 (2), 427-436.

Kern H (1998) Lack of Trust, Surfeit of Trust: Some Causes of the Innovation Crisis in German Industry. In Lane C and Bachmann R (eds.) *Trust within and between Organizations*. Oxford: Oxford University Press.

Khilji SE (2002) Modes of Convergence and Divergence: An Integrative View of Multinational Practices in Pakistan. *International Journal of Human Resource Management*, 13(2), 232–253.

Kidd J and Richter F-J (2004) Building Trust in Asian Business. In Kidd J and Richter F-J (eds.) *Trust and Antitrust in Asian Business Alliances*. Hampshire: Palgrave Macmillan.

Kidd J and Richter F-J (eds.) (2004) *Trust and Antitrust in Asian Business Alliances*. Hampshire: Palgrave Macmillan.

King VT (2008) *The Sociology of Southeast Asia: Transformations in a Developing Region*. Copenhagen: NIAS Press.

Klein HK and Kleinman DL (2002) The Social Construction of Technology: Structural Considerations. *Science, Technology, & Human Values*, 27 (1), 28-52.

Kline R and Pinch T (1999) The Social Construction of Technology. In Mackenzie D and Wajcman J (eds.) *The Social Shaping of Technology* (2nd ed). New York: Open University Press.

Knopp L (2007) State of the Business Incubation Industry. *National Business Incubation Association*. Athens, OH: NBIA Publications.

Kramer RM and Tyler TR (eds.) (1996) *Trust in Organizations; Frontiers of Theory and Research*. Thousand Oaks, Calif: Sage.

Kramer RM and Cook KS (eds.) (2007) *Trust and Distrust in Organization*. New York: Russel Sage Foundation.

Kvale S (1996) *InterViews: An Introduction to Qualitative Research Interviewing*. Thousand Oaks, CA: Sage.

Lalkaka R (2003) Business Incubators in Developing Countries: Characteristics and Performance. *International Journal of Entrepreneurship and Innovation Management*, 3 (1/2), 31–55.

Lam A (2005) Organizational Innovation. In Fagerberg J, Mowery DC, and Nelson RR (eds.) *The Oxford Handbook of Innovation*. Oxford: Oxford University Press.

Lane C and Bachmann R (eds.) (1998) *Trust within and between Organizations*. Oxford: Oxford University Press.

Lane C (1998) Introduction: Theories and Issues in the Study of Trust. In Lane C and Bachmann R (eds.) *Trust within and between Organizations*. Oxford: Oxford University Press.

Latour B (2009) Where are the Missing Masses? The Sociology of a Few Mundane Artifacts. In Johnson DG and Wetmore JM (eds.) *Technology and Society: Building Our Sociotechnical Future*. Cambridge: MIT Press.

Laursen B, Hartup WW and Koplas AL (1996) Towards Understanding Peer Conflict. *Merrill-Palmer Quarterly*, 42(1), 76-102.

Lauth, Hans-Joachim (2015) Rule of law and informal institutions. In Mica A, Winczorek J and Wiśniewski R (eds.) *Sociologies of Formality and Informality*. Frankfurt: Peter Lang.

Lawson T (2001) Evaluating Trust, Competition and Cooperation. In Shionoya, Y and Yagi, K (eds.) *Competition, Trust, and Cooperation: A Comparative Study*. New York: Springer.

Lazarsfeld PF and Merton RK (1954) Friendship as a Social Process: A Substantive and Methodological Analysis. In Berger M, Theodore Abel T, and Page CH (eds.) *Freedom and Control in Modern Society*. New York: Van Nostrand.

Lazonick W (2003) The Social Foundations of Innovative Enterprise. *Franco Momigliano Lecture*, Istituto per la Cultura e la Storia d'Impresa, Terni, Italy, July 10.

Lazonick W (2005) The Innovative Firm in Fagerberg J, Mowery DC and Nelson RR (ed.) *The Oxford Handbook of Innovation*. Oxford: Oxford University Press.

Lin N (2001), *Social Capital*. Cambridge: Cambridge University Press.

Livingstone S (2008) Internet Literacy: Young People's Negotiation of New Online Opportunities. In McPherson T (ed.) *Digital Youth, Innovation, and the Unexpected*. Cambridge: The MIT Press.

Luhmann N (1979) *Trust and power*. New York: Wiley.

Lui SS, Lau CM, and Ngo HY (2004) Global Convergence, Human Resources Best Practices, and Firm Performance: A Paradox. *Management International Review*, 44(2), 67–86.

Mackenzie D and Wajcman J (eds.) (1999) *The Social Shaping of Technology*. New York: Open University Press.

Mallet, O and Wapshott R (2014) Informality and Employment Relationships in Small Firms: Humour, Ambiguity and Straight-Talking. *British Journal of Management*, 25(1), 118-132.

Majors K (2012) Friendships: The Power of Positive Alliance. In Roffey S (ed.) *Positive Relationships*. Dordrecht: Springer.

Markham AN (2011) Internet Research. In Silverman D (ed.) *Qualitative Research*. London: Sage.

Markman GD, Baron RA and Balkin DB (2005) Are Perseverance and Self-efficacy Costless? Assessing Entrepreneurs' Regretful Thinking. *Journal of Organizational Behavior*, 26(1), 1–19.

Massey D, Quintas P and Wield D (1992) *High-Tech Fantasies: Science Parks in Society, Science and Space*. UK: Routledge.

Mas-Verdú F, Ribeiro-Soriano D and Roig-Tierno N (2015) Firm survival: The Role of Incubators and Business Characteristics. *Journal of Business Research*, 68, 793–796.

Matsumoto M (1988) *The Unspoken Way Haregei: Silence in Japanese Business and Society*. Tokyo: Kodansha International.

McAllister DJ (1995) Affect and Cognition-based Trust as Foundations for Interpersonal Cooperation in Organizations. *Academy of Management Journal*, 38, 24-59.

McEvily B (2003) Trust as an Organizing Principle. *Organization Science*, 14 (1), 91-103.

McEvily B and Zaheer A (2007) Architects of Trust: The Role of Network Facilitators in Geographical Clusters. In Kramer AM and Cook KS (eds.) *Trust and Distrust in Organization*. New York: Russel Sage Foundation.

McGaughey SL and De Cieri H (1999) Reassessment of Convergence and Divergence Dynamics: Implications for International Hrm. *International Journal of Human Resource Management*, 10(2), 235–250.

McPherson M, Smith-Lovin L and Cook JM (2001) Birds of a Feather: Homophily in Social Networks. *Annual Review of Sociology*, 27, 415-444.

Mead GH (1934) *Mind, Self, and Society*. Chicago: University of Chicago Press.

Mendelson MJ and Aboud FE (1999) Measuring Friendship Quality in Late Adolescents and Young Adults: McGill Friendship Questionnaires. *Canadian Journal of Behavioural Science*, 31, 130-132.

MeSixty –Blog- Available at:

<http://www.mesixty.com/joomla/index.php/blog?start=3>

[Accessed 20 January 2014]

Metzger L (2007) *Nilai-Nilai Melayu: Satu Sudut Pandangan Orang Luar*. Tanjong Malim: Universiti Pendidikan Sultan Idris.

Mica A, Winczorek J and Wiśniewski R (2015) *Sociologies of Formality and Informality*. Frankfurt: Peter Lang.

Michalos AC (1990) The Impact of Trust on Business, International Security and the Quality of Life. *Journal of Business Ethics*, 9, 619-38.

Miller J and Glassner B (2011) ‘The “Inside” and the “Outside”: Finding Realities in Interviews. In Silverman D (ed.) *Qualitative Research*. London: Sage.

Mische A (2002) Review: Informality, Social Theory and Contemporary Practice. *Contemporary Sociology*, 31 (5), 608-610.

Misztal BA (1996) *Trust in Modern Society*. Malden: Polity Press.

Misztal BA (2000) *Informality: Social Theory and Contemporary Practice*. London: Routledge.

Misztal BA (2015) Configurations of Informality and Formality in Contemporary Society. In Mica A, Winczorek J and Wiśniewski R (eds.) *Sociologies of Formality and Informality*. Frankfurt: Peter Lang.

Molm LD (2006) Cooperation without Trust? (Book Review). *Administrative Science Quarterly*, 51(2), 305-307.

Moustakas C (1995) *Being-In, Being-For, Being-With*. Northvale: Jason Aronson.

Mulkay MJ (1972) *The Social Process of Innovation*. London: Macmillan.

Narula R and Zanfei A (2005) Globalization of Innovation: The Role of Multinational Enterprise. In Fagerberg J, Mowery DC, and Nelson RR (eds.) *The Oxford Handbook of Innovation*. Oxford: Oxford University Press.

Negandhi AR (1975) Comparative Management and Organizational Theory: A Marriage Needed. *Academy of Management Journal*, 18, 334–344.

Nohria N and Eccles RG (1992) Face to Face. In Nohria N and Eccles RG (eds.) *Networks and Organizations*. Boston: Harvard Business School Press.

Nooteboom B (2000) *Learning and Innovations in Organizations and Economies*. Oxford: Oxford University Press.

North DC (1990) *Institutions, Institutional Challenge, and Economic Performance*. Cambridge: Cambridge University Press.

Ojha AK and Holmes TL (2010) Don't Tease Me, I'm Working: Examining Humor in a Midwestern Organization Using Ethnography of Communication. *The Qualitative Report*, 15(2), 280-302.

Olson JM and Zanna MP (1993) Attitudes and Attitude Change. *Annual Review of Psychology*, 44, 117-154.

O'Sullivan M (2000) The Innovative Enterprise and Corporate Governance. *Cambridge Journal of Economics*, 24(4), 393-416.

Oxford Business Group (2010) *The Report: Brunei Darussalam 2011*. Oxford Business Group.

Oxford Business Group (2013) *The Report: Brunei Darussalam 2013*. Oxford Business Group.

Pan W, Aharony N, and Pentland, A (2011) Composite Social Network for Predicting Mobile Apps Installation. *Proceeding of AAAI*, 821-827.

Patton MQ (2002) *Qualitative Research & Evaluation Methods*. Thousand Oaks: Sage.

Pavitt K (2005) Innovation processes. In Fagerberg J, Mowery DC and Nelson RR (eds.) *The Oxford Handbook of Innovation*. Oxford: Oxford University Press.

Peter BG (1999) *Institutional Theory in Political Science: The New Institutionalism*. London and New York: Pinter.

Peters L, Rice M and Sundararajan M (2004) The Role of Incubators in the Entrepreneurial Process. *The Journal of Technology Transfer*, 29 (1), 83–91.

Phan PH, Siegel D and Wright M (2005) Science Parks and Incubators: Observations, Synthesis and Future Research. *Journal of Business Venturing*, 20, 165–182.

Pinch TJ (1993) Testing, One Two, Three... Testing: Towards a Sociology of Testing. *Science, Technology, and Human Values*, 18, 25-41.

Pinch TJ and Bijker WE (2012) The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other. In Bijker WE, Hughes TP and Pinch T (eds.) *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Anniversary edition). Cambridge MA/London: MIT Press.

Plato, Fowler HN, Lamb WRM, Bury RG & Shorey P (1967) *Plato in Twelve Volumes. With an English Translation*. Cambridge, Mass: Harvard University Press.

Platteau J-P (1994a) Behind the Market Stage Where Real Societies Exist: Part I -The Role of Public and Private Order Institutions. *Journal of Development Studies*, 30 (3), 533-577.

Platteau J-P (1994b) Behind the Market Stage Where Real Societies Exist: Part II -The Role of Moral Norms. *Journal of Development Studies*, 30 (3), 533-577.

Poulin F and Boivin M (2000) Reactive and Proactive Aggression: Evidence of a Two-Factor Model. *Psychological Assessment* 12(2), 115-22

Powell WW (1996) Trust-based Forms of Governance. In Kramer RM and Tyler TR (eds.) *Trust in Organizations; Frontiers of Theory and Research*. Thousand Oaks: Sage.

Powell WW and Grodal S (2005) Networks of Innovation. In Fagerberg J, Mowery DC, and Nelson, RR (eds.) *The Oxford Handbook of Innovation*. Oxford: Oxford University Press.

Putnam R (2000) *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.

Putnam R and Leonardi R and Nanetti R (1993) *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton: Princeton University Press.

Ralston, DA (2008) The Crossvergence Perspective: Reflections and Projections. *Journal of International Business Studies*, 39(1), 27–40.

Ralston D, Egri C, Furrer O, Kuo MH, Li Y, Wangenheim F, et al. (2014) Societal-level Versus Individual-level Predictions of Ethical Behavior: A 48-society Study of Collectivism and Individualism. *Journal of Business Ethics*, 122(2), 283–306.

Ralston D, Egri C, Reynaud E, Srinivasan N, Furrer O, Brock D, et al. (2011) A Twenty-first Century Assessment of Values Across the Global Workforce. *Journal of Business Ethics*, 104(1), 1–31.

Ralston DA, Holt DH, Terpstra RH and Kai-Cheng Y (1997) The Impact of National Culture and Economic Ideology on Managerial Work Values: A Study of the United States, Russia, Japan, and China. *Journal of International Business Studies*, 28(1), 177–207.

Ralston DA, Russell CJ and Egri CP (2018) Business Values Dimensions: A Cross-Culturally Developed Measure of Workforce Values. *International Business Review*, 27, 1189-1199.

Reid LA (1977) Comparing Telephone with Face-to Face Contact. In Pool IDS (ed.) *The Social Impact of the Telephone*. Cambridge, MA: MIT Press.

Reuters, Mar 26, 2013 - Just do it, says Yahoo's teen app millionaire-[Online] Available at: <<http://www.reuters.com/article/2013/03/26/us-yahoo-summy-daloisio-profile-dUSBRE92P01C20130326>> [Accessed 9 February 2014]

Richardson HM (1939) Studies of Mental Resemblance between Husbands and Wives and between Friends. *Psychological Bulletin*, 36(2), 104-120.

Richardson HM (1940) Community of Values as a Factor in Friendships of College and Adult Women. *Journal of Social Psychology*, 11, 303-12.

Rogers EM (2003) *Diffusion of Innovations* (Fifth ed.) New York: Free Press.

Rokeach M (1973) *The Nature of Human Values*. New York: Free Press.

Rosen P (1993) The Social Construction of Mountain Bikes: Technology and Postmodernity in the Cycle Industry. *Social Studies of Science*, 23, 479-513.

Rousseau DM, Sitkin SB, Burt RS, & Camerer C (1998) Not so Different After All: A Cross-Discipline View of Trust. *Academy of Management Review*, 23(3), 393-404.

Rubin TH, Aas TH, and Stead A (2015) Knowledge Flow in Technological Business Incubators: Evidence from Australia and Israel. *Technovation*, 41-42, 11-24.

Sabel C (1992) Studied Trust: Building New Forms of Cooperation in a Volatile Economy. In Pyke F and Sengenberger W (eds.) *Industrial Districts and Local Economic Regeneration*. Geneva: ILS.

Sako M (1998) Does Trust Improve Business Performance. In Lane C and Bachmann R (eds.) *Trust within and between Organizations*. Oxford: Oxford University Press.

Sandvig C (2008) Wireless Play and Unexpected Innovation. In McPherson T (ed.) *Digital Youth, Innovation, and the Unexpected*. Cambridge: The MIT Press.

Schein EH (1992) *Organizational Culture and Leadership*. San Francisco, CA: Jossey-Bass.

Schumpeter R (1954) *History of Economic Analysis*. New York: Allen & Unwin.

Schwartz M and Hornyk C (2008) Specialization as Strategy for Business Incubators: An Assessment of the Central German Multimedia Center. *Technovation*, 28 (7), 436-449.

Schwartz M and Hornyh C (2010) Cooperation Patterns of Incubator Firms and the Impact of Incubator Specialization: Empirical Evidence from Germany. *Technovation*, 30 (9–10), 485–495.

Schwartz SH (1994a) Beyond Individualism/Collectivism: New Cultural Dimensions of Values. In Kim U, Triandis HC, Kagitcibasi C, Choi S, and Yoon G (eds.) *Individualism and Collectivism: Theory, Method, and Applications*. Thousand Oaks, CA: Sage Publications.

Schwartz SH (1994b) Are There Universal Aspects in the Structure and Contents of Human Values? *Journal of Social Issues*, 50(4), 19–45.

Scillitoe JL and Chakrabarti AK (2010) The Role of Incubator Interactions in Assisting New Ventures. *Technovation*, 30 (3), 155–167.

Scott J (1990) *A Matter of Record*. Cambridge: Polity.

Scott J and Marshall G (2009) *Oxford Dictionary of Sociology*. Oxford: Oxford University Press.

Seale C (2004) *Social Research Methods: A Reader*. London: Routledge.

Sebastian RJ and Bristow D (2008) Formal or Informal? The Impact of Style of Dress and Forms of Address on Business Students' Perceptions of Professors. *Journal of Education for Business*, 2, 196–201.

Sennett R (2012) *Together: The Rituals, Pleasures and Politics of Cooperation*. London: Allen Lane.

Serpe RT and Stryker S (2011) The Symbolic Interactionist Perspective and Identity Theory. In Schwartz SJ, Luyckx, K & Vignoles VL (eds.) *Handbook of Identity Theory and Research*. New York: Springer-Verlag.

Shionoya Y and Yagi K (eds.) (2001) *Competition, Trust, and Cooperation: A Comparative Study*. New York: Springer.

Sillince JAA and Brown AD (2009) Multiple Organizational Identities and Legitimacy: The Rhetoric of Police Websites. *Human Relations*, 62, 1829–56.

Silver A (1989) Friendship and Trust as Moral Ideals: An Historical Approach. *European Journal of Sociology*, 30(2), 274–297.

Silverman D (2001) *Interpreting Qualitative Data: Methods for Analyzing Talk, Text, and Interaction*. London: Sage.

Silverman D (2004) *Qualitative Research: Theory, Methods and Practice*. London: Sage.

Simmel G (1950) *The Sociology of Georg Simmel*. New York: Free Press.

Simmel G (1978) *The Philosophy of Money*. London: Routledge & Kegan Paul.

Smith KG, and Carroll SJ, and Ashford SJ (1995) Intra-and Interorganizational Cooperation: Toward a Research Agenda. *Academy of Management Journal* 38, 7-23.

Smitka M (1991) *Competitive Ties: Subcontracting in the Japanese Automotive Industry*. New York: Columbia University Press.

Snow D (2001) Extending and Broadening Blumer's Conceptualization of Symbolic Interactionism. *Symbolic Interaction*, 24(3), 367-377.

Squire K and Dikkers S (2012) Amplifications of Learning: Use of Mobile Media Devices Among Youth. *Convergence*, 18, 445-464.

Statista Mobile app usage - Statistics & Facts.

Available at: <https://www.statista.com/topics/1002/mobile-app-usage/>
[Accessed 23 August 2019]

Strum S and Latour B (1999) Redefining the Social Link: From Baboons to Humans. In MacKenzie D and Wajcman J (eds.) *The Social Shaping of Technology* (2nd ed). Berkshire: Open University Press.

Sztompka P (1999) *Trust*. New York: Cambridge University Press.

Taras V, Steel P, & Kirkman B (2016) Does Country Equate with Culture?: Beyond Geography in the Search for Cultural Boundaries. *Management International Review*, 56, 455–487.

Terpstra-Tong J and Ralston DA (2002) Moving Toward a Global Understanding of Upward influence Strategies: An Asian Perspective with Directions for Cross-Cultural Research. *Asia Pacific Journal of Management*, 19, 373-404.

Tung RL (2008) The Cross-cultural Research Imperative: The Need to Balance Cross-national and Intra-national Diversity. *Journal of International Business Studies*, 39(1), 41–46.

Tung RL and Verbeke A (2010) Beyond Hofstede and GLOBE: Improving the Quality of Cross-Cultural Research. *Journal of International Business Studies*, 41, 1259–1274.

Tusa J (ed.) (2003) *On Creativity: Interviews Exploring the Process*. London: Methuen.

Urquhart C (2013) *Grounded Theory for Qualitative Research*. London: Sage.

Vanderstraeten J and Matthyssens P (2012) Service-based Differentiation Strategies for Business Incubators: Exploring External and Internal Alignment *Technovation*, 32, 656–670.

Vinton KL (1989) Humor in the Workplace: It is More Than Telling Jokes. *Small Group Behavior*, 20(2), 151–66.

Vlajcic D and Dabic M (2019) The Role of Geographical Distance on the Relationship between Cultural Intelligence and Knowledge Transfer. *Business Process Management Journal*, 25(1), 104-125.

Volti R (2010) *Society and Technological Change* (6th ed) New York: Worth Publishers.

Von Hippel E (1988) *The Sources of Innovation*. Oxford: Oxford University Press.

vonZedtwitz M and Grimaldi R (2006) Are Service Profiles Incubator-Specific? Results from an Empirical Investigation in Italy. *The Journal of Technology Transfer*, 31 (4), 459–468.

Weber M (1947) *The Theory of Social Economic Organization*. Glencoe, IL: Free Press.

Wetmore JM (2009) Amish Technology: Reinforcing Values and Building Community. In Johnson DG and Wetmore JM (eds.) *Technology and Society: Building Our Sociotechnical Future*. Cambridge: MIT Press.

White P (1993) Trust and Toleration: Some issues for Education in a Multicultural Democratic Society. In Horton J (ed.) *Liberalism, Multiculturalism and Toleration*. London: Macmillan.

Winner L (1999) Do Artifacts Have Politics? In Mackenzie D and Wajcman J (eds.) *The Social Shaping of Technology* (2nd ed). New York: Open University Press.

Winnicott DW (1971) *Playing and Reality*. Harmondsworth: Penguin.

Wong D and Yeoh M (2004) Asian Values, Malaysian Style: Imperatives for Building Cross-cultural Partnerships in Malaysia. In Kidd J and Richter F-J (eds.) *Trust and Antitrust in Asian Business Alliances*. Hampshire: Palgrave Macmillan.

World Economic Forum. Available at: <<http://www.weforum.org/issues/global-information-technology/the-great-transformation/network-readiness-index>> [Accessed 5 December 2013]

Wouters C (2007) *Informalization: Manners and Emotions since 1890*. London: Sage.

Wu S, Matthews L and Dagher GK (2007) Need for Achievement, Business Goals, and Entrepreneurial Persistence. *Management Research News*, 30(12), 928–941.

Yang K (2008) Review: Cooperation without Trust? *Public Administration Review*, 68, 1164–1166.

Yoo Y, Boland RJ, Lyytinen K, and Majchrzak A (2009) Special Issue: Organizing for Innovation in the Digitized World. *Organization Science*, 20(1), 278–279.

Zien KA and Buckler SA (1997) From Experience Dreams to Market: Crafting a Culture of Innovation. *Journal of Product Innovation Management*, 14, 274–287.

Appendix 1

INFORMATION SHEET: Detailed Study Information

1. What is the purpose of the study and what will it involve?

I am a Second Year PhD student at the University of Leicester, United Kingdom. My research aims to understand the experiences of the incubatees who specialise in computer and mobile applications (apps) development at iCentre Brunei. The research examines processes which facilitate innovation, as well as those that hamper it. In this project I am using documentary analysis, observations, and interviewing as ways of collecting my data.

To collect data for this research, I will require access to the relevant publicly available documents. In addition, I will require access to attend and observe meetings that are deemed as relevant for my study.

2. Will the information obtained in the study be confidential?

All details recorded in the study will be treated in the strictest confidence. Full anonymity will be given to incubatees. Full anonymity cannot be given to managers and officers due to their positions and 'identifiability'.

3. Who has reviewed the study?

This study has been approved by following the ethics procedures of University of Leicester.

4. Further information

If you require further information about this research study or wish to ask any questions please contact the researcher at the email address given below:

Researcher: Asmali Sulaiman

Email: as767@leicester.ac.uk

Phone: +673 8621312 / +44 7511402047

Appendix 2

INFORMATION SHEET FOR INCUBATEES

What is the purpose of the study?

I am a Second Year PhD student at the University of Leicester, United Kingdom. My research aims to understand the experiences of the incubatees who specialise in computer and mobile applications (apps) development at iCentre Brunei. The research examines the processes which facilitate innovation, as well as those that hamper it. In this project I am using documentary analysis, observations, and interviewing as ways of collecting my data.

Why have I been chosen?

You are being invited to take part in this study, as you are in a good position to offer insight into this topic and can express relevant and useful views on the conditions that both facilitate and impede the innovation in apps.

Do I have to take part?

No. Your participation is entirely voluntary. If you decide not to take part in the study this will have no effect on you, or in the future.

What is involved if I decide to take part?

An interview will be carried out at iCentre Brunei or whichever would be more convenient for you. The interview will be based around a semi structured interview pattern and will take approximately not more than 2 hours. It is intended as an opportunity for you to express your views on the conditions concerning innovation, cooperation and support provided by iCentre Brunei. The interview will be audio recorded, and later transcribed into text form.

Please note that:

- You can decide to stop the interview at any point.
- You need not answer questions that you do not wish to.
- Your name will be removed from the information. A pseudonym will be used if your words are to be used in the writing of this study. Full anonymity will be granted. No identifiable data will be used.

Researcher's contact address:

Researcher's name: Asmali Sulaiman

Researcher's institution: University of Leicester, United Kingdom.

Email: as767@leicester.ac.uk

Phone: +44 7511402047 / +673 8621312

Supervisors' name:

Dr. Ipek Demir

Email: id34@leicester.ac.uk

Prof. Barbara Misztal

Email: bm50@le.ac.uk

Appendix 3

PARTICIPANT CONSENT FORM (For managers and officers)

Research title: Inventing Apps: The case of the incubatees at iCentre Brunei

Researcher's Name: Asmali Sulaiman

(Supervisor 1) Name: Dr. Ipek Demir

(Supervisor 2) Name: Prof. Barbara Misztal

- I have read the Participant Information Sheet and the nature and purpose of the research project have been explained to me.
- I understand the purpose of the research project and my involvement in it.
- I understand that by signing this form, I indicate my consent to take part in this study.
- I understand that I will be audio recorded during the interview session. The interview will take no more than two hours.
- I understand that I may withdraw from the research project by informing the researcher.
- I understand that data will be stored in a safe place.
- Due to the small size of the organisation and my senior position, I understand that anonymity cannot be granted. I am happy for my name to be used in all PhD writing and future publications.

Name of informant: _____

Signature: _____

Date: _____

Appendix 4

PARTICIPANT CONSENT FORM

Research title: Inventing Apps: The case of the incubatees at iCentre Brunei

Researcher's Name: Asmali Sulaiman

(Supervisor 1) Name: Dr. Ipek Demir

(Supervisor 2) Name: Prof. Barbara Misztal

- I have read the Participant Information Sheet and the nature and purpose of the research project have been explained to me.
- I understand the purpose of the research project and my involvement in it.
- I understand that by signing this form, I indicate my consent to take part in this study.
- I understand that I will be audio recorded during the interview session. The interview will take no more than two hours
- I understand that while the information gained during the study may be published, I will not be identified, and my personal results will remain confidential. Full anonymity and privacy will be granted.
- I understand that data will be stored in a safe place. This data will be treated with utmost confidentiality and will only be reported in anonymous form.
- I understand that I may withdraw from the research project by informing the researcher.

Name of informant: _____

Signature: _____

Date: _____

Appendix 5

Informants' Background Sheet.

No: Interview (i)	Sex	Age	Education	Role	Rank	Duration at iCentre Brunei (Years/months)
INCUBATEES						
1	M	31	Tertiary	Founder and Director	Senior	1/2
2	M	24	Tertiary	Founder and CEO	Senior	1/7
3	M	24	Tertiary	Co-Founder / Chief Operation Officer	Senior	1/0
4	M	25	Tertiary	Co-Founder / Multimedia Officer	Senior	1/7
5	M	33	Tertiary	Founder and CEO	Senior	3/0
6	M	25	Tertiary	Co-Founder / Graphic designer	Senior	1/8
7	F	24	Tertiary	Founder and CEO	Senior	2/0
8	F	24	Tertiary	Graphic designer	Junior	1/2
9	M	24	Tertiary	Technical Officer	Junior	1/7
10	M	27	Tertiary	Graphic director	Junior	1/2
11	M	26	Tertiary	IT Programmer	Junior	0/7
OFFICIALS						
12	M	34	Tertiary	Manager iCB	NOT APPLICABLE	
13	M	35	Tertiary	Manager iCB		
14	F	27	Tertiary	Incubation Executive officer iCB		
15	F	31	Tertiary	Manager BEDB		
16	F	28	Tertiary	Incubation officer iCB		
17	M	45	Tertiary	Assistant Chief Executive Officer BEDB		