

AN EXPLORATION ON THE RELATIONSHIP BETWEEN ORGANISATIONAL
INNOVATION & PRIVATISATION AND TECHNOLOGICAL INNOVATION &
DIGITISATION & DIGITALISATION: THE CASE OF TELEKOM MALAYSIA
BERHAD

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ABSTRACT

Purpose

This paper aims to explore the potential relationship between organisational innovation and privatisation, technological innovation, and digitisation and digitalisation.

Design/methodology/approach

The thesis tests a framework that was developed based on the systematic literature review of organisational innovation, and a theoretical review of privatisation, technological innovation, and digitisation & digitalisation. A single case-study approach using a semi-structured interview with twenty-seven participants ranging from all levels of management was applied.

Findings

This research found that privatisation is an act of organisational innovation, while technological innovation is a form of digitisation & digitalisation. This thesis also found a virtuous cycle in organisational innovation, privatisation, technological innovation, and digitisation & digitalisation.

Research limitations/implications

The systematic literature review should be expanded to include other databases (and not just SCOPUS). Future research should also look at a more recent case study.

Practical implications

The recommended chaos-based structured model is a first of its kind to adopt a more unstructured approach in organisational innovation to strategise, develop, and execute organisational innovation in a large firm.

Originality/value

No work has been taken into consideration in the systems theory, as a tool to explore the knowledge of organisational innovation and privatisation and its relationship.

Keywords

organisational innovation; technological innovation; digitisation & digitalisation; privatisation; change; transformation; chaos; systems theory

DEDICATION

For my beloved wife and daughter

For Mak Tok, Tok Abah, Arwah Atok, Wan, immediate and extended family members

What I do, I do only for HIM, and both of you, my Cinta and Emma

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In the name of God, the Most Gracious, the Most Merciful

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CHAPTER 1 INTRODUCTION

“Insanity is doing the same thing over and over again and expecting different results”

– Einstein

1.1 Background of Study

Innovation, in general, is an area of interest for both scholars and practitioners (including Governments) alike. This is due to the constant way innovation can evolve and re-invent itself (Fagerberg 2004). Many studies have asserted that innovation is among the top reasons for successes in an organisation. The success of an organisation depends heavily on its ability to survive, re-invest in new ideas, continuously challenge the status quo, recreate, and push the boundaries of technology for continuous growth (Jimenez & Sanz-Valle, 2011; Bell, 2005; Cho & Pucik, 2005; Gopalakshnan & Damanpour, 1997; Damanpour, 1996; Fiol, 1996; Wolfe, 1994). Scholars also postulated that innovation is critical to ensure the organisation’s aggressiveness in further strengthening their standing in the market (Standing & Kiniti, 2011; Bartel & Garud, 2009; Johannessen, 2008; Mumford & Licuanan, 2004). Nonetheless, it can still be seen that large organisations, such as Debenhams (Inman 2019), HMV (Monaghan, Butler 2018) and more recently, Thomas Cook (Anon.2019), are still falling into the trap of not being able to innovate and compete with the newer, more agile digital-based organisations. This could be attributed to the complexity of a large organisation, where many have argued that the elements of complacency, arrogance, and bureaucracy took over the company (Bruno et al. 1987).

Irrespective of the failures, researchers, industry leaders, and Government suggest and concur that innovation is critical for the growth of an organisation. However, there is hardly any tangible evidence of large organisations adopting and/or adapting innovation successfully (Augsdorfer 2008, Pawanchik et al. 2011, Dougherty 2016). Efforts, in the form of the Blue Ocean Strategy (Kim, Mauborgne 2004), Design Thinking (Brown 2008) and The Lean Start-Up (Ries 2010) continue to take place regardless of the continued evidence of significant success. Thus, indicating that there is still confusion about innovation.

1.2 Why Organisations Fail to Innovate

Based on past studies, there appear to be three central contributing factors to the continuous perplexity, namely (i) broken company theory, (ii) type of organisation, and (iii) fundamental understanding of innovation.

1.2.1 Broken Company Theory

There is an issue with the organisation itself, where Laloux (2014) claims that organisations today are broken due to the detachment of leadership, employees, and customers with each other and with the organisation. The detachment mentioned brings the focus on three key areas: first, the detachment (or as Laloux calls it disengagement) of employees from work. Employees engagement-disengagement in Laloux's research discusses factors, such as the employee's confidence or trust-level towards the management team, and alternatively, the management team's interest in the employee's welfare. Second, leaders, who seem to be in control, are actually tired. Leadership is tired of keeping up with the continuing pressure of making people (customers, shareholders, employees) happy, while leaders end up not being happy themselves. Third, customers level of trust towards the organisation, as argued by Laloux, consistently low.

1.2.2 Type of Organisation

The type of organisation also plays a role in the inability to innovate. No two organisations are alike. Large companies typically come in the form of private organisations, public organisations, Government/State-owned enterprises, and privatised companies. Each type of large companies has its own sets of issues in executing innovation. However, studies already show that Government/State-owned enterprises are unable to innovate because of the sheer size, bureaucratic, and direction set by the ever-changing political representatives elected to run such organisation (Borisova, Megginson 2011, Okhmatovskiy 2010, Musacchio, Lazzarini 2018a, Aharoni 2018, Aharoni 2000). In order to ensure that Government-based organisations can innovate, a privatisation route is a typical option (Khan, Ullah 2018, Magowan 1989, Xie 2012a). Nevertheless, privatised organisation, even with the intended changes in ownership/organisational structure, process/policies, work-culture and leadership, are facing similar results of unable to innovate.

1.2.3 Innovation and its Derivatives

The Concept of Innovation

As organisations around the world scramble to find their placing and deciding on which and what innovation strategy to adopt (or adapt), many have turned to academic papers to obtain insights and inspirations. More prominent academics produced books containing framework, approaches, and methodology for organisations to develop appropriate innovation strategies; for instance, the Blue Ocean Strategy (Kim, Mauborgne 2004) and Reinventing Organisations (Laloux 2014). Some of these organisations turn to academic papers and journals to find that the all-important “AHA” moment. However, academic papers are based on context, in which academicians continuously delve deeper into specific contexts to explore or investigate new phenomenon within the context; thereby, creating new contexts. It is in that fundamental process of value creation in investigating or exploring different contexts, arguably created a continuous debate on some key areas, such as basic description (or definition) or innovation (Puranam 2017, Pawanchik et al. 2011, Schreyögg, Sydow 2010a, Dougherty 2016, Schreyögg, Sydow 2010b).

Types, Level, Determinants, and Elements of Innovation

Additionally, there are different types of innovation, such as product innovation, management innovation, organisational innovation, technological innovation, business model innovation, process innovation or service innovation (OECD 2005), and level of innovation (i.e., incremental, disruptive, and radical innovation) that the leadership needs to be content with. Paired with what drives innovation (also known as determinants of innovation, such as innovation behaviours or incentives), further complicates how innovation can be developed in a large organisation. This is not inclusive of other organisational elements and/or aspects, such as the different types of leadership, corporate culture, work culture, intrapreneurship, corporate entrepreneurship, knowledge management, or even digitisation and digitalisation.

1.3 The Confusion and Role of Technological Innovation, Digitisation & Digitalisation

Organisations adopt technological innovation to remain competitive. The technological innovation could enhance organisations' efficiency and generate new technology-based products and services. OECD defines technological innovation as “new products and processes and significant technological changes of products and processes” (OECD 2005). More importantly, it has been proven that technological innovation contributes to organisation performance (Azar, Ciabuschi 2017).

Alternatively, in this age of digital economy, digitisation and digitalisation are two of the main components for transforming an organisation into a digital economy. By definition, digitisation is the process of converting traditional process into a digital format. In other words, digitisation is when technology-based platforms are developed to make the company more efficient. For example, a communication application that allows more efficient decision-making or knowledge-sharing. Meanwhile, digitalisation is the creation of new technology-based products and services that stem out of the digitisation process (Katz, Koutroumpis 2012, Bloomberg 2018). Digitalisation is also understood as the adoption (Katz, Koutroumpis 2012) of digital technologies to create and/or generate new sources of revenue centred around data and/or information (Schallmo, Williams 2018).

Both are tools used by all types of organisation to continue being relevant in the market. Digital adoption is more natural to start-ups (Rocha et al. 2019, Thomas et al. 2019). However, large companies are more familiar with technological innovation and inherently find it unsurmountable when it comes to **embracing the digital** economy (von Preußen, Beimborn 2019, Jathol, RÜling 2019). Technological innovation and digitisation and digitalisation appear to be the same and different at the same time. Nevertheless, technological innovation and digitisation and digitalisation are deemed essential tools and approaches to ensure large organisations continue to be competitive.

1.4 The Problem

Cumulating all of the above, (i.e. how organizations are detached, the type of organization, and the basic understanding of innovation) has resulted in repeated confusion. Studies also showed that some large companies tried to emulate the more nimble and agile start-up (Ries 2010). This is like putting a spare peg in a round hole. Trying to figure out which strategy to adopt is an ever-growing frustration as all strategies was built on the notion that if “it worked for them, it should work for me”. Some senior management actually convince themselves that their strategies are working, but at the working level, they tell a different story.

The fundamental problem lies in what was already mentioned above—confusion and disjointedness. An organization consists of complex structures and elements required to ensure that business undertakings can be conducted to meet the expectations of stakeholders (Rosenzweig et al. 2019). These complex structures and elements make up the nervous systems of an organization. Therefore, in order to develop a working innovation strategy, studies of innovation need to be addressed from a more holistic context by combining all relevant perspectives (Von Bertalanffy 1956) .

The next problem lies on the starting point, as every journey lies a starting point. In the case of this study, the starting point is with the identification of the type of organization. A **privatized state-owned enterprise** was selected due to the added complexity this type of organization brings, such as, the work culture, mindset, leadership, ownership or organizational structure or process, and policies. Additionally, studies already showed that a state-owned enterprise has a tendency to retain its legacies post-privatization and has little or no indication of transforming itself effectively (Khan, Ullah 2018, Woon 1989, Antoncic, Hisrich 2003, Xie 2012). Thereby, making the transformation an uphill battle.

Simultaneously, the OECD via its Innovation Handbook described organizational innovation as the introduction of *(i) significantly changed organizational structures, (ii) the implementation of advanced management techniques, and (iii) the implementation of new or substantially changed corporate strategic orientations* (OECD 2005). The definition given by the OECD appear to be touching the key changes that privatization was meant to address. However, the problems identified earlier persist in the context

of a privatized state-owned enterprise and organizational innovation. Throughout more than two decades, the study of organizational innovation and privatization has taken its specific individual path in the researchers' attempt to better understand how each brings value to an organization. This separate path of scholarly studies suggests that the two are mutually exclusive and has its own uniqueness that may not cross path fully (Hodge 2018, Wagner 2018, Musacchio, Lazzarini 2018, Cuervo-Cazurra 2018, Zhou 2018, Hong et al. 2015, Glor 2015a, Xie 2012b, Attafar et al. 2014). However, this thesis argues that organizational innovation and privatization are not mutually exclusive. There are similarities between the two.

P2: Privatization can be considered as an act or a form of organizational innovation.

The current understanding of organizational innovation can be challenged due to the inconsistency of how organizational innovation is conceptualized (Puranam 2017, Farouk et al. 2016, Kasemsap 2014, Shi et al. 2015, Van Lancker et al. 2016, Wang, Shi 2013, Azar, Ciabuschi 2017, Glor 2015b, Damanpour, Evan 1984). This is due to the different perspective or more accurately, different context that organizational innovation is put under (the numerous different context organizational innovation is explored or investigated). This, in itself, is already a problem that needs to be looked into even though it is not a new norm. The next proposition for this study is to provide a description of the organizational innovation concept. The answer to this proposition would take shape before regarding the potential relationship between organizational innovation and privatization.

P1: A new sophisticated conceptualization and understanding of organizational innovation that is more cohesive and holistic.

The second over-arching problem lies with the tools and approaches adopted, namely technological innovation, digitization and digitalization. Both area of knowledge has taken its own path, very similar to organizational innovation and privatization. But purely from the definition, it can already be seen that there could be some form of intersection between technological innovation and digitization and digitalization. The

third proposition delves into this potential relationship between technological innovation and digitization and digitalization.

P3: Technological innovation can be considered as an act or a form of digitization & digitalization.

The final problem lies in the organization itself and how it is a complex system comprising of different elements that makes an organization work. Studies on **systems theory** argued that an organization is a living being and that all elements in an organization, such as leadership, knowledge management, work culture, process and/or policies are dependent and interdependent. These elements of an organization are active, proactive, and reactive where every element play its role in driving the organization forward. And while senior management and leaderships of an organization believes that everything needs to be structured in order to achieve an end game (and they will stick to a selected methodology), Bertalanffy (1956) argued otherwise that there is no specific best way to reach a goal, whether in a structured or unstructured manner.

That being said, studies on organizational innovation, privatization, technological innovation and digitization and digitalization, have not really intersected to give a clearer understanding of how, if any, these areas relate to one another with one common holistic understanding of organizational innovation. Yes, there have been some research on organizational innovation and privatization (Xie 2012), organizational innovation and technological innovation (Azar, Drogendijk 2016), privatization and technological innovation (Lin, X. et al. 2019), privatization and the digital economy (Lin et al. 2019) and finally organizational innovation and the digital economy (Pogodina et al. 2019). However, there appears to be a lack of focus on trying to bring all the elements together.

The fourth and final proposition addressed this problem is, what is the connection between organizational innovation and privatization has with technological innovation and digitization and digitalization, and how does it impact organizational performance?

P4: There is a significant connection between organizational innovation and privatization with technological innovation and digitization & digitalization towards organizational performance

1.5 The Research Question, Aim, and Objectives

The main research question of this thesis is *“How are organizational innovation and privatization related? How are technological innovation and digitization & digitalization related? What is the impact on firm performance?”*

A further breakdown of the above research:

- (i) What is organizational innovation?
- (ii) How are organizational innovation and privatization related?
- (iii) How are technological innovation and digitization & digitalization related?
- (iv) What is the impact on firm performance?

Research Aim:

The overall aim of this thesis is to understand the relationship between organizational innovation and privatization; and the relationship to technological innovation and digitization and digitalization and their effect on organizational performance.

Research Objectives:

- *To better understand the concept of organizational innovation*
- *To assess the relationship between organizational innovation and privatization;*
- *To assess the relationship between technological innovation and digitization and digitalization and how a privatized state-owned enterprise leverages on organizational innovation for technological innovation/digitization and digitalization*
- *To evaluate how organizational performance is impacted by a privatized state-owned enterprise’s organizational innovation and technological innovation/digitization and digitalization*
- *To make recommendations on potential implementations for organizations and future research*

1.6 The Structure of this thesis

This section illustrates the overall structure of the thesis and describes the objective of each chapter.

Chapter 1 – Introduction

This section discusses the background of this research and the motivation behind this research. Definitions of all elements of this research were also presented, followed by the research framework and proposed contributions to the existing body of organisational innovation knowledge.

Chapter 2 – Organisational Innovation

Chapter 2 undertakes an in-depth understanding of organisational innovation. This is achieved via a systematic literature review. The chapter delves into organisational innovation's definition, its determinants, how organisational innovation is measured and its outcome; capped by looking at the organisational innovation theories. A holistic view of organisational innovation will allow a better understanding of organisational innovation; hence, allowing a better recommendation of an answer to one of the research questions, namely research question one.

Chapter 3 – Theoretical Background: privatisation, technological innovation, digitisation and digitalisation

This section brings together all body of knowledge, namely privatisation technological innovation, digitisation and digitalisation. The chapter discusses and describes the current understanding of the theoretical background and how they could be inter-related. Among others, this chapter covers the definitions, theories, and factors that would be summed up in a research framework. More importantly, this chapter also shed light to research question two: how, if possible, is the relationship between organisational innovation and privatisation—is privatisation a form/aspect of organisational innovation?

Chapter 4 – Methodology

This chapter elaborates on the research design to answer the research questions and to meet the objectives of the research. A provides a general overview of possible strategies available and a more detailed explanation of the desired design of this research. **The analysis of the possible approaches leading to the research design explains the area for obtaining opinions from a case study** (Yin 2003, Saunders, Lewis 2012). While a case study approach may be debatable, one of the values of this research is its exploration of a specific phenomenon; thus, rendering this research design as the best strategy.

Chapter 5 – Findings and Discussions

Chapter 5 provides the narratives from the opinions obtained from the field. The narratives will show how organisational innovation, privatisation and internationalization intertwined. This chapter also provides a more critical view of the findings obtained by providing critical discussions.

Chapter 6 – Conclusions

This final chapter reiterates the fundamental and perspective used in devising the research framework, revisits the discussion in all chapters, underlines the key findings of this study, and its contribution to the body of knowledge. This section also identifies some limitations of the research and recommends some possible future areas of research.

CHAPTER 2: ORGANISATIONAL INNOVATION

2.1 INTRODUCTION

The main objective of this chapter is to answer the question: what is organizational innovation? Organizational innovation has been studied for the past few decades, yet, the basic understanding of what organizational innovation is has eluded many scholars (Puranam 2017). By doing a simplistic search on google resulted in 762,000 results. While a direct search on google scholar gave back a result of a slightly smaller number of articles, i.e. 164,000. Majority if not all of the return results gave some form of description of organizational innovation. Some examples that can be described here covered organizational innovation as identifying and improving the lack of productivity and effectiveness on how products and services are developed and or managed (*Walker, Damanpour, & Devece, 2011*). Another example described organizational innovation as the ability of an organization to move past current practice modes of operations to ensure that the people are more creative in managing new products and services (Lee, 2006). One last example is how organizational innovation is viewed as ideas stemmed and developed that can result in product development, processes, and or services that are novel to an organization at the time of conceptualization (Thompson, 1965).

The description above only solidifies the argument that the attainment of an across the board description is still elusive. Arguably, the main rationale behind the lack of unanimity is possibly due to the nature of the research conducted itself. In general, research is based on context; and context refers to elements such as leadership, knowledge management, technological innovation, digitalization, and digitization. Connecting organizational innovation to all these elements are undeniably important to create a focus on the research. However, the continuation of coming up with different suggestions of what organizational innovation is will not only create a convoluted understanding of organizational innovation, it will also not bring any value to practitioners.

While the context-based definition is arguable critical to the specific research requirements, this, by no means should stop the primary question of what organizational innovation is in a more general and over-arching. An over-arching

description would not only be valuable to practitioners but could also provide and act as an anchor for context-based definitions.

Therefore, bringing all the more accepted studies (those cited more) into one comprehensive study to look at, for example, its definition and measurements in a more holistic perspective will give light to this question.

A systematic literature review was conducted to seek the answer to basic questions due to its **robust** approach, that is, as the name suggests, **systematic**. A more detailed description of the process prescribed by (Cooper 2010) will be outlined in the next section of this chapter.

Additionally, a systematic literature review is essentially a scientific or technically driven process. The thought process behind systematic literature is based on the following principals:

- To reduce the massive amount of information attainable to a smaller more palatable for more concise and precise analysis and discussion
- A systematic literature review provides the basis for a more identifiable and justifiable approach to further refine the analysis
- It is a well-organized process that follows strict scientific methodologies or processes.
- It ensures consistency
- A systematic literature review is argued as being accurate or essentially it reduces the level of biasness to ensure that a better perception of reality is attainable.

The study of organizational innovation is inundated with data dated back to the 1960s. By a simple search on GOOGLE on the term "organizational innovation", a total of 707,000 results came back. While when doing a search on GOOGLE Scholar on the "organizational innovation", a total result of 147,000 papers. Finally, SCOPUS yielded 91,313 articles. Without specific strategies and robust processes, it would be almost impossible to evaluate a review to answer specific research questions. A systematic literature review ensures a more focused analysis of a specific topic by narrowing down a large array of contexts on organizational innovation to focus on a specific topic.

2.2 Organisational Innovation

2.2.1 Innovation

Many large organisations in the world today are facing challenges in keeping up, maintaining, and/or growing their market share (Richard et al. 2009). More so for technology-based organisations, as these challenges are rapidly coming from new competitors that do not recognise borders; be it physically, economically, or virtually. These competitors are coming from global start-ups that are either taking advantage of the existing technology or creating new and disruptive technology. Such start-ups are a real threat to the large technology-based incumbent organisation, especially if the organisation is a privatised state-owned enterprise (Deloitte, 2017). An example of such a disruptive start-up is MONZO and how MONZO is disrupting the personal banking sector (Feltwell et al. 2019, Zachariadis, Ozcan 2017).

As a result of this continuous onslaught, large organisations turn to innovation as a means to bring their organisation forward and to remain competitively relevant in the global market. Innovation plays a crucial role in the continual growth of all size and type of organisations. Innovation opens up the mind to look into potential opportunities that lie ahead. These innovations come in many shape and forms, such as new products, new services, new management approach, new processes, new policies, and new technology (OECD, 2005).

Particularly, in the modern world of the digital age, competitions could come from all angles regardless of geographical or political boundaries. Nowadays, both for profit and non-profit organisations are facing similar if not, more complex issues compared to a mere five years ago. These complex issues can come in various shapes and forms, anything from human resource management (such as embracing or dealing with the millennials), knowledge management (such as adapting to the power of the social media and how knowledge can be obtained or shared), fin-tech (such as bitcoin, but more specifically, the technology behind bitcoin, i.e. the ledger-less system), funding (such as the booming crowd-based funding) or the ever-growing vicious internet of things. Among the many different types of innovation, the OSLO Manual of Innovation (OECD, 2005) breaks it down into four different classifications, namely process innovation, product innovation, organisational innovation, and marketing

innovation. The OSLO Manual continues to distinguish that there are technological (consists of products and process innovations) and non-technological innovation (refers to marketing and organisational innovations).

Previous studies examined the impact of technological innovation and non-technological innovation on an organisation. There were mixed findings; some data showed that there were adverse and favourable impacts on exports (Radicic, Djalilov 2019) and the intensity required to make a change (Martin-Rios, Ciobanu 2019). More importantly, how technological innovation and non-technological innovation empowers an organisation to grow more rapidly in the global market (Lee, Y. et al. 2019)

There is no real manual nor instruction book on how to manage such vibrant and volatile change. Indeed, it is impractical and unprofessional to expect any recipe to be developed to help the senior management team to deal with these rapid changes. While researchers and consultants continue to argue and propose possible models, arguably, there is no such thing as a “one show fit all” approach.

As an analogy (despite an analogy is generally unacceptable in an academic paper), while one peeled the onion further to find its uniqueness, one may fail to realise that the onion on its own may taste nice to some; but, it might taste better when it is matched and mixed with other types of food. What this analogy suggests is that, while the models and theories developed by researchers over the years are unique and interesting, both academically and practically, it has no real intrinsic value as it is only seen from its pure single lenses (Puranam 2017).

2.2.2 Organisational Innovation

The OSLO Manual mentioned that organisational innovation is one type of innovation. A definition by the OSLO Manual (OECD, 2005) describes organisational innovation in the firm includes:

- the introduction of significantly **changed organisational structures**;
- the **implementation of advanced management techniques**;
- the implementation of **new** or substantially **changed** corporate strategic orientations.

In principle, the definition may also be construed as organisational change¹, but **organisational change counts as innovation only if there is a measurable change in output, such as increased productivity or sales** (OECD, 2005).

Arguably, the definition of organisational innovation today can be debated and challenged (De Vries, Bekkers, & Tummers, 2016). This is evident from the persistent lack of an agreement on a single unified and acceptable definition (Armbuster et al., 2008). The continuous disagreement of the fundamental meaning of organisational innovation is possibly due to the different perspective or context of how organisational innovation is addressed, which is typical. Organisations can be differentiated in many ways, such as by size, the number of employees, or industry. Fundamentally, this is not wrong. However, it would be advantageous to have a unified definition that is generic and all-encompassing, yet straightforward that it can be understood and refined further according to the change of times, instead of the change of perspective, especially when the knowledge is being scrutinized. Specific definitions based on the areas or context of research can be proposed or developed based on the study done. Nevertheless, perhaps there is a need to have a pragmatic starting point.

¹ Organisational change is defined as “a deliberately planned change in an organisation’s formal structure, systems, processes, or product-market domain intended to improve the attainment of one or more organisational objectives” (Lines, 2005).

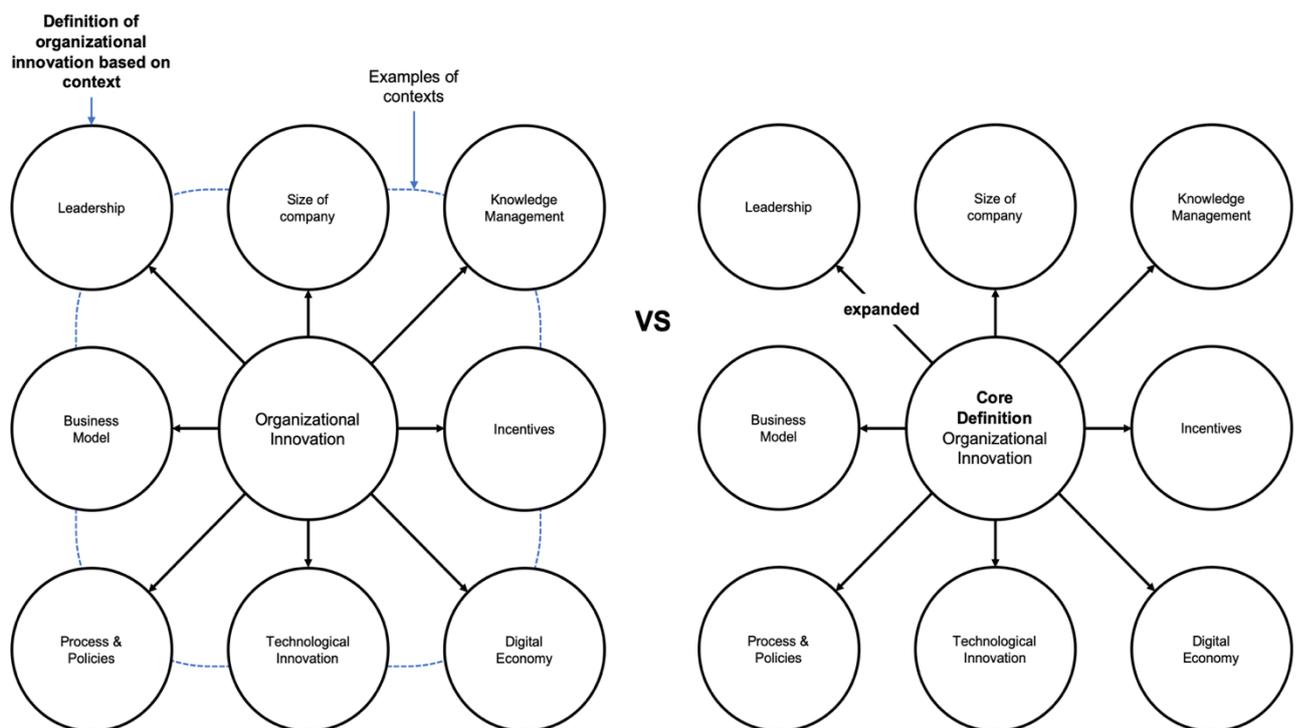


Figure 1: Context-Based Definition Versus Core-Based Definition of Organisational Innovation
(source: author)

Chapter 2 challenges several well-known proposition and conventions about organisational innovation by taking on a more holistic or big-picture perspective in analysing the studies. The systematic literature review offers a **vantage point** to looking back and seeing the possible future; an innovation in its own right (Deloitte, 2017). A vantage point, which could bring a more holistic approach for the understanding of organisational innovation (Kristensen 2016).

2.2.3 A Systematic Review of Organisational Innovation

2.2.3.1 Overall Strategies

The systematic literature review takes on three overarching strategies.

Strategy 1: Selection of papers

The literature works selected for review are based on the approach used by (Cooper 2010). A more in-depth explanation of the chosen literature and its sub-strategies will be elaborated in the following sub-sections.

Strategy 2: Cluster-based data analysis

The second strategy is concerning how the collated data will be analysed. In order to allow a more holistic view of the extracted data, a cluster-based analysis will be adopted (Maskell, Kebir 2006, Pan, Zhao 2016, Camisn et al. 2017). Scholars argued that a cluster-based approach in analysing data would provide novel ways of gaining new knowledge by looking at how the elements interact with one another (Maskell, Kebir 2006, Lorenzen, Maskell 2005).

Strategy 3: Inter-relation

The final strategy is looking at how the identified clusters relate to one another by putting it all together.

2.2.3.2 Literature Search

The Search

First, an electronic search was undertaken using SCOPUS. SCOPUS was used due to its massive database of **peer-reviewed literature**, including abstracts and citations. Furthermore, SCOPUS international reach allows the researchers to cast a wider net to obtain as much data as possible before narrowing it down. Initial search used both the term [**organisation* AND innovate***] to ensure that all derivatives of spelling and derivatives would be included. The result of this search string resulted in more than 91,000 studies with the more recent study conducted in January 2018 and as far back as December 1932.

Inclusion Strategy

Next, the following inclusion strategy was undertaken:

- Narrowing the subject matter down to the following to ensure that the focus remains on organisations, business and organisational performance:
 - o Business Management and Accounting

- Economic, Econometrics, and Finance
- Decision Science
- Multi-disciplinary
- Narrowing the types of articles selected were peer-reviewed or had at least a third party reviewing (as in editors of books):
 - Article
 - Conference paper
 - Review
 - Book Chapter
 - Book

Accordingly, this strategy narrowed the results of the search string to just over 24,000.

Publication Ranking

Third, the search was narrowed down further by selecting publications ranked **three stars and above**, according to the ranking set by the Association of Business Schools (ABS), focusing on the subject of innovation. The search resulted in 892 publications with the oldest publication was in October 1971, and the most recent was in September 2017.

Exclusion Strategy

Finally, upon going through all 892 journals, the final exclusion strategy was to take out any possible duplication and areas about national innovation systems, as they are outside the scope of this review. Thus, the search ended with 250 articles that would be used in this systematic literature review.

2.2.3.3 Eligibility Criteria

Studies that fulfilled the following criteria were selected for the systematic literature review report:

- Field
 - The studies chosen must deal with organisational innovation in general. The main reason for this criterion is to ensure that the literature review covers a broad perspective of organisational innovation.
- Topic

All studies must have the words innovate* and/or organisation* in its title, abstract and keywords.

- Study Design

The studies selected must be empirically performed, and all research designs were allowed (for example, case studies, interviews, questionnaires, experiments, model testing, and action-based). Systematic literature reviews were omitted to prevent any possible duplication and probable pre-set judgements (Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004).

- Year of Publication

Studies included for review covered the entire spectrum of the results, that is from October 1971 to September 2017.

- Publication Status

Only the peer-reviewed documents from well-established publishers in the field of innovation, as recommended by ABS, were included.

2.2.3.4 Study Selection

In total, more than 91,000 papers were screened. Based on the criteria mentioned above, the number of papers was down to 892 studies. The selection process is depicted in Figure 2.

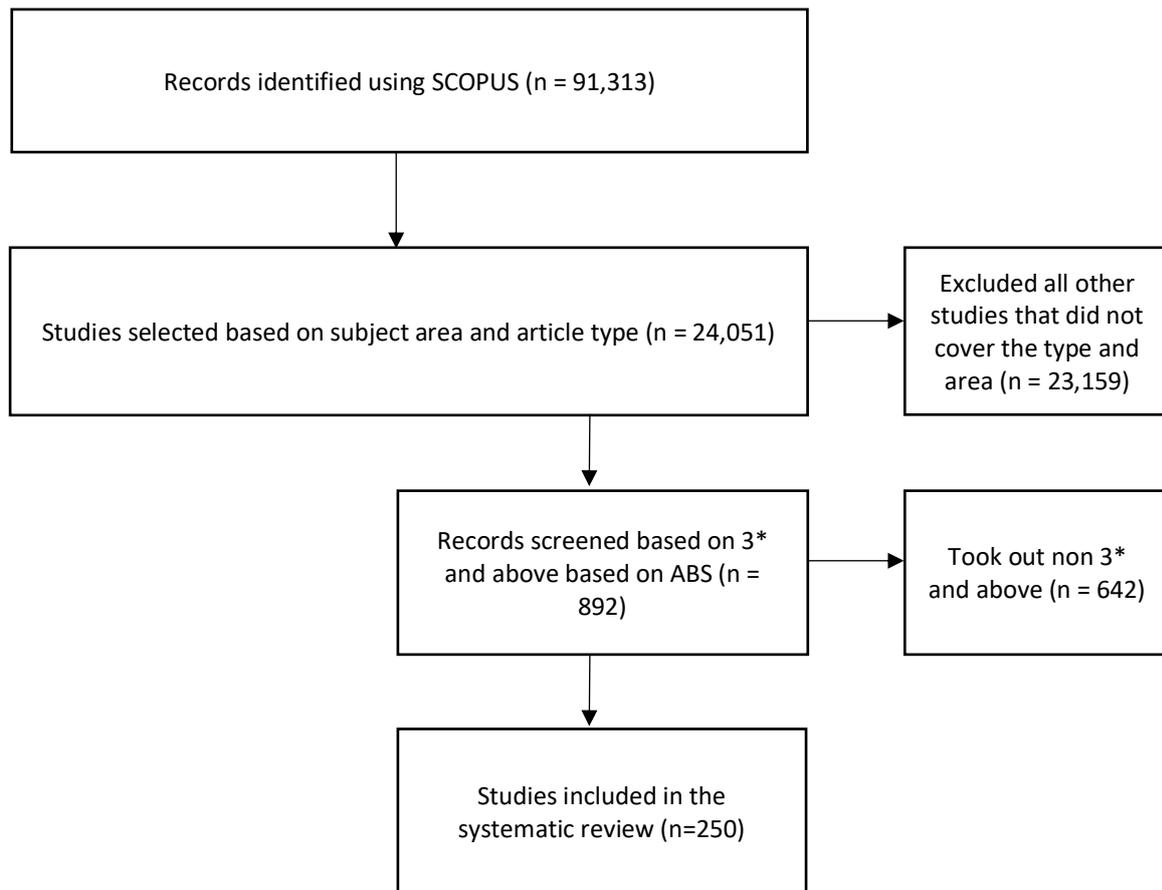


Figure 2: PRISMA flow diagram
Source: (Moher et al. 2009)

Data from all the finalised articles were extracted and summarised into a table format, which includes the name of author(s), publication year, title, journal, methods used, perspective, definitions, antecedents, determinants, and findings.

2.3 RESULTS OF SYSTEMATIC REVIEW

2.3.1 Description of Data Obtained

Following the final list obtained from the process undertaken in the systematic literature review, it could be seen that in the earlier days of the study on organizational innovation, there were not much interest in the topic as there are almost negligible number of papers published. The topics then were essentially covering organizational innovation from the perspective of technological innovation, national R&D, innovation process, globalization, quality management, new technology-based firms and policy development.

In contrast, starting circa 1998, there was a noticeable spike that could be argued, acted as a potential spike in the interest of organizational innovation. This was at the time that the internet was initially introduced to the world and became more commercial able. There was a very noticeable spike that took place in the year 2003 that lead to an increase of seventy one percent (71%) in 2004! The topics then was addressing areas such as the locality of innovation, innovation patterns (be it supplier dependent, user driven, mission oriented or R&D dependent), government policies, environmental innovation, supply chain innovation and the diffusion of technological innovation were among the many addressed. In 2004, the areas that was put under the microscope were addressing topics covering, such as, the challenges faced in a dynamic environment, the ability of an organization to be more dynamic in dealing with R&D, the strategic direction of an organization with regard to organizational innovation, a multi stage approach in how to come up with ideas for new products concepts amongst multi-functional teams and emerging technologies, just to name a few. However, there was a noticeable drop in published journals in consecutive years before hitting 2010 when there was an increase in publications once again.

There could be a multitude of reasons as to why there appears to be no growth, then a steady incline with a slight dip before hitting high in the mid 2000's before a tremendous dip before showing a more slowly incline again starting 2008. This movement of publications could be seen better via the graph below.

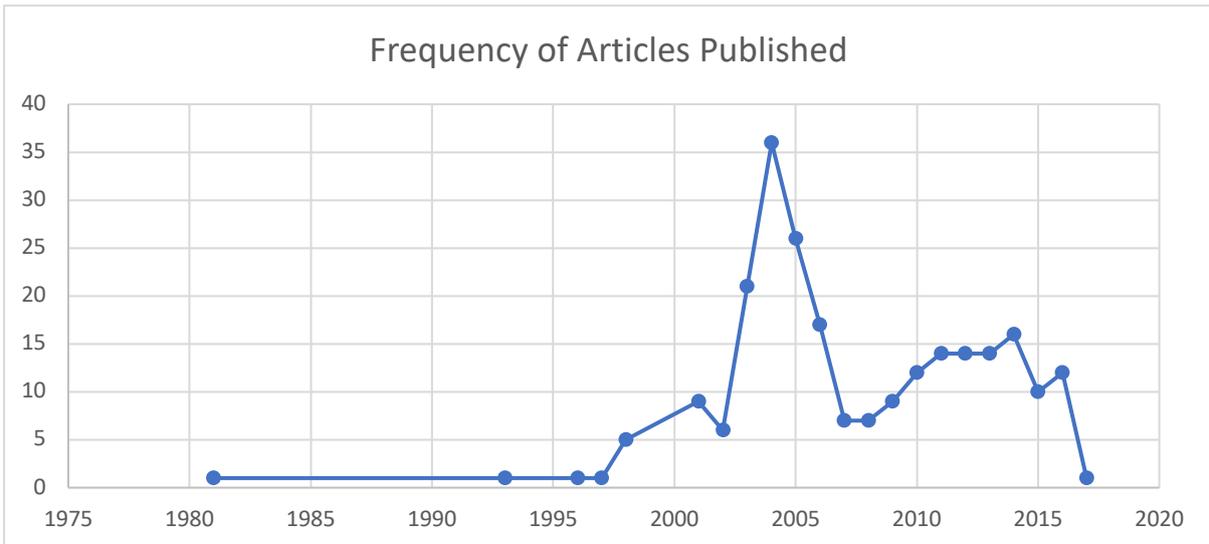


Figure 3: Frequency of Articles Published
(source: author)

From a different perspective, As the systematic literature review only focused on the BAM's three star and above, there were only four publications that was considered, i.e. The Journal of Product Innovation Management, R and D Management, Research Policy and Technovation. The distribution of the articles undertaken in the systematic literature review could be broken down as follows where the majority of the publications came from the Journal of Product Innovation Management, followed by the Research Policy. Coming closely behind Research Policy was the Technovation. Leaving the R and D Management at the tail end. This can be seen in the pie graph below.

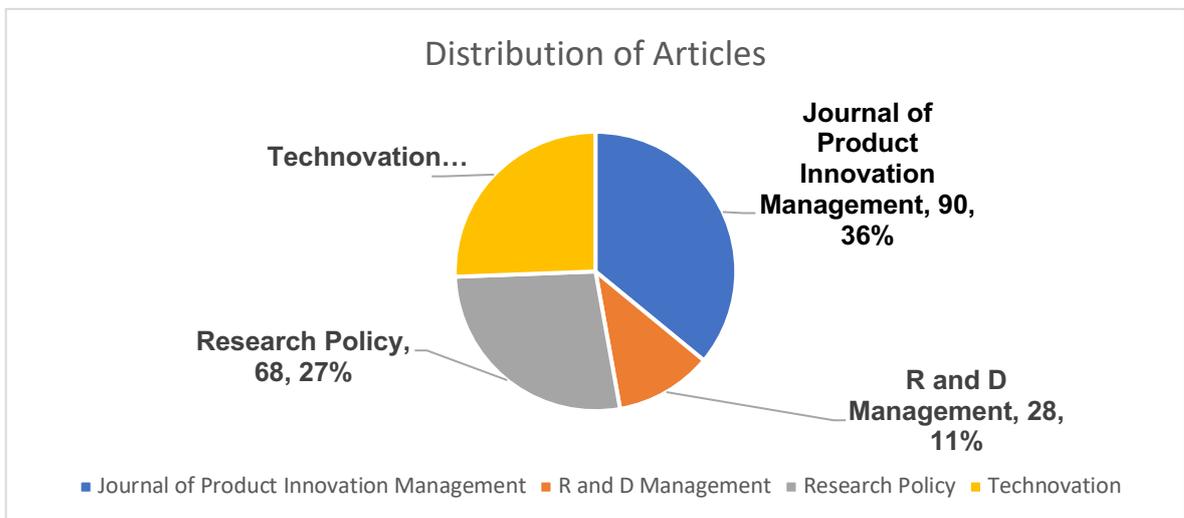


Figure 4: Distribution of Articles
(source: author)

This by no means indicate that one journal is better than the other. All it means is that the topics and area of research was more pertinent to the journal. And in that, it does possibly indicate that the majority of study was focused at the Journal of Product Innovation Management, due it the journal's focus on multi and inter disciplinary areas that seeks to advance theoretical contributions in the area of management of innovation and knowledge of product development.

2.3.2 Analysis of papers Obtained

Based on the journals obtained in the systematic literature review, a cluster-based analysis was adopted to understand the concept better. From a cluster-based analysis, the process of generating new knowledge is complicated yet straight forward. Firstly, from the tables (as per the Appendix), specific keywords were extracted from all the definitions obtained. The keywords extracted can be broken into two main categories, i.e. "NEW" and "TO". "New" refers to something novel while "to" an action that needed to be taken. The general keywords that was identified were:

1. NEW:
 - a. and improved products
 - b. organization form
 - c. service
 - d. process
 - e. procedures
 - f. systems
 - g. behaviors
 - h. process technology
 - i. organizational / firm structure
 - j. administrative systems
 - k. plans
 - l. advance management techniques
 - m. corporate strategic orientation
 - n. industry structure
 - o. production form

- p. capabilities
- q. methods
- r. organizational practices

2. TO

- a. Generate
- b. Acceptance
- c. Implement
- d. React
- e. Proactive
- f. Strategize
- g. Propose
- h. Adopting
- i. Bring an idea or concept into final form
- j. Maintain a firm's competitive advantage
- k. Diffusion

Firstly, the first keywords under **NEW**, by color coding the keywords, as per table below, it could be further clustered into four main clusters, i.e.

- New and improved products and services
- New work culture
- Process and procedures
- Organizational structure

and improved products	✓	<table border="1"> <tbody> <tr> <td>New and Improved Products and Services</td> </tr> <tr> <td>New Work Culture</td> </tr> <tr> <td>New Process and Procedures</td> </tr> <tr> <td>New Organizational Structure</td> </tr> </tbody> </table>	New and Improved Products and Services	New Work Culture	New Process and Procedures	New Organizational Structure
New and Improved Products and Services						
New Work Culture						
New Process and Procedures						
New Organizational Structure						
organization form	✓					
service	✓					
process	✓					
procedure	✓					
systems	✓					
behaviors	✓					
process technologies	✓					
organizational / firm structure	✓					
administrative systems	✓					
plans	✓					
advanced management techniques	✓					
corporate strategic orientation	✓					
industry structure	✓					
production form	✓					
capabilities	✓					
methods	✓					
organizational practices	✓					

Table 1: Cluster-Based View of organizational innovation
(source: author)

Looking at the newly identified knowledge obtained from the cluster-based analysis, it could be argued that the new and improved products and services is an end result and not necessarily a change. While a new work culture, organizational structure, process and procedures can be further clustered into one major cluster called **change**.

It could also be argued that a new organizational structure could be addressing both how an organization is structure and ownership structure. The final argument here is that another major change would be the change in leadership. As a change in leadership could be deemed as one of the determinants to organizational innovation (Kraiczky, Hack, & Kellermanns, 2015a; Subramanian & Nilakanta, 1996; Read, 2000).

Therefore, it could be concluded that there are four aspects of organizational innovation, i.e. the change in work culture, organizational structure, process and procedures or policies would lead to the introduction of new and improved products and services.

Based on the “TO” cluster, the keywords derived from the description of organizational innovation can be clustered into a sequence of events. This sequence of events are as follows:

Step 1: To be proactive and or reacting to surrounding (both external and internal changes)

Step 2: To strategize and generate ideas

Step 3: To prepare and propose

Step 4: To implement / execute

Step 5: To accepted / adopt

Step 6: To diffuse (to roll out)

All the above steps are to ensure and or maintain the firm’s competitive advantage by bringing an idea or concept into its final form.



Figure 5: Cluster-Based View of the “TO” Cluster
 (source: author)

2.3.3 Conceptualisation of Organisational Innovation

The first definition came from Schumpeter in late 1920 (Hanson & Wakonen, 1997), which emphasised on the keyword uniqueness or novelty. The findings on Schumpeter (Schumpeter 1934) show that he accentuated the word “*new*” by having it at the front and centre, by repetition within the definition proposed, such as *new* product, *new* process, *new* method, and *new* mindset. In essence, Schumpeter believes that organisational innovation is about doing things differently as denoted by the word *new* within his proposed definition. However, it could be argued that doing things differently is not the same for all types of organisation (reiterating the rationale behind the continued deliberation on the understanding of organisational innovation). Moreover, to complicate the matter of defining organisational innovation further, Hanson and Wakonen (1997) argued that “*it is practically impossible to do things identically*”, which can be interpreted that anything different (as contended by Schumpeter of doing new things) and any change is novel; hence, an innovation. In a nutshell, any type of changes could easily be argued as organisational innovation or just an innovation. Therefore, it is essential to ensure that the proposed definition is generic enough for broader application, not unique to context or circumstance; but unique enough to allow it to be expanded and used in different situations or context. Different situation or context, which could be in the form of necessity (Pittaway, Robertson, Munir, Denyer, & Neely, 2004), intention (Lansisalmi, Kivimki, Aalto, &

Ruoranen, 2006), benefit (Camisn-Zornoza, Lapiedra-Alcam, Segarra-Ciprs, & Boronat-Navarro, 2004), execution (Hobday, 2005) or diffusion (Holland, 1997).

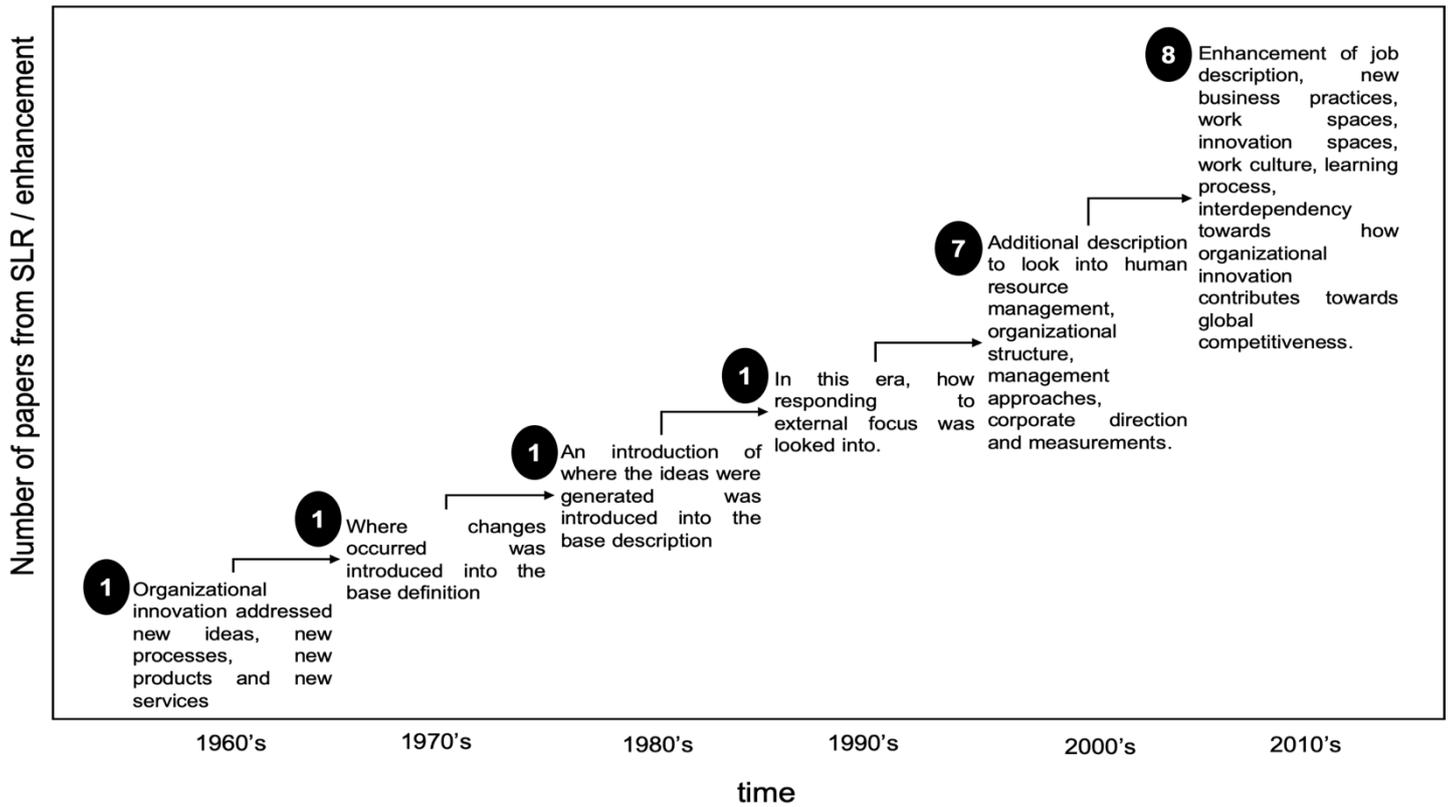


Figure 6: Definition of Organisational Innovation over Six Decades²
(source: author)

The graph above³ encapsulates the description of organisational innovation based on the data obtained from the systematic literature review. For six decades, it was evident that there were additions to how the concept of organisational innovation was described. Specific enhancement, which included the key element of **changes** is a critical change that took place in the early 1970s. The inflexion point of how organisational innovation was explained started in the 2000s. This is where more papers were published with an introduction of a new specific description, which allowed for a better understanding of organisational innovation. This inflexion point could be due to how technology (through technological innovation) took prominence and started to play a more prominent role in how organisation transforms itself, that is,

² Data obtained from systematic literature review only, hence the attainment of definitions scoped down to search, inclusion and exclusion strategies discussed earlier in this chapter.

³ summarised from a full description of organisational innovation that can be found in Table 1 in appendix 1 below

how potentially, organisational innovation was enhanced and contributed towards the development of new technological innovation.

While each of the descriptions obtained from the systematic literature review was context-based, the description suggested a holistic intonation. It means that while enhancement of the definition was proposed based on a specific context of the research, from a vantage point, such as the diagram above, it resulted in a more comparable point of view (more holistic). This, in turn, further enhances the concept of organisational innovation.

Among the nineteen definitions obtained from the systematic literature review, the definition given by the European Commission found in the OSLO Innovation Handbook (Paris, 2005), offered the most pertinent understanding of organisational innovation. The OSLO Handbook described organisational innovation by addressing the institution of significant **change** and how an organisation is **structured**. It also mentioned how **different management styles and approach** is required post-change. The definition provided also focused on how crucial it is to **execute different** or **new** or considerably **different strategic orientation**. Additionally, the OSLO Innovation Handbook also stated that in principle, to be able to mark any types of change as organisational innovation, **the changes in the output and outcome of the change must be measurable, for instance, in terms of increased sales revenue, increased in team productivity, or increased in new products or services.**

Arguably, there are several missing elements of how organisational innovation was described over the years. These missing elements include the idea that innovation is iterative; that is, innovation is chaotic, susceptible to failure, reckless, and competitive (DeStefano 2019, Maldonado-Guzmán et al. 2019, Tatum, Funke 1988). Another missing element in the description of organisational innovation is the idea that there is a continuous need for problem-solving (Oeij et al. 2018, Rammert et al. 2018, DeStefano 2019) and improvisation (Vera, Crossan 2004, Moorman, Miner 1998, Crossan, Sorrenti 2002, Pina e Cunha et al. 1999) in the development and refinement of ideas. The final missing element is the element of **play** (Verbong et al. 2019, Jensen, J. F., Sørensen 2018, Cui, Wu 2018). The element of play refers to the ability

of the organisations to embrace quick and rapid learning process through prototyping (Dabholkar 2009, Liem 2018, Brown 2008).

These three essential elements (iterative, problem-solving/improvisation, and play) are critical for understanding organisational innovation due to their nature in trying to make sense of innovation itself (Evans 2018, Oeij et al. 2018). Therefore, the inclusion of these new elements is arguably imperative.

However, from a cluster-based perspective, the definition obtained from the systematic literature review could be grouped into (i) new ideas (structure, approach/process/policies, direction, products and services in a creative manner), (ii) reaction (from internal or external forces), (iii) measurements (intangible, such as work-culture and tangible, for example, increased profits), and (iv) inter-dependency. Among the four-cluster identified, the concept of **new** was given priority in terms of how organisational innovation was described, and this is in-line with the description provided by Schumpeter.

Therefore, by combining the identified clusters stemmed from the data obtained, and the missing elements, the proposed integrated and more holistic definition of organisational innovation is as follows:

“Organisational innovation is an iterative process that integrates strategising, playing with improvisation in adapting or adopting novel ideas that will contribute towards the continuous growth of the organisation.”

This definition engulfs several aspects of organisational innovation, including:

- **Iterative** refers to the idea that organisational innovation is **not static and linear** and chaotic in nature
- The idea that organisational innovation involves new ideas, which include both **incremental and radical/disruptive** (for example, new features of a product, a new product, a refinement of process, and an introduction of a new policy)

- The idea that for organisational innovation to be effective, individuals within the organisation at all levels must be **tuned into the ever-growing changes in the market and internal conditions**
- The idea that organisational innovation is **a tool to ensure the growth** of the organisation
- The word **play** brings in several connotations to the description by introducing the need to **learn fast and fail fast** mindset.
- The idea that organisational innovation is about **constantly monitoring and reacting** to **internal** (within the organisation) and **external** (market and community) **forces**.
- The idea that **tangible** refers to **measurable contribution to the organisation**, for example, sales, new products, or services and international presence.
- The idea that **intangible** refers to, for example, teamwork, collaboration, knowledge management, or communication.
- The idea that organisational innovation, in this proposed definition, also **addresses change and constant change**.

2.3.4 Measuring Organisational Innovation

Similar to the definitions of organizational innovation, measurements of organizational innovation also play an important role in contributing to a better understanding of organizational innovation. Furthermore, by better understanding how organizational innovation is measured, a more thorough comparison can be made with how privatization is measured.

It is important because it provides a means to track the progress of the overall innovation efforts. Based on the selected studies obtained in this literature review, out of two hundred and fifty studies, sixteen studies addressed how organizational innovation should be measured. Notably, the year 2014 and 2015 has the most studies on how organizational innovation is measured. The sixteen studies were selected by looking at the title and objectives (found in the abstract of the papers) mentioned in the two hundred and fifty papers.

Utilizing the cluster-based analysis, the following keywords were initially identified:

- 9 scales of measurements
 - Leadership
 - Support
 - Tasks
 - Behavior
 - Project rising
 - Project doing
 - Knowledge and skills
 - Information and communication
 - Technological benefits
 - Technological efficiency
 - Technological magnetism
 - Technological specificity
 - Infrastructure clarity
- Strategic orientation
 - Direct
 - Indirect
 - The total and specific perspective
- Product innovation relationship
 - Breakthrough
 - Incremental
 - Development cost
 - Development period
 - Development
 - Speed
 - Overall product success
- Open2-Innovation
 - Performance rating
- Diffusion activity
 - Outside- in
 - Inside-out
 - Coupled activity
- Innovation performance

- New product and services innovation
- New product or services success
- Customer performance
- Financial performance
- Number of inventions generated
- Impact on technical domain
- Career success
- Technology visioning
- Idea encouragement
- Diversity encouragement
- Convergent thinking
- Ideas to Execution
 - Innovation work behavior
 - Patent submission
 - Idea submission
 - Industrial capabilities
 - Creativity skills
 - Job expertise
 - Operational skills
 - Motivation
 - Contextual knowledge
 - Environmental
 - Job control
 - Support for innovation
 - Number of external ideas
 - Brand perception
 - Perception of innovativeness

From the above keywords obtained, the next step is to bring all the keywords together to see how they can be clustered together. In doing so, the means of measurements can be further clustered into three main clusters, (i) activity-based (such as ideas submission, open innovation, and performance ratings), (ii) skills-based (such as individual capabilities to execute or having foresight abilities), and (iii) perception (such as brand recognition).

These three clusters can be further extended to bring a better understanding of organizational innovation by mapping it to where organizational innovation can be measured (Sundbo, Jon 2000, Dewi, Efrata, Wong, Ngai 2019). Typically, organizational innovation can be measured by looking at organizational innovation's process. Any introduction of organizational innovation activity, for example, the introduction of a new idea for a new product or service or even a new idea for the policy or organizational process ignites the start of value creation for an organization. The output of such an introduction indicates the end of a combination of knowledge-sharing, knowledge-seeking/sourcing, problem-solving, improvisation, and activities that had to take place to allow the idea to take place in the organization (Roper, Du, & Love, 2008). Immediately after, the output ignites a new value creation process for the organization to generate economic or market value. All the while, every knowledge-sharing, knowledge-seeking, and alike inherently create spill over effects (or even a cyclical and iterative effect) to generate more ideas for more improvements or to create new ideas (Beugelsdijk & Cornet, 2001).

The ten means of measurements found in the literature indicated a breadth of measurements that covered the intangible and tangible outputs of organisational innovation. From the nine identified, the means of measurements can be further grouped into three main clusters: (i) activity-based (such as ideas submission, open innovation, and performance ratings), (ii) skills-based (such as individual capabilities to execute or having foresight abilities), and (iii) perception (such as brand recognition). These three clusters can be further extended to better understand organisational innovation by mapping them to where organisational innovation can be measured (Sundbo, Jon 2000, Dewi, Efrata , Wong, Ngai 2019). Typically, organisational innovation can be measured by looking at organisational innovation's process. For instance, any introduction of organisational innovation activity, such as the introduction of a new idea for a new product or service or even a new idea for a policy or organisational process would spark the start of value creation for an organisation. The output of such an introduction indicates the end of a combination of knowledge-sharing, knowledge-seeking/sourcing, problem-solving, improvisation, and activities to allow the idea to take place in the organisation (Roper, Du, & Love, 2008). Immediately after, the output ignites a new value creation process for the organisation to generate economic or market value. All the while, every knowledge-sharing,

knowledge-seeking, and alike inherently create spillover effects (or even a cyclical and iterative effect) to generate more ideas for more improvements or to develop new ideas (Beugelsdijk & Cornet, 2001).

Adopting the process suggested by (Hansen, Birkinshaw 2007)⁴, innovation has to go through three over-arching processes. These three steps are:

(i) The Idea Generation

Ideas can be generated from two sources, namely, (1) internally (within a unit/department or inter units/departments), and (2) externally (in collaboration with partners/vendors or from customers or the public at large through digital tools or crowd-based)

(ii) The Conversion

Ideas go through two steps to be realised, that is, (1) the selection of ideas, and (2) the development of the idea (normally done via prototyping)

(iii) The Diffusion

The diffusion refers to the mechanics and speed of how the produced idea is disseminated across the organisation and brought into the market.

The mapping is the means of measurements into the innovation process that allows for a clear understanding of the area of interest researchers had over the past few decades. Figure 8 illustrates this mapping. The indicators in colour⁵ illustrated how the clustering and mapping show where activities, skills, and perception overlap with idea generation, conversion, and diffusion of innovation within an organisation. The mapping indicated that emphasis was given towards the activities and capabilities clusters of how organisational innovation is measured. This could be argued that greater importance was given towards the activities of innovation and capabilities of the individual(s) to ensure that organisational innovation can meet its intended objective.

⁴ A full description via diagram of the innovation process can be found in appendix 3.

⁵ Legend of colors: (1) Activities in RED (2) Skills in GREEN (3) Perception in PURPLE.

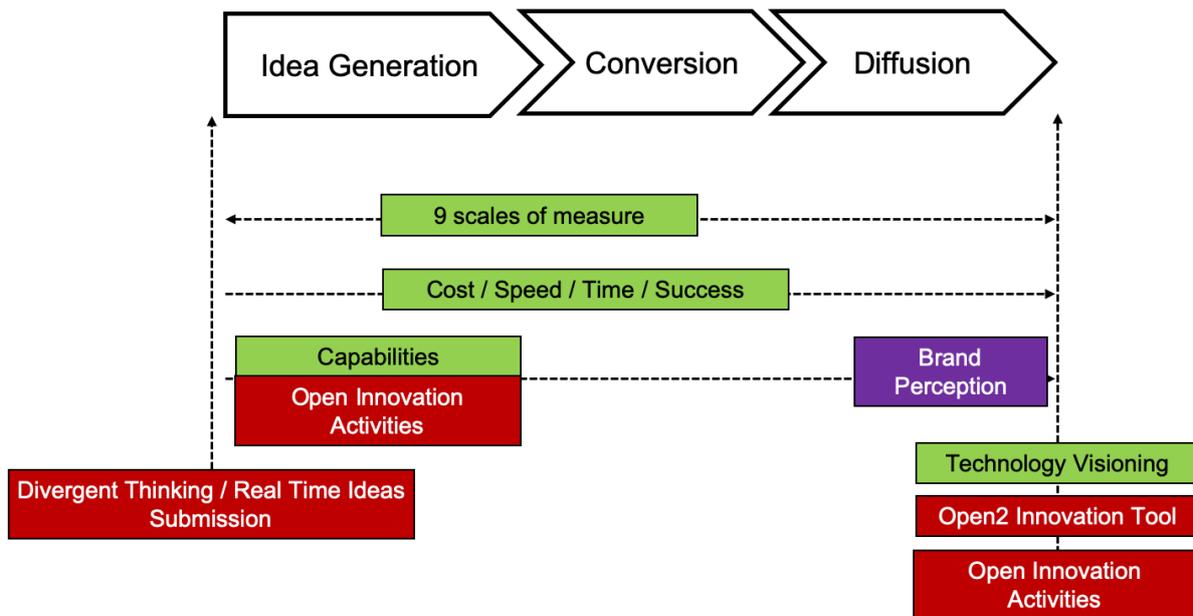


Figure 7: Mapping of Organisational Innovation Measurements with the Innovation Process
(source: author)

2.3.5 Theories on Organisational innovation

Within the 250 studies that were selected to execute this review, almost all the studies discussed at the very least one form of theory to elaborate, extend, validate or base on for the study done. Table 5 (in appendix 5) shows the theories used within the selected papers. The main purpose of this exercise was to, first and foremost, allow the author to grasp the existing underlying theories that were discussed within the selected studies; but more so to give a different perspective once they were examined with a pair of fresh lenses with a more holistic view. Nonetheless, theories are critical to a better understanding of organizational innovation. Theories within the social sciences discuss the behaviours and psychology to support or validate how individuals act and how these acts relate within an organization as well as its interactions with society. Finally, theories also look at how combining reasoning and act impacts individuals, organizations, and society (Naqshbandi, Garib Singh 2015).

In line with the objective of this systematic literature review, a description of the concept of organizational innovation needs to show all elements of organizational innovation. The binding effect of a theory to connect individuals, organization, and the

society with the effect of the connections on the individuals, organization, and society to allow a better understanding of how a firm could or would perform⁶ is imperative and the last element in this chapter. However, based on the data obtained from the systematic review, the theories that were extracted from the papers were vast.

Nonetheless, building upon the systems theory (Von Bertalanffy 1956) and adopting the cluster-based analysis of data, the data obtained gave better clarity in terms its value proposition in suggesting a new proposition for organizational innovation.

Thus, it is clear that the theories found from the articles obtained can be generally broken down into theories, namely theories related to either the organization, the market/industry or to both organization and market (figure 9 below illustrates this view). Evidently, under each category, several theories transcend across both organization and market/industry. This would suggest that there is a constant bond between the firm and the market / industry, as inherently suggested by (Von Bertalanffy 1956). It also suggests that this bond is critical to the livelihood of both the organization and the market/industry. It could also be argued that such bond is symbiotically tied to the society at large (which relates back to the objective of a theory). Additionally, under organization, there can be at least three additional sub-grouping, that is, individually (referring to the employees), management, and corporate strategy. It is also interesting to observe that these over-lapping theories are mainly individual-related. Which suggests that the theories developed were more interested in how the individual affects the firm and society.

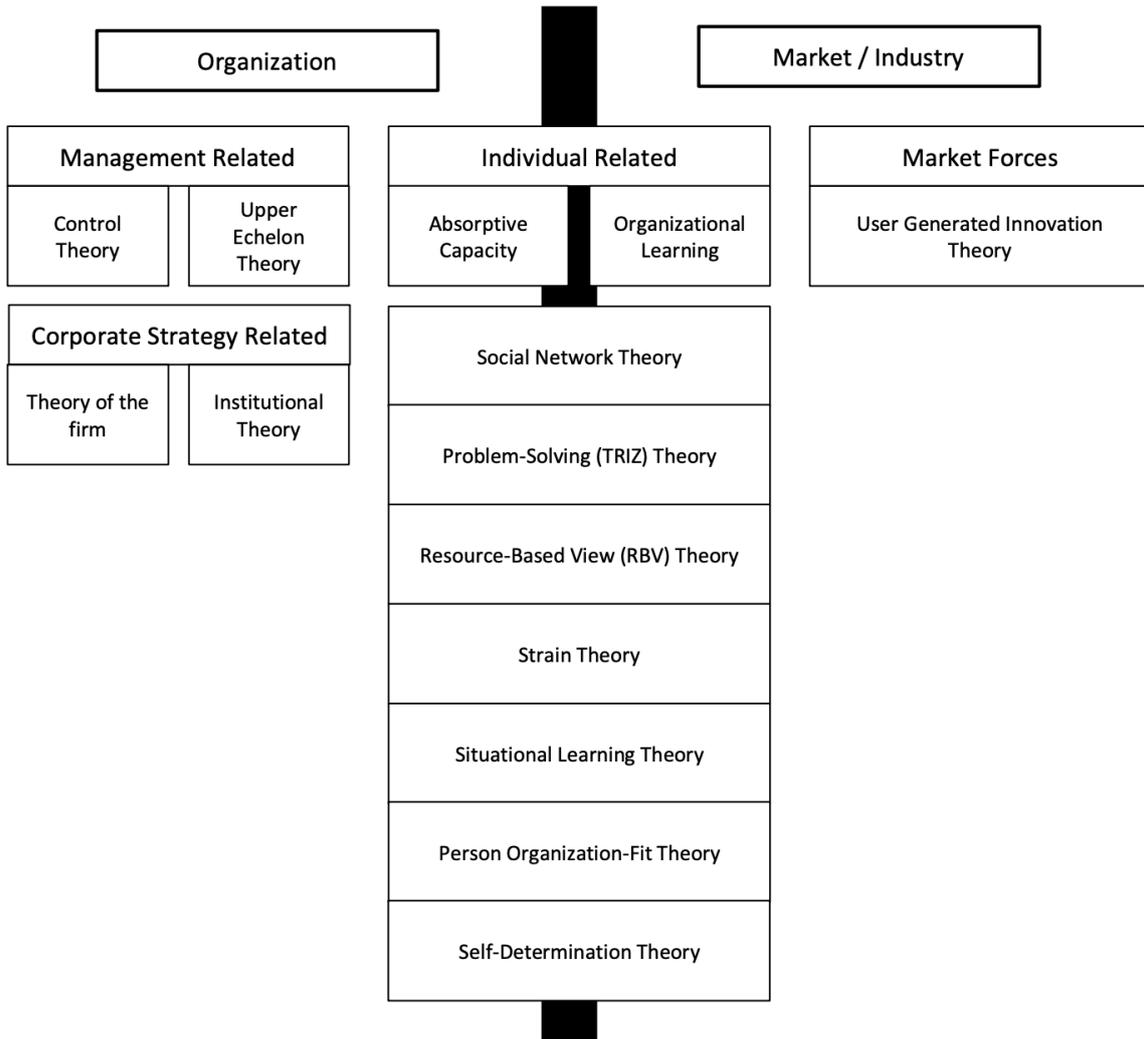


Figure 8: A Holistic View of Where Theories lies
(source: author)

Similarly, to the other sections above, while the study of every theory, based on its ever-growing enhancements, additions or foundation, it appears all theories, while unique, possibly independent and of tremendous value on its own, seems to suggest that combined, gives a bigger and more fulfilling meaning as one overall theory. From figure 5 above, it can also be argued that each theory may have a profound impact on organizational innovation; but collectively, it would possibly give organizational innovation a more substantial impact.

2.3.6 Summation of chapter 2

The primary objective of this chapter was to answer the fundamental question of what is organizational innovation? And by looking at three major elements of organizational innovation, i.e. description (definition), means of measurements and theories, the following proposed description of organizational innovation can be put forward. **“Organizational innovation connects people in an iterative process that integrates strategizing, plays with improvisation in adapting or adopting novel ideas that will contribute towards the continuous growth of the organization”.**

Additionally, there appears to be a consistent trend when all aspects of organizational innovation are looked upon from a bigger perspective:

- i) All the specific area of study, while unique, are arguably stronger and more beneficial to both academic and practitioners when viewed as a whole. Once the benefits are obtainable as a whole, more value-added research can be obtained with more novel approaches and ideas (Puranam, 2017).
- ii) There also seem to be a recurring trend of a dominant emphasis on individuals or groups of individuals, externally or internally or combined. The individuals come in the form of:
 - a. Board of Directors
 - b. Top Management Team/Senior Management
 - c. Middle Management
 - d. Employees
 - e. Partners/vendors
 - f. Society/community/users
 - g. Politicians

This would presumably be a natural observation as the individual(s) are the main element that drives both the organization and society. However, additional to this observation, it is also equally critical to note that by looking at organizational innovation from a cluster-based perspective and through the lens of systems theory, has given better clarity in terms of how to suggest a new description to the concept of organizational innovation.

To recap, below are the combined summary done thus far:

Proposed Description	Organizational innovation is an iterative process that integrates strategizing, play with improvisation in adapting or adopting novel ideas that will contribute towards the continuous growth of the organization.				
Measurement	Idea		Conversion		Diffusion
	- Capabilities - Open innovation - Divergent Thinking				- Technological Visioning - Breakthrough / Incremental - Tool - Activities
Outcomes	Tools	Social Aspect	Approach	Corporate Dynamics	Level of Innovation
Theory Clusters	Corporate		Corporate / Market		Market
	- Strategy - Individual		- Individual		- Individual - Economy

Figure 9: Summary of proposed perspective on the key areas of organizational innovation
(source: author)

As mentioned, the predominant element is essentially the individuals of an organization, both internal and external. Within an organization, there are the individuals that have the desire to make the change and the desire to be innovative or to be more entrepreneurial. The external individual that would want to contribute towards the development of new products and services for an organization, and the individual that is willing to learn, support, share and develop new products via new and novel ideas. The individual that takes the leadership role, and the leaders that would ensure continuous support.

Finally, the above findings also lead to the development of the semi-structured interview questions. This is especially so in the first set of interview questions where the main intent was to empirically explore how organizational innovation is measured by Telekom Malaysia Berhad. More specifically, the means of measurement cluster played a significant role in the formulation of the interview questions. All core clusters derived from the means of measurements, i.e. from idea generation, conversion and

diffusion was incorporated. For example, while not necessary adopting the specific approaches such as the 9 scales of measurements, the specific keywords such as, leadership, support, behaviour and infrastructure clarity, were adopted. The table below illustrates the integration of specific keywords in the semi-structured interview questions.

		Semi-Structured Interview Questions?
9 scales of measurements	leadership	<input checked="" type="checkbox"/>
	support	<input checked="" type="checkbox"/>
	tasks	<input checked="" type="checkbox"/>
	behaviour	<input checked="" type="checkbox"/>
	integration	<input checked="" type="checkbox"/>
	project raising	<input checked="" type="checkbox"/>
	project doing	<input checked="" type="checkbox"/>
	knowledge and skills	<input checked="" type="checkbox"/>
	information and communication	<input checked="" type="checkbox"/>
	Technological benefits	<input checked="" type="checkbox"/>
	Technological efficiency	<input checked="" type="checkbox"/>
	Technological magnetism	<input checked="" type="checkbox"/>
	Technological specificity	<input checked="" type="checkbox"/>
	Infrastructure clarity	<input checked="" type="checkbox"/>
Strategic orientations	Direct <input checked="" type="checkbox"/> Indirect Total and specific perspective	
Product innovation relationship Type	Breakthrough <input checked="" type="checkbox"/> Incremental <input checked="" type="checkbox"/> Development cost <input checked="" type="checkbox"/> Development period <input checked="" type="checkbox"/> Development speed <input checked="" type="checkbox"/> Overall product success <input checked="" type="checkbox"/>	

Tool	Open2-Innovation	Measures performance rating	<input checked="" type="checkbox"/>
	Diffusion Activity	Outside in activity	<input type="checkbox"/>
		Inside out activity	<input type="checkbox"/>
	Innovation performance	Coupled activity	<input type="checkbox"/>
		New product or services innovation	<input checked="" type="checkbox"/>
		New product or service success	<input checked="" type="checkbox"/>
		Customer performance	<input checked="" type="checkbox"/>
		Financial performance	<input checked="" type="checkbox"/>
		Number of inventions generated	<input checked="" type="checkbox"/>
		Impact on technical domain career success	<input checked="" type="checkbox"/>
	Technology visioning		<input checked="" type="checkbox"/>
	Idea encouragement		<input checked="" type="checkbox"/>
	Diversity encouragement		<input checked="" type="checkbox"/>
	Convergent thinking		<input checked="" type="checkbox"/>
	Ideas --> Execution		
Innovation work behaviour	Patent submission	<input checked="" type="checkbox"/>	
	Idea submission	<input checked="" type="checkbox"/>	
Industrial capabilities	Creativity	<input checked="" type="checkbox"/>	
	Skills		
	Job Expertise		
	Operational Skills	<input checked="" type="checkbox"/>	
	Motivation	<input checked="" type="checkbox"/>	

	Contextual Knowledge	<input checked="" type="checkbox"/>
Environmental	Job Control	<input checked="" type="checkbox"/>
	Support for innovation	<input checked="" type="checkbox"/>
Number of external ideas		
Brand perception		<input checked="" type="checkbox"/>
Perception of innovativeness		

Table 2: Basis for The Development of the Semi-Structured Interviews
(source: author)

2.3.7 Answering Research Question 1

Research question 1

What is organisational innovation?

Proposed description

Organisational innovation connects people in an iterative process that integrates strategising, plays with improvisation in adapting or adopting novel ideas that will contribute towards the continuous growth of the organisation

CHAPTER 3: Theoretical Background: Privatisation, technological innovation, digitisation and digitalisation

3.1 Introduction

Chapter 1 extensively discussed the reasons for the continued failure in executing innovation in large organisations. Among the many reasons, the critical one was related to the type of company. And among the several types of company, a privatised state-owned enterprise was considered as the slowest and hard-pressed to execute any types of innovation (Rakhman 2018, Fan et al. 2007, Arocena, Oliveros 2012).

Chapter 2 thoroughly discussed and suggested the description of organisational innovation concept. The description of organisational innovation also encapsulated the idea that organisational innovation is (re)iterative, and more critically, had aspects and elements that are inter-connected and inter-dependent. This finding was supported by systems theory (Von Bertalanffy 1956).

The objective of this chapter is to delve deeper into the three specific bodies of knowledge, namely privatisation, technological innovation, and digitisation and digitalisation. It is very pertinent to understand these items for three specific intentions, which are (i) a privatised state-owned enterprise was identified as one of the main types of organisations unable to innovate⁶, (ii) technological innovation⁷ is a tool used by organisations in the past to ensure continued competitiveness, and (iii) digitisation and digitalisation are tools required to ensure that an organisation is able to compete in the digital economy⁸.

This is done by looking at the following aspects of the privatization, technological innovation, digitization & digitalization. The aspects include the determination of privatisation, technological innovation and digitization & digitalization. By further

⁶ The main rationale behind picking a privatised state-owned enterprise is because of how a state-owned enterprise was also found not being able to innovate due to how a state-owned is organized and why a transition to be privatised did not resolve the inherent problems faced (Rakhman 2018; Fan et al., 2007; Arocena & Oliveros, 2012).

⁷ Technological innovation is a tool to ensure the competitiveness of an organisation (Garcia & Calantone, 2002; Azar & Ciabuschi, 2017)

⁸ Digitisation and digitalisation are transformational tools for change today (Bloomberg, 2018)

understanding the different aspects of all bodies of knowledge in question, a better more vantage point of view can be derived. Thereby allowing the author to make a wide-ranging comparison and analysis.

The rationale for a review in the determinants of privatization is to better understand how and why Governments opted for privatization as a means to ensure that state-owned enterprises can be more innovative. It is these determinants that could be deemed as similar to as an act or a form of organizational innovation. Additionally, by understanding the determinants of privatization, a more well-rounded semi-structured interview can be developed.

Another critical point to note is that, by better understanding the determinants of privatization, it would be clearer to see that while the determinants are distinct to each other, it is also inter-dependent and inter-related from the perspective of the General Systems Theory.

The review on the determinants of both body of knowledge were conducted to explore potential similarities. By understanding the determinants, it is possible to see the similarities of how technological innovation, digitization & digitalization flow, i.e. from where and what initiates technological innovation, digitization & digitalization and where does it end. And by doing the above, justify a gap that exists in existing literatures.

The main reason why there are two different approach of literature review was mainly due to one key reason. A systematic literature review was conducted on organizational innovation due to its continued disagreement of what organizational innovation meant. However, the area of privatization, technological innovation, digitization & digitalization did not have the similar continued opinions of what organizational innovation is. Nonetheless, a stringent process was developed to ensure that no particular articles was left out in the review of privatization, technological innovation, digitization & digitalization. The following steps were taken:

1. Strategy 1: Defining the search term, in this case, it was “technological innovation”, “digitization & digitalization”, “digital economy” and a combination of:

- a. “technological innovation” AND “organizational innovation”
 - b. “technological innovation” AND “digital economy”
 - c. “technological innovation” AND “digitization & digitalization”
 - d. “technological innovation” AND “organizational innovation” AND digital economy” AND “digitization & digitalization”
 - e. “digital economy” AND “organizational innovation”
 - f. “digitization & digitalization” AND “organizational innovation”
 - g. “digitization & digitalization” AND “organizational innovation”
2. Strategy 2: From the above, a specific database was selected, i.e. SCOPUS and Business & Management
 3. Strategy 3: The next step was to focus on journals that had 3 stars and above

Based on the above strategies, arguments were developed that can be found in this chapter. It is also argued that while technological innovation, digitization & digitalization is important to the research, there were no apparent or clear misperception by the authors of journals in the description of the three concepts (technological innovation, digitization & digitalization). Therefore, the strategies put in place was to ensure that any potentially relevant articles is not missed.

3.2 Privatisation

In general, privatisation is essentially the change of ownership from a particular type (for example, a publicly traded company) or from a public sector (i.e. a Government-owned enterprise) to the private sector. At times, privatisation could also mean the outsourcing or subcontracting of a specific Government service or function to a private firm. The definition of privatisation by (Domberger, Piggott 1986) is “*policies designed to improve the operating efficiency of public sector enterprise through increased exposure to competitive market forces*”. From the definition given by Domberger and Piggot (1986), specific keywords can already be highlighted—(i) to improve operating efficiency, and (ii) through increased exposure to competitive market forces. These two key phrases already suggested that organisational innovation (by the

descriptions suggested in Chapter Two) could be argued, inferred to the description of the concept of privatisation⁹.

Privatisation is conducted in several ways: (i) shares issue privatisation (to see shares of the company at stock market price), (ii) asset sale privatisation (shares are divested to a strategic investor), (iii) voucher privatisation (vouchers are allocated to represent part ownership of a company), (iv) privatisation from below (the start of a new company that is normally in a previously socialist nation), (v) management/employee buy-out (shares are purchased for free or at an agreed lower price than the current market value by the management or employee of the said company), (vi) privatisation by sale, (vii) mass privatisation, and (viii) mix privatisation. However, Government in developing nations would typically adopt a direct sale of the assets. More recently, Government in transition economies would set up a Government-based investment arm, and via this investment arm set up a Government-owned (GoC) or Government-linked company (GLC) (Amin, 2014). Some of these organisations would eventually be traded in the local stock market to generate a return of investment.

Privatisation was the path taken to resolve the principal-agent¹⁰ problems and other issues preventing the organisation from enhancing their products and services. Tyborowski, Primack, and Matthews (1997) argued that the Government should be privatised as the private market would force the organisation to **provide services more efficiently**, as within the Government there are no incentives for efficiency. Fundamentally, all studies relating to the privatisation of any type of organisation (especially for state-owned enterprise) aim to ensure that organisations become more proficient in running and managing innovation. However, in becoming proficient, arguably, efficiency does not necessarily mean critical changes in policy and processes. It could also mean new ideas on how to improve all aspects of the state-owned enterprise better. The new improvements may come in the various forms, such as **management approach, new process and policies, new knowledge management, new human capital development, and new marketing approaches**,

⁹ Even though this is insufficient evidence of the potential similarities between organisational innovation and privatisation, this finding is just a start of the potential similarities.

¹⁰ Principal-Agent Problem is when agents (an individual or a legal entity) makes decision based on self-interest that contradicts the interest of their principal (an individual that authorizes the agent to act on their behalf).

or business plan (Aharoni 2018, Aharoni 2000, Cuervo-Cazurra 2018). These introductions of newness were already eluded Schumpeter (1934); hence, reiterating the importance of bringing new and novel ideas to an organisation.

While there are many arguments about the decision over privatisation, the debate about going for or against privatisation can be broken down into eleven areas. The eleven areas can be further grouped into a clustered-based perspective following the identified objectives of privatisation, namely (i) new management approach, (ii) new process and policies, (iii) new knowledge management, and (iv) new marketing approaches or business plan. The diagram below illustrates these areas.

The new management approach discussed areas of governance (accountability versus potentially open to corruption), managing information (privacy of information versus civil liberty), and political influence (moderate to none versus moderate to high). New process and policies focus on improvements (prioritisation versus “boil the ocean¹¹”) and security (more disciplined versus non-disciplined). New marketing approaches or business plan referred to performance (efficiency versus bureaucracy, specialisation versus general), goals (market/economic driven versus politically driven), fundraising (privately driven versus yearly budgetary), market concentration of wealth (open and dispersed versus monopolistic and imbalance) and profits (market-driven versus profit is not the primary objective). New knowledge management debated how organisations adopt, manage, and extend skills, capabilities, and knowledge of employees and leadership of the three areas mentioned above. However, it could be argued that the areas of debate are not mutually exclusive because each area of the debate is interrelated and interdependent, as described in the new knowledge management approach.

¹¹ Boil the ocean refers to the act of doing everything with no focus.

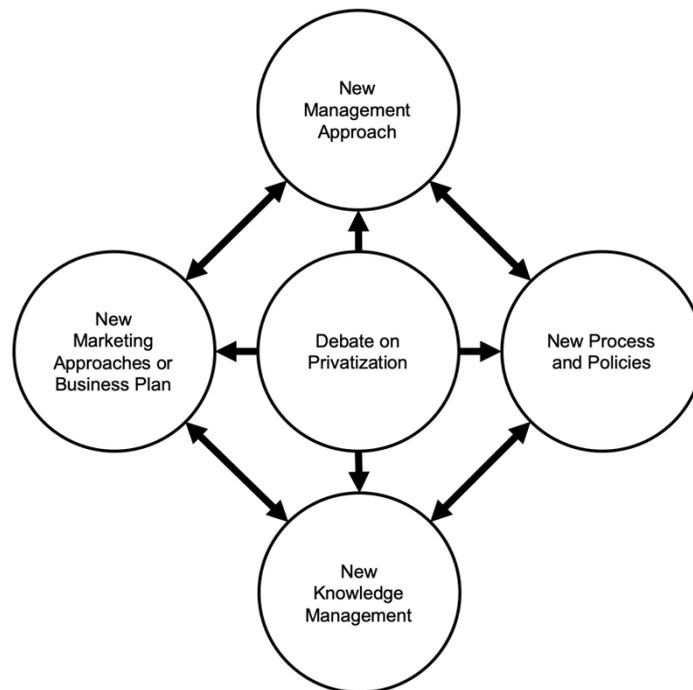


Figure 10: Pros and Cons of Privatisation

(source: author)

The arguments put forth by the pro and con supporters have merit in their respect. Nevertheless, both sides agree that the end game is, ultimately about bringing the best value to the customers/citizens/users (Aharoni 2018). The basis of the continued disagreement is mostly about the mechanism to bring this said value to the customers/citizens/users. Thus, it could be argued that in order to provide value to customers/citizens/users continuously, there needs to be a continuous change in the organisation. Therefore, the argument has created a conundrum where a change in one aspect of the organisation requires a change in other aspects of the organisation (Von Bertalanffy 1956, Kast, Rosenzweig 1972). Finding the balance is what makes successful privatisation remains elusive (Ab Razak et al. 2008) and privatisation is seen as a means **to force change in an organisation.**

3.2.1 Determinants of Privatisation

Since the early 1990s, many countries, especially China, have been going through many acts of privatisation (Liu et al. 2016, Chen, Y., Igami, Sawada & Xiao 2016a,

Ure, Vivorakij 1997, Magowan 1989). This is mainly due to the understanding that state-owned enterprises have too many employees, thus, wasting many facets of resources and yielding low or insignificant productivity (Liu et al. 2016).

By definition, a state-owned enterprise, according to OECD (2005), is an organisation where the Government holds the majority shares or significant ownership (for example, a minimum of a 10% voting rights). In other words, a state-owned enterprise is an organisation that is legally established to perform profitable undertakings on behalf of the Government (also known as the state)¹². The Government, or the state, owns a state-owned enterprise in several different ways, such as wholly-owned, as the main investor or majority shareholder. In addition to the commercial activity, the state-owned enterprise would probably, depending on the policy included by the Government, have some public policy objectives (Aharoni, 2000).

State-owned enterprise would usually monopolise a specific and strategic industry, such as railway or telecommunication industry. Such dominance in a particular industry varies from one country to another. While it is more common to happen in emerging nations, developed countries like the United States and the United Kingdom, have also adopted a state-owned model to retain full or majority control of state assets and its services (for example, the Transport for London, an organisation under the UK Government (Ison, Rye 2005)). The impact or effectiveness of state-owned enterprise or Government-linked companies seems to transcend organisation performance that organisation innovation covers.

There are already studies to indicate that state-owned enterprises are uncreative and fruitless (Cheng, Q., Ng 2018, Khan, Ullah 2018, Turner et al. 2017, Cheng, H. et al. 2018, Li, T., Belal 2018, Hodge 2018, Lin, J. Y. et al. 1998, Wagner 2018, Mundial 2013). Several studies (Musacchio, Lazzarini 2018, Cheng, Ng 2018, Aharoni 2018, Aharoni 2000, Cuervo-Cazurra 2018, Li, R., Cheong 2019, Musacchio, Lazzarini 2018b) showed that this type of organisations is:

- Slow

¹² In some countries, there are also an organisation under a Ministry called a Government / state agency that is not for profit and managed by the state / Government (Dennis 2006, Bouwman et al. 2011)

- Bureaucratic
- Risk-averse
- Focused on adhering to the political will of the day
- Non-Collaborative or silo-based working environment
- Sycophant and very bureaucratic-based work culture

Arguably, this is due to the intent of the Government in setting up a state-owned enterprise, which is not necessarily to be competitive nor to be innovative. The main objective of setting up a state-owned enterprise is not necessarily to be sustainable but to allow the Government to have better control over its natural resources, such as energy, telecommunication, or power via a legal entity (Putniņš 2015). Thus, there is and should not be any expectations of a state-owned enterprise to be innovative in how the organisation is managed nor what new products and services are introduced, as the setting up of a state-owned enterprise is to safeguard national interest (Belloc 2014, Aharoni 2000, Lin, L. 2017, Cuervo-Cazurra 2018).

The act of privatisation is to motivate its new owners and its entire structure of employees to be independent in pursuing means and ways to ensure the organisation growth (Nolan & Xiaoqiang, 1999). The intent of privatising the state-owned enterprises is to ensure that these organisations have and take more ownership of strategic decision-making and activities to chart their way to be globally competitive. Through privatisation too, the Government intends the state-owned enterprise to go through a major **change** that will ensure and allow the organisation to be more innovative, and therefore, presumably more competitive, entrepreneurial, and efficient.

With that in mind, privatisation is driven by specific factors or determinants. Studies over the past three decades have uncovered four main determinants—(i) market conditions/forces, (ii) the effectiveness of the organisation, (iii) political, and (iv) financial. Liu et al. (2016) suggested that due to the demand of market forces¹³, it was appropriate and logical to privatise a state-owned enterprise. In order to ensure that the state-owned enterprise would be more efficient and effective, there was a need to

¹³ Liu et al., (2016) argued that there is a growing dissatisfaction of the products and services rendered by state-owned enterprises.

look into managing the size of the organisation versus the productivity of the employees (Spranger, 2011). From a political perspective, apart from a means to ensure that a state-owned enterprise could be more efficient and innovative in the way they work, it was also meant for the Government to reduce its deficit and generate income from the sale of public assets (Liu et al., 2016). Liu et al. (2016) also suggested that privatisation was a means to generate deal flows of foreign direct investment.

Additionally, based on the data obtained from this review (as shown in Appendix 6), as the research on the determinants of privatisation progresses, the study's focus gradually shifted towards the economic or market forces, and how the organisation would need to grow and sustain on its own instead of relying on the Government's continued support. Also, it can be seen that the determinants of privatisation can be further classified into three clusters:

- (i) **national growth/policy** (such as managing the budget deficit, profit from share sales proceed, keeping taxes low, and political affiliations),
- (ii) **market/economic forces** (such as market demands), and
- (iii) **organisational performance** (such as the organisation size in relevance to the employees' productivity and wages). It is apparent from the above cluster view of privatisation determinants that two out of the three clusters of determinants are similar to organisation innovation, namely, market/economic forces and organisational performance. This is another evidence that there is a strong link between privatisation and organisation innovation.

The determinants appear to be distinct to each other. However, expanding from systems theory (Von Bertalanffy 1956) and cluster-based perspective, the determinants appear to be inter-related and inter-dependent as well. For example, following market forces, a Government devised a national growth policy that would ensure its state-owned enterprise is more competitive by increasing its performance. The starting point for the determinants can be at any of the three identified clusters, and it will affect the remaining two. These cluster views are illustrated in Figure 11 below.

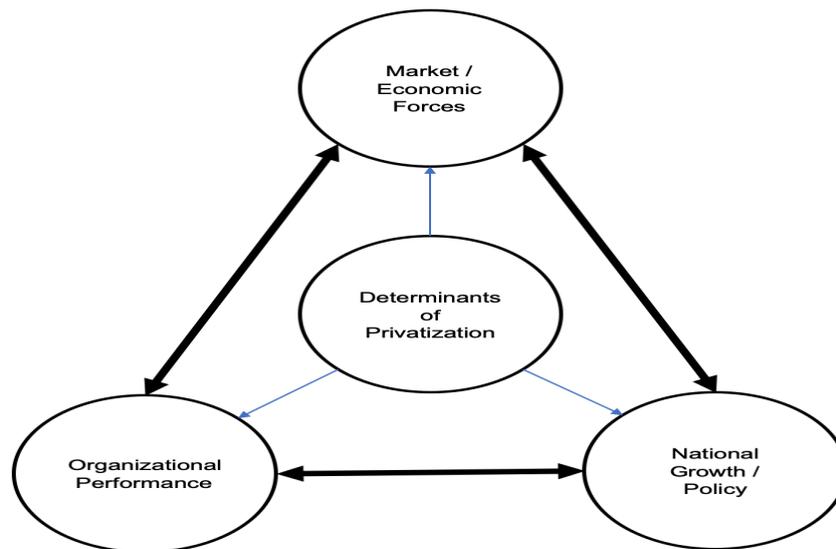


Figure 11: Cluster-based View of Determinants of Privatisation
(source: *author*)

Thus far, the documented evidence obtained seems to suggest that there appears to be some form of similarities between organisational innovation and privatisation. To achieve the three identified clusters (i.e. meeting marketing/economic forces, organisational growth and obtaining national growth/policy) appears to be similar to the determinants of privatisations. This suggests that the state-owned enterprise requires an overhaul.

3.3 Privatisation and Organisational Innovation

It is established that organisation innovation is critical for any firm's competitive advantage, yet organisational innovation has not looked at privatised firms (Zahra & Fescina, 1991). However, this has changed drastically over the past few years, of which the main focus of the relationship between privatisation and organisation innovation was based on the following areas:

- Type of ownership impact on organisation innovation (Xie, 2012)
- The influence of privatisation on corporate culture (Attafar, Rasekh, & Shahin, 2014)
- The effect of privatisation on the organisational process (Goldstein & Godinho, 2010)

- Strategy for privatisation to ensure organisation innovation (P. Cheng, Chen, & Lin, 2008)
- Privatisation, senior management, and Innovation (Nguyen, Dao, & Pham, 2005)
- Privatisation process and its impact on R&D (Munari, Roberts, & Sobrero, 2002)

Examining both areas of privatisation and organisational innovation continue to show some form of similarities between organisational innovation and privatisation. More specifically, in the act of privatisation, a state-enterprise would go through some key changes. The first change comes from the transfer of ownership. From this change comes the appointment of new senior management that is expected to bring in changes in other related areas, such as organisation structure, the transformation in leadership, the alteration of process and policies, and finally, the shift in work culture. Privatisation purpose is to ensure that the previously state-owned enterprise is sustainable without Government aid. In order to grow and not to depend on the Government, the privatised state-owned enterprise is also expected to be innovative in how the new ownership, leadership, management team, and the entire mechanism of the organisation drive the organisation forward. Arguably, the expected changes in a privatised state-owned enterprise are similar to the phenomenon of organisational innovation. How could it possibly be the same? By definition, privatisation addresses the transformation of a state-owned enterprise to a privately-owned organisation, or “to improve the operating efficiency of public sector enterprise through increased exposure to competitive market forces”.

Meanwhile, the OECD definition of organisational innovation addresses the phenomena by introducing a different or an innovative approach of how an organisation can be managed and how the overall organisational ecosystem is inter-dependent; a description enhancement suggested in this study. Furthermore, studies on privatisation and organisational innovation have shifted with minimum or no interest in examining the possibility that the two are related to one another.

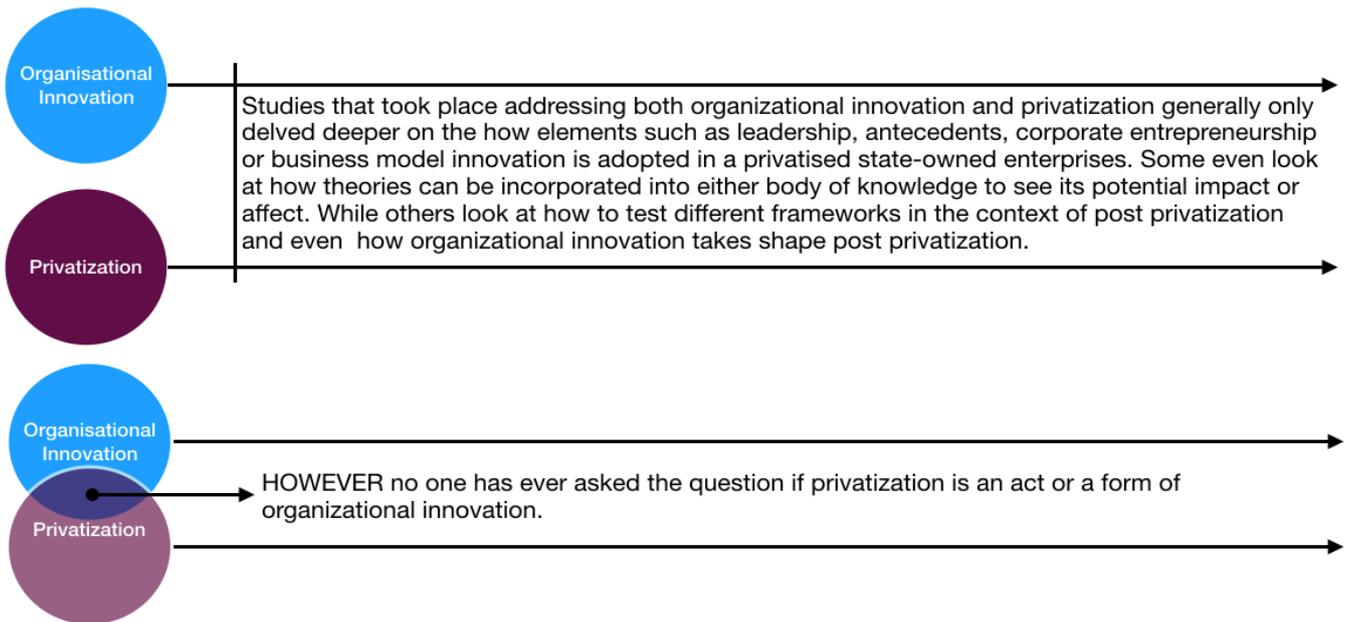


Figure 12: Overview of Past Studies on Organisational Innovation and Privatisation
(source: author)

Therefore, the first proposition of this study is **to explore the possible relationship between organisational innovation and privatisation**. This is done by specifically asking the question: **is privatisation an act and or a form of organisational innovation?**

3.4 Technological Innovation, Digitalisation and Digitalisation, and its relation to Organisational Innovation

3.4.1 Introduction

The final area of this study looked into technological innovation and digitisation and digitalisation. In comparison to organisational innovation, technological innovation and digitisation and digitalisation are not as complex as organisational innovation. However, scholars agreed that the organisational innovation's effect on technological innovation and digitisation and digitalisation is critical to the growth of an organisation (Maldifassi, Crovetto 2013, Murawiec, Heeter 1998, Irfan Sabir, Moazzam Sabir 2010, Camisón, Villar-López 2014, Azar, Ciabuschi 2017). The study of technological innovation has been around for more than two decades, but technological innovation has been getting more attention only from the year 2000s. This is probably due to the influx of technology adoption by firms globally. The emergence of the digital economy

started to take shape in the 2000s. It became more prominent in the 2010s when more and more big organisations adopted digitisation and digitalisation in their digital transformation strategies.

3.4.2 Technological Innovation

Technological innovation started to take shape in the twenty-first century, which was suggested as the initial point of the age of innovation (Murawiec, Heeter 1998). It could be observed from the selected literature that the adoption of technological innovation grew and increased rapidly. Today, this rapid growth is evidenced by the exponential progress of the electronics and telecommunications industry. And this exponential evolution and revolution have had a direct impact on the creation of unparalleled economic disruption with an enormous multiplier effect (Murawiec, Heeter 1998).

Technology has and is playing a crucial role in how a company innovate and grow. The OECD defines technological innovation as “new products and processes and significant technological changes of products and processes”. Meantime, (Damanpour, Evan 1984) suggested that technological innovation is the idea of a new product or a new service or the insertion or creation of a new procedure(s) in a firm’s processes or operations. (Benner, Tushman 2003) added that technological innovation improves existing technology, and either enhances or displaces the current process with creative destruction via the introduction of new or profound technologies. New or profound technologies refer to the ability of said technology to build new or build upon existing skills and proficiencies and or removes existing abilities and know-how obsolete.

However, in emerging economies, technological innovation is more widely known as “the introduction of a process or a product that is new to the economy ... it includes all modifications or adaptation of process” (Subrahmanya 2014). Scholars suggested that, in general, the adoption of technological innovation is driven by strategic reasons (Noori 1990). However, determinants could come from internal and external factors.

(Noori 1990) suggested that the external factors comprise: (i) economic conditions (such as an economic recession), (ii) market forces (such as the rise of social media

and competition from start-ups), and (iii) the demand for inputs or related items for production (such as skilled human capital or energy). (Mani 2004) added that the Government's economic and social policies are also a determinant to technological innovation. Meanwhile, internal factors that could influence technological innovation are organisational culture (Madhubashinie, Hitihamu 2017), the size of the organisation (Ugheoke 2017, Camisn-Zornoza et al. 2004), human capital (Mohammadi et al. 2017, Gereffi 2011), resources available (Sundbo, J. 1996) and the type of leadership (Schein 2010, Dess, Picken 2001). These factors are illustrated in Figure 14.

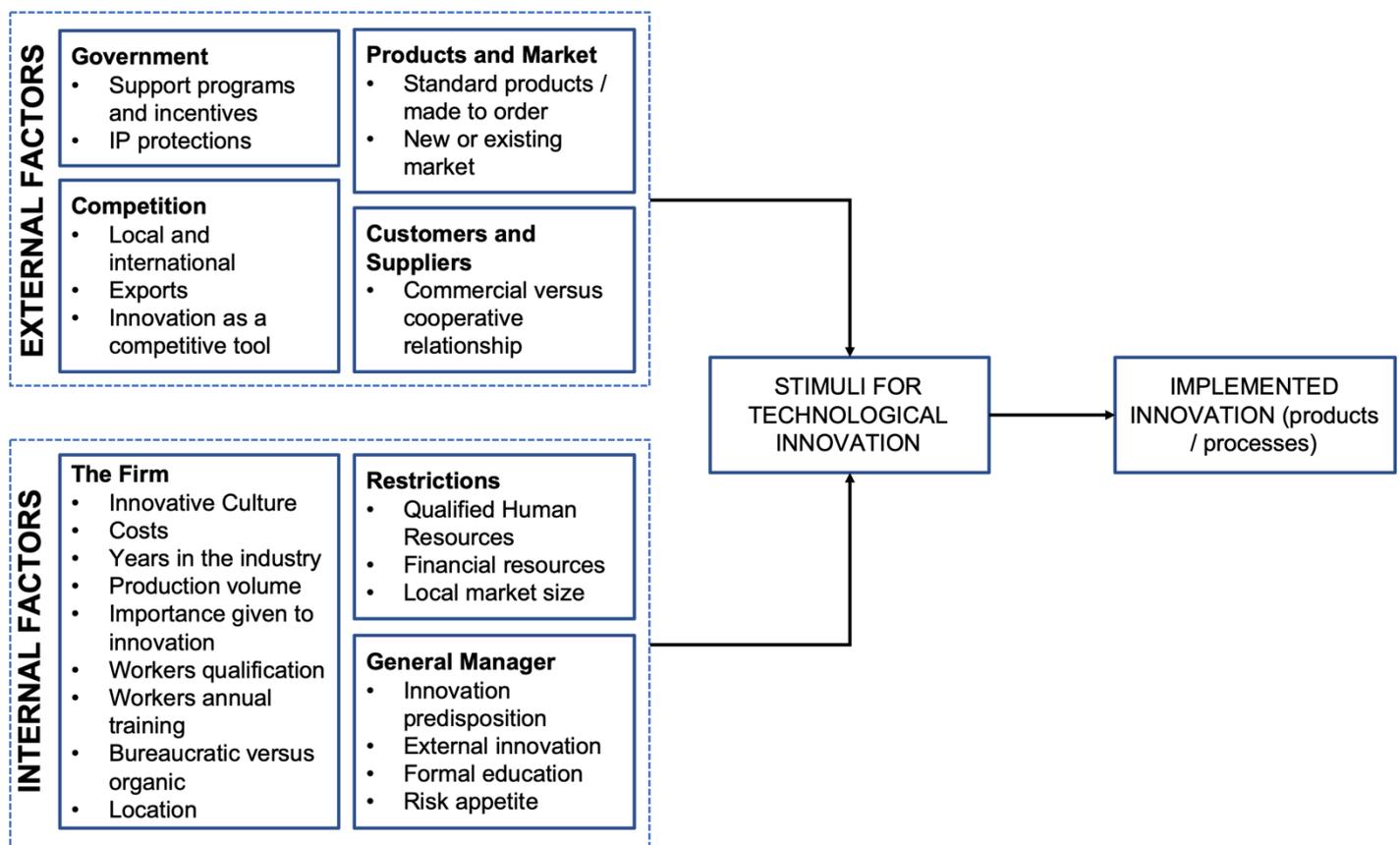


Figure 13: Determinants to Technological Innovation
(source: author)

By adopting the input-process-output¹⁴ (Figure 14), the main distinction focused on how technological innovation brings in new processes and the introduction of a new element or procedure that would yield in new products and services that enhanced the technological spin.

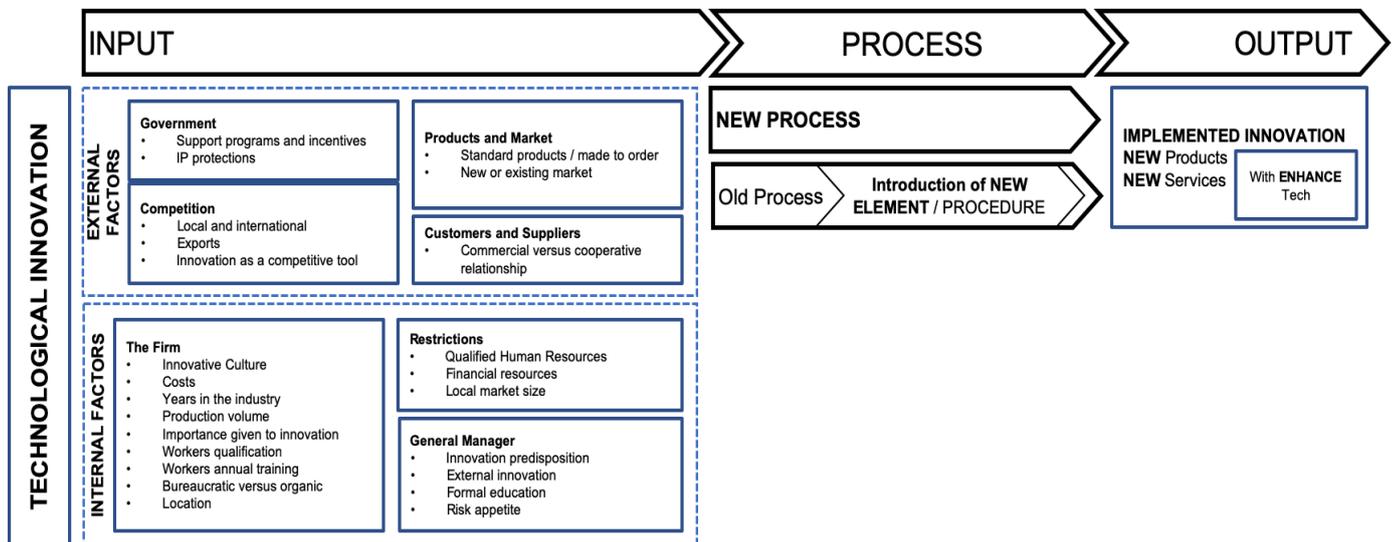


Figure 14: Input-Process-Output on Technological Innovation
(source: author)

In addition, to remain consistent with the previous sections on adopting the systems theory, which contends that the aspects and or elements are interrelated and interconnected, it could be argued that the determinants for technological innovation could be interrelated and interdependent. The input-process-output adaptation (of technological innovation) also brings in the argument that elements within the input-process-output are related to each other. For example, an external factor, such as the introduction of a product or service, would trigger an innovation within another organisation. And concurrently, the introduction of a new product or services by the company affected by the competitors will be the trigger to another company. Furthermore, a change in a determinant would force an organisation to make necessary changes in other areas of determinants to ensure a more holistic corporate-

¹⁴ The input-process-output is a dominant way of thinking about creativity and innovation in relevance to how an organisation executes businesses (Curral et al., 2001; West & Anderson, 1996; West & Hirst, 2003). This is done by identifying how separate elements within the input-process-output relate to one another (West & Hirst, 2003).

wide change in order to be competitive. Thus, every element of the determinants is interrelated and interdependent.

However, it is uncanny to note that the determinants of technological innovation are similar to the determinants of organisational innovation based on the cluster-based and concentric circle, as suggested in Chapter 2. For comparison, the cluster-based concentric circle of organisational innovation is re-depicted in Figure 15, which clearly illustrates the noteworthy similarities.

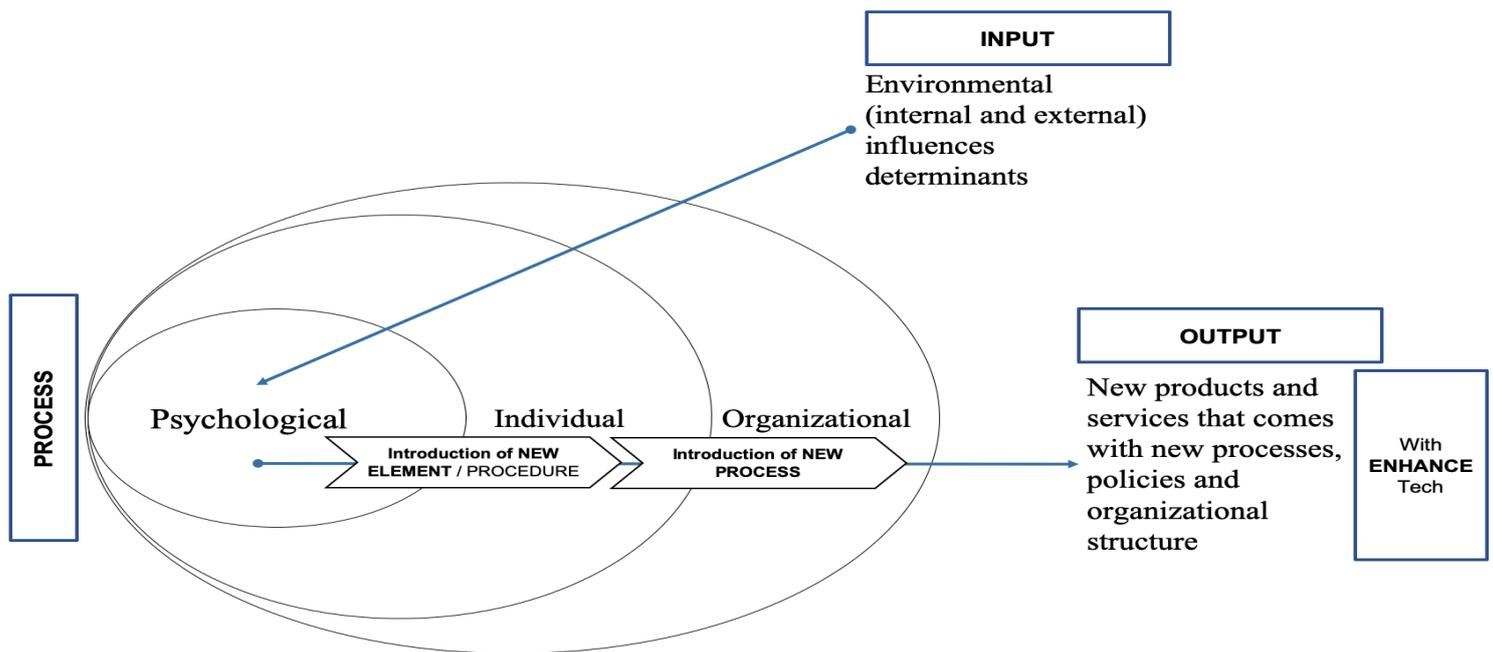


Figure 15: Mapping of Cluster-Based Organisational Innovation Determinants and Technological Innovation

(source: author)

3.4.3 Digitisation and digitalisation

Above and beyond technological innovation, organisations globally are facing the onslaught of the digital economy. Similar to technological innovation, digitisation and digitalisation are less complicated (in comparison to organisational innovation and privatisation) to describe, thereby easier to explain. In recent advent development of digital technologies, everything and anything must be found online, and they want the services rendered fast. Efficiency is at the utmost priority of people today. Speed in obtaining data is ever more so critical in how consumers make decisions on what they

consume and purchase. For example, a communication application that is used to allow more efficient decision-making or knowledge-sharing.

According to the literature on digitisation and digitalisation, it was found that digitisation and digitalisation were synonymous with the term digital transformation. Digital transformation was suggested as a tangible step-by-step transformation for an organisation via the introduction of digital technologies. This transformation was deemed necessary because of the market and economic forces (Carcary et al. 2016). Digitisation discusses the flow or means of changing analogue-based data into digital-based data (Brennen, Kreiss 2016). Digitalisation, on the other hand, is the utilisation of digital information and digital technologies to create and or enhance value (Gobble 2019). Digitalisation was also described as the utilisation of emerging technologies to develop and build new business strategies, new products, and new services (Rachinger et al. 2018).

The digital transformation emergence that is fuelled further by digitisation and digitalisation are critical elements within the digital economy. The digital economy is "... the economic activity that results from billions of everyday online connections among people, businesses, devices, data, and processes" (Deloitte 2017). The digital economy has made a tremendous amount of impact on society, individual behaviours, and corporates. In order to be relevant in the digital economy, corporates are forced to relook at how a business is done and transformed accordingly to sustain and compete effectively. This "forced" change involved key changes in business operations, processes and policies (through the implementation of new digital applications that simplifies processes) (Parviainen et al. 2017)), and structure and operations (Reis et al. 2018). Other areas of changes in the organisations will incorporate changes at the organisational level, where the organisations would come up with new product offerings while enhancing the existing products and services in a more refined way. The digital economy is also drove by the rapid change of how consumers are behaving (Reis et al. 2018). Changes, such as the demand for speedy information or (customer service) reply and instantaneous data (such as traffic data or banking data). It has also been argued that digitalisation is the primary stimulus that is affecting all types of industry and all size of companies (Linz et al. 2017). Data obtained indicated a clear business value where overheads and costs can be reduced

by 90% (Parviainen et al. 2017). This is done predominantly by reducing the use of paper and relic manual approaches. Digital technologies are able to extract data to allow a more immersive understanding that will spur new ideas to refine or create new policy and processes to fit the introduction of new products and services (Parviainen et al. 2017). Figure 16 illustrates the above discussion.

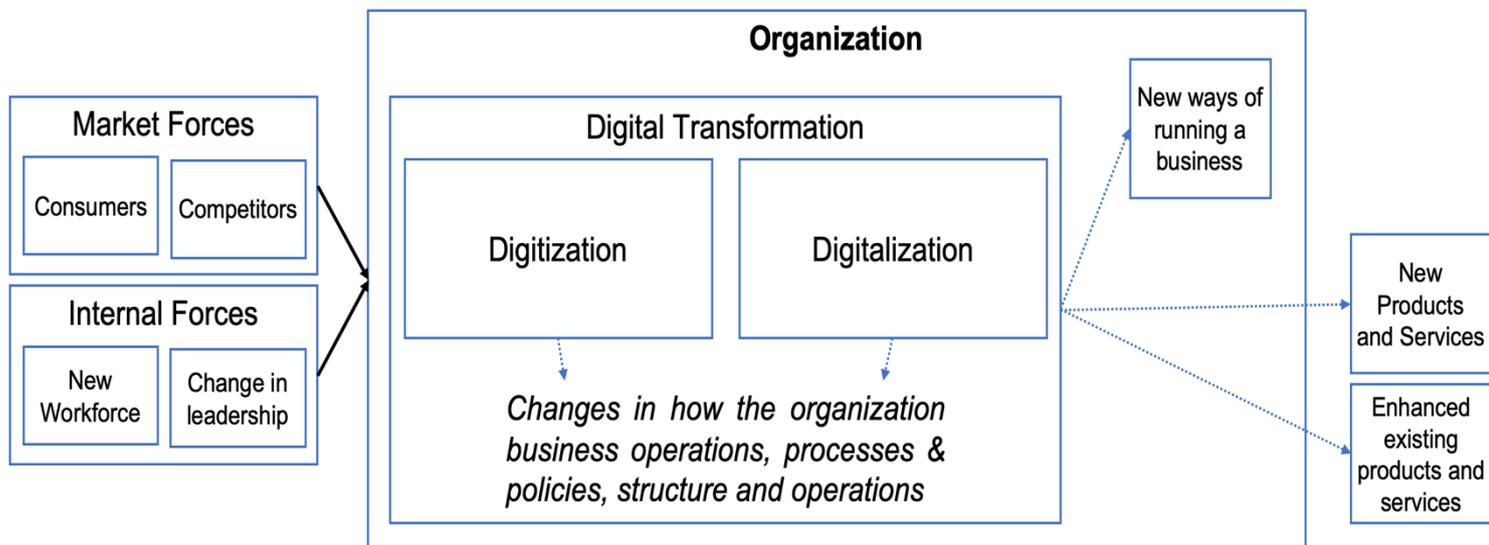


Figure 16: Digitisation and Digitalisation Flow and Characteristics
(source: author)

The comparison of the findings of the digitisation and digitalisation literature revealed that the main determinants of digitisation and digitalisation are mostly the change in the external environment (possibly from the consumers and their behaviour and demand from businesses) and internal environment (probably from the influx of the millennials with high expectations of how work can and should be done), and the change in leadership with a high propensity to change and take risks. Furthermore, Figure 17 also indicates that digitisation and digitalisation will have a substantial impact on the organisational structure and operation.

Again, Figure 16 has a strong resemblance to the input-process-output of an organisation. The mapping of the characteristics and description of digitisation and digitalisation into the input-process-output flow (Figure 18) shows that the determinants of digitisation and digitalisation are the input. Notably, the key distinction of digitisation and digitalisation can be seen in both the process and output of the

flow, in which new or emerging technologies are used for generating new products or services. For instance, emerging or new technologies could be used to enhance existing products and services. Likewise, the key characteristics of digitisation and digitalisation could be found under process (digital technologies, new processes, new policies, new business model, new structure [organisational and or ownership]) and output (new products and services, new business services, going into a new market, and new ways to run or manage a business).

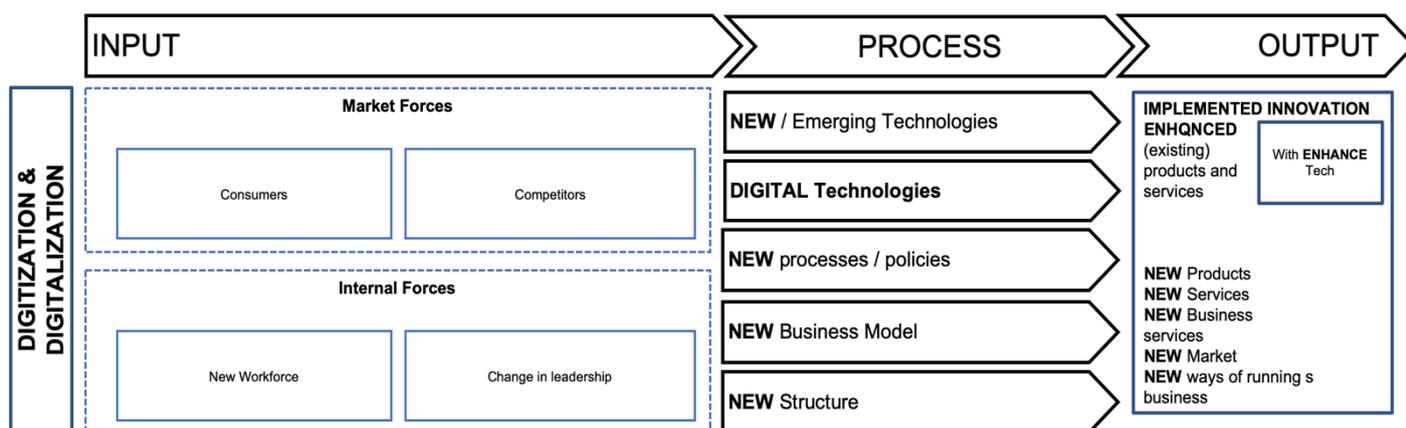


Figure 17: Input-Process-Output Mapping of Digitisation and Digitalisation
(source: author)

Similar to organisational innovation, large organisations found it challenging to execute digital transformation, digitisation and digitalisation effectively. A study conducted revealed that (i) seventy-six per cent of business executives believed that digital technologies are important to their organisations, (ii) sixty per cent felt that digital technologies have an impact and will change the way they do work, and (iii) seventy-six per cent indicated that digital technologies would change the market in a big way (Huy, Shipilov 2012). For an organisation to transform, there is a critical need to change the ways (such as how work is performed) of things are done, based on habits developed over the years (Henriette et al. 2015). These changes would allow an organisation to be more (i) efficient (how the work is done, thereby forcing changes in process and policy), (ii) sensitive to change in the internal and external ecosystem/market (to be able to seize new opportunities), and (iii) disruptive (where the role of business also changes) (Parviainen et al. 2017).

In comparing digitisation and digitalisation and organisational innovation, there is some form of resemblance, or some elements that can be found in both areas, namely the impact of external and internal elements, changes in structure, work culture (such as habits, collaborations), process, and policies. This mapping is depicted in Figure 18.

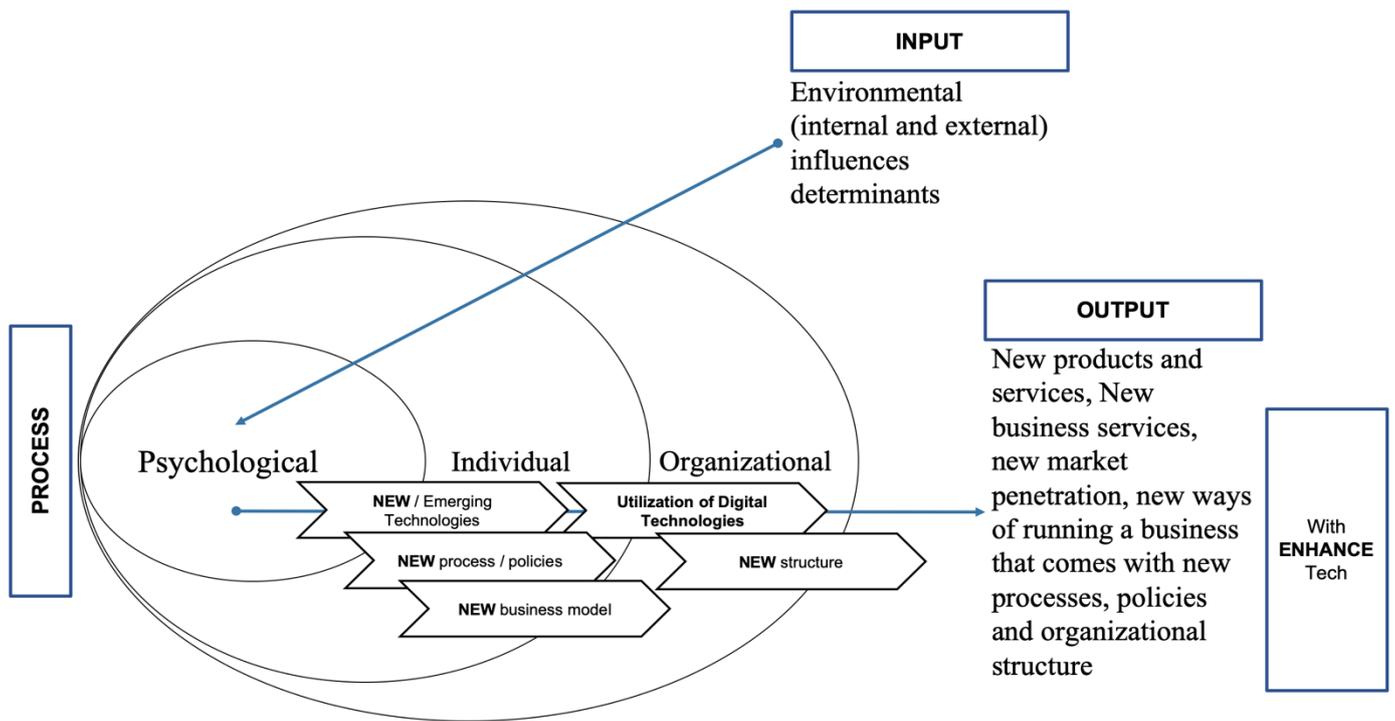


Figure 18: Mapping Digitisation and Digitalisation with Organisational Innovation
(source: author)

3.4.4 Mapping technological innovation and digitisation & digitalisation

By using the input-process-output mapped with technological innovation and digitisation and digitalisation (Figure 20), it can be argued that some form of similarities already exists between technological innovation and digitisation and digitalisation. The similarities can be seen in the process portion of the flow and the output portion of the flow. The similarities are perhaps only different in the level of changes that occur in technological innovation in comparison to digitisation and digitalisation; that is, it could be argued that the new element or procedure that takes place under the process portion for technological innovation could have originated from the introduction of new/emerging technologies, digital technologies, a new business model or even a new

structure. The potential similarities between technological innovation and digitisation and digitalisation from a theoretical standpoint led to the second proposition: **What is the relationship between technological innovation and digitisation and digitalisation? Is technological innovation a form/aspect of digitisation and digitalisation? Or is it vice-versa? Or is it the same?**

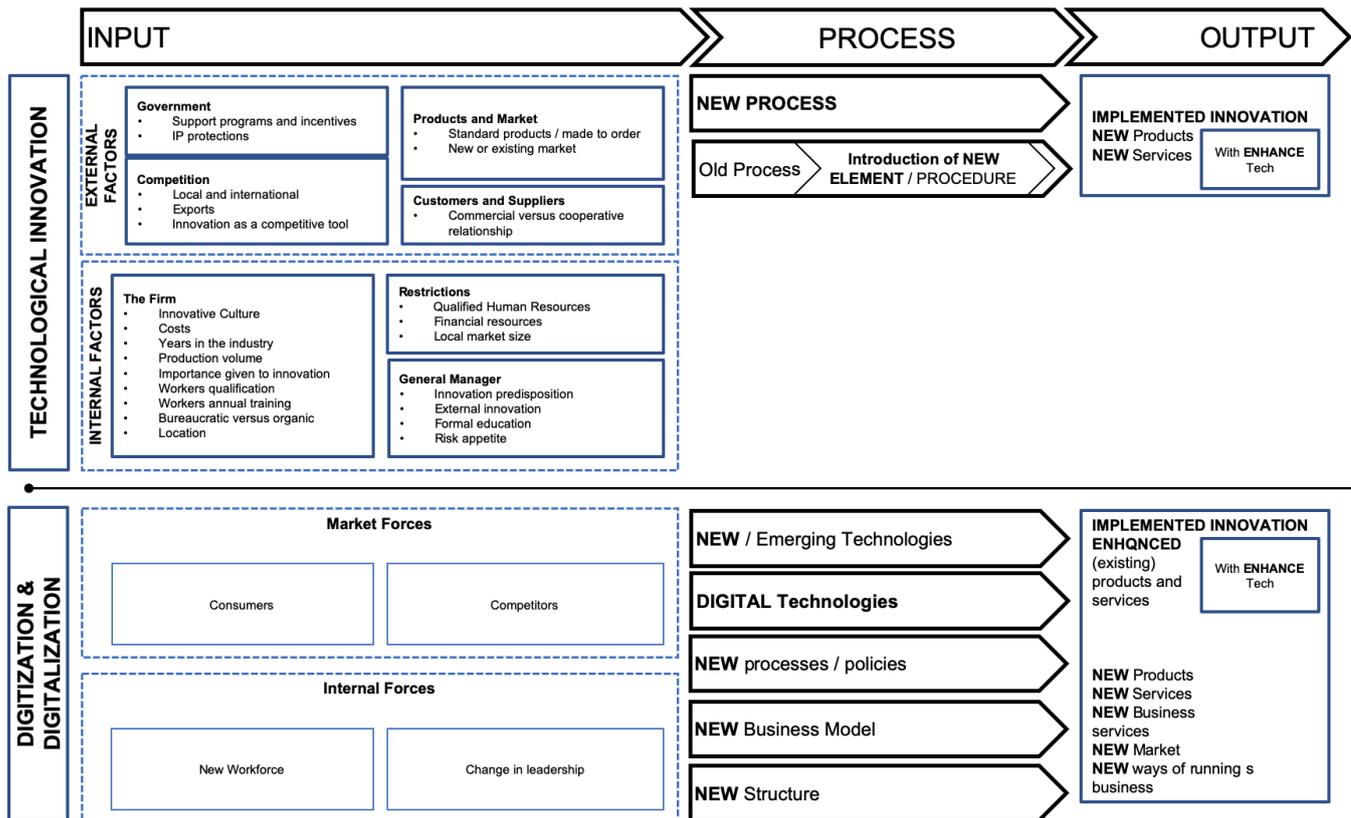


Figure 19: Mapping of Technological Innovation and Digitisation & Digitalisation with The Input-Process-Output Flow (source: author)

Organisational innovation, technological innovation and digitisation and digitalisation

In the past, researchers suggested that organisational innovation can determine how technological innovation is used (Damanpour, Evan 1984). Studies have also argued that there is a direct relationship between how operations and administration affect the way an organisation optimises its outcomes. (Azar, Ciabuschi 2017) contended that organisational innovation could further enhance the ability of an organisation to

develop radical technological innovation. Meanwhile, several studies (Bounfour 2016, Marchand, Wade 2014, Deloitte 2017) empirically showed that there is a direct benefit in adopting digitisation and digitalisation to an organisation that increased organisational performance. The literature also indicated that organisational innovation has an impact on digitisation and digitalisation (Chen, Z. et al. 2017, Bouwman et al. 2018).

More interestingly is that the extant literature also discusses technological innovation and digitisation and digitalisation seamlessness. Arguably, there is some form of confusion regarding technological innovation and how it could be different or similar to digitisation and digitalisation. This review already indicated that there is a clear distinction between technological innovation and digitisation and digitalisation, **but** the distinction dissipates once mapped under the input-process-output flow. It can also be seen from this review section that once technological innovation and digitisation and digitalisation is outlined against the determinants of organisational innovation, some form of similarities is apparent. But, to what extent does the similarities remain, and the difference starts to set organisational innovation, technological innovation, and digitisation and digitalisation apart? The second proposition will attempt to answer this conundrum as well.

This review section indicated that there is a possible similarity between organisational innovation and privatisation (proposition one). The review section also showed a possible similarity between technological innovation and digitisation and digitalisation (proposition two). The answer to these two propositions is capped with the third and final proposition; how do both propositions affect firm performance (**how does organisational innovation/privatisation adopt technological innovation/digitisation and digitalisation to affect firm performance?**)

3.5 Research Framework

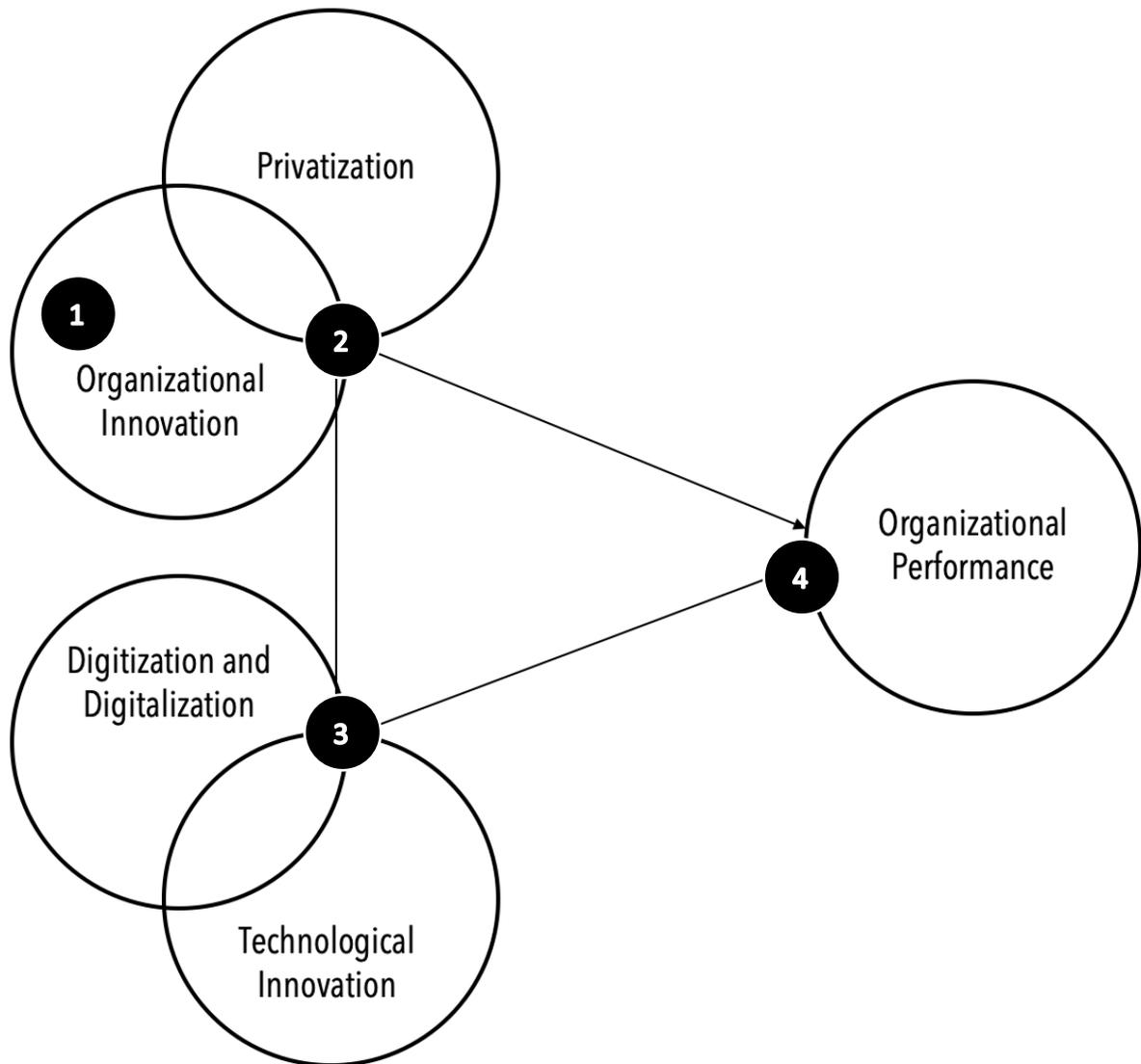


Figure 20: Research Framework
(source: author)

In order to unite the three elements of this research, the following framework was developed. **(1)** Fundamentally, it is important to better understand the concept of organisational innovation and what does it essentially entail before any data gathering is conducted. This is critical as a starting block because organisational innovation is the foundation of this research. It is the foundation because past studies already determined that organisational innovation ignites innovation in organisations (Steiner 1995, Subramanian, Nilakanta 1996, Calantone et al. 1995). Furthermore, organisational innovation, as discussed earlier, essentially brings individual, or more

appropriately, resources to the forefront. Organisational resources are critical to the success of any organisational innovation initiatives. Therefore, this study will additionally rely on the resource-based theory to ground this study (Wernerfelt 1984, Nason, Wiklund 2018). By definition, the resource-based theory discusses the availability of resources, such as assets, capabilities, processes, knowledge, and most importantly, individuals. Additionally, the theory explains how the organisation manages these resources, which will enable the organisation to execute strategies that will ultimately increase organisational performance (Barney 1991). However, this study will also rely heavily on systems theory to bind all elements of an organisation.

Chapter 2 undertook the task of deconstructing organisational innovation by adopting a systematic literature review. Once the deconstruction of organisational innovation was complete, a new description via a definition of what is the concept of organisational innovation was given. Chapter 3 covered the theoretical background of privatisation, technological innovation, and digitisation and digitalisation. This second task opened up a window to the initial indication of the potential relationship and or similarities that exist between organisational innovation and privatisation. **(2)** This served as a means to answer research question two, that is, what is the relationship, if any, between organisational innovation and privatisation and is privatisation a form/aspect/an act of organisational innovation? From the theoretical background and comparison with the in-depth data obtained from the systematic literature review, it can already be argued that privatisation is indeed an act of organisational innovation. However, it needs to be validated once again. Additionally, the key problem that privatisation supposed to resolve is the principal-agent problem (Jensen, M. C. 1986), in which, by definition, the principal-agent problem discusses the misalignment of direction between leadership and ownership; once again, resources that are available to any organisation.

(3) To better understand the differences (or similarities that could exist between technological innovation and digitisation and digitalisation), and at the same time, to understand better how **(1)** it affects the potential differences or similarities of technological innovation and digitisation and digitalisation. **(4)** Upon determining the potential relationship, this study undertook the task of answering the third question,

that is, how does organisational innovation/privatisation adopt technological innovation/digitisation and digitalisation to affect firm performance?

3.6 Summation of chapter 3

The primary objective of this chapter was to better understand the knowledge of privatization, digitization & digitalization. Additionally, to see how these areas of knowledge relates to organizational innovation. The final objective of this chapter is to also identify potential gaps that may exists within the body of knowledge in relation to organizational innovation.

As a quick recap, by conducting a thorough systematic literature review on organizational innovation, chapter 2 came up with P1: A new sophisticated conceptualization and understanding of organizational innovation that is more cohesive and holistic. In chapter 3, the literature revealed that there were two key findings. The first was on the act of privatization itself. The main purpose of privatization was to ensure that the state-owned enterprise can be more self-dependent and grow more effectively to compete with the market players. There was a need to ensure that services are more efficiently given to consumers. To ensure services are based on market demand, a new management approach was required to be injected into the state-owned enterprise. Other aspects of the state-owned enterprise that required changing was processes, policies, organizational structure, overall ownership structure and how work is done, i.e. work culture.

Ironically, in conducting the systematic literature review on organizational innovation, there were four key aspects that emerged, i.e. change in structure (organizational and or ownership), changes in ownership, changes in work culture and changes in process and policy. Due to these findings, the second proposition was developed; P2: Privatization can be considered as an act or a form of organizational innovation.

Studies also show that there is correlation between organizational innovation and the types or level of technological innovation. From a theoretical standpoint, it was evidently clear that technological innovation played an integral role for the success of organizational innovation. This is even more so for privatized state-owned enterprises.

Technological innovation provides the edge for privatized state-owned enterprises to ensure efficiency within the organization as well as introducing new products and services. In general, the description of technological innovation was accepted as essentially the introduction of new products, processes and or the introduction of technological variations and how these new products and technology was developed.

This is where the theory becomes interesting as in the digital economy, it is argued that the two main activity (digitization & digitalization) is the main activity required to be undertaken to ensure an organization's digital economy strategies can be realized. Digitization was accepted as the movement or flow of converting non-digital based data into a digital based data. Meantime, digitalization was described as the using of emerging technologies to create, develop and build new business strategies, new products and or new services.

By mapping both technological innovation and digitization & digitalization from the perspective of the input-process-output, there appear to be similarities. But this key finding has not been explored and discussed. Thereby creating the third proposition: P3: Technological innovation can be considered as an act or a form of digitization & digitalization.

The final piece of the puzzle came out from both chapter two and three was looking at the end game or how the first three propositions contribute towards organizational performance. This final portion of the conundrum is P4: There is a significant connection between organizational innovation and privatization with technological innovation and digitization & digitalization towards organizational performance.

It was the combination of all four propositions that lead towards the development of this research framework mentioned in figure 21 discussed above. And it is this framework that will dictate the design and approach of the methodology in the next chapter.

CHAPTER 4 METHODOLOGY

4.1 Introduction

This chapter provides a description of the methodology adopted to obtain data on proving or disproving that (i) privatization is an act or a form of organizational innovation, and (ii) digitization and digitalization is a form or an act of technological innovation. The adopted methodological approach, namely a case study approach using qualitative semi-structured interview and secondary documents (such as audited company reports and verified company websites), will be outlined and described in detail. As an initial stage researcher, relevance to this study is not exempted from potential personal values and biases (even with efforts to reduce or negate such biasness). Ethical considerations are also described in this chapter. Both could be found at the tail end of this chapter, respectively.

The methodology chapter will cover two overarching areas in how this research was conducted, i.e. (i) an unorthodox operational framework was developed to answer research one and, (2) a flowchart illuminating the stages that this research went through in the selection of methodology and its justifications.

In moving forward with this research, an operational framework was developed, as per Figure *n*. The main purpose of the operational framework was due to the complexity that was drawn from the foundational continuous confusion of what organizational innovation is. Thereby forcing the issue, first and foremost, to resolve this primordial question. The description of organizational innovation has been elusive for more than two decades. Therefore, a more unorthodox approach of adopting a systematic literature review to first and foremost understand and recommend a concept of organizational innovation was done. This makes the entire approach very unconventional, i.e. the adoption of a systematic literature review to answer the first research question.

Following the systematic literature review, a more conventional review of the remaining bodies of knowledge was conducted. The main rational for not conducting a systematic literature review on privatization, technological innovation and digitization & digitalization is due to the non-complexity in the description of the three bodies of

knowledge. Hence, resulting in a more standard review was conducted on the other areas of interest. Finally, a research framework was introduced at the end of this operational framework.

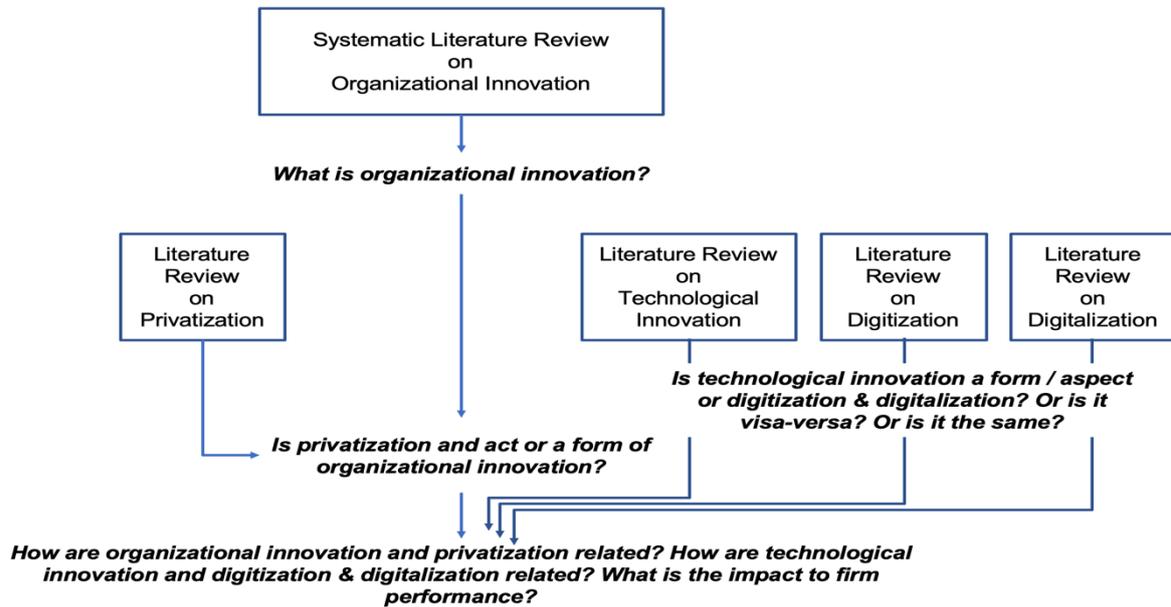


Figure 21: Operational Framework

Source: author

Additionally, the figure below illustrates the flow that this research went through in the strategic selection of the research strategy in answering the research question of this thesis. This figure shows how the operation framework is connected to the selection of the strategies. It was based on the research onion by Saunders and Lewis (2012). This research onion is depicted in figure 3 below.

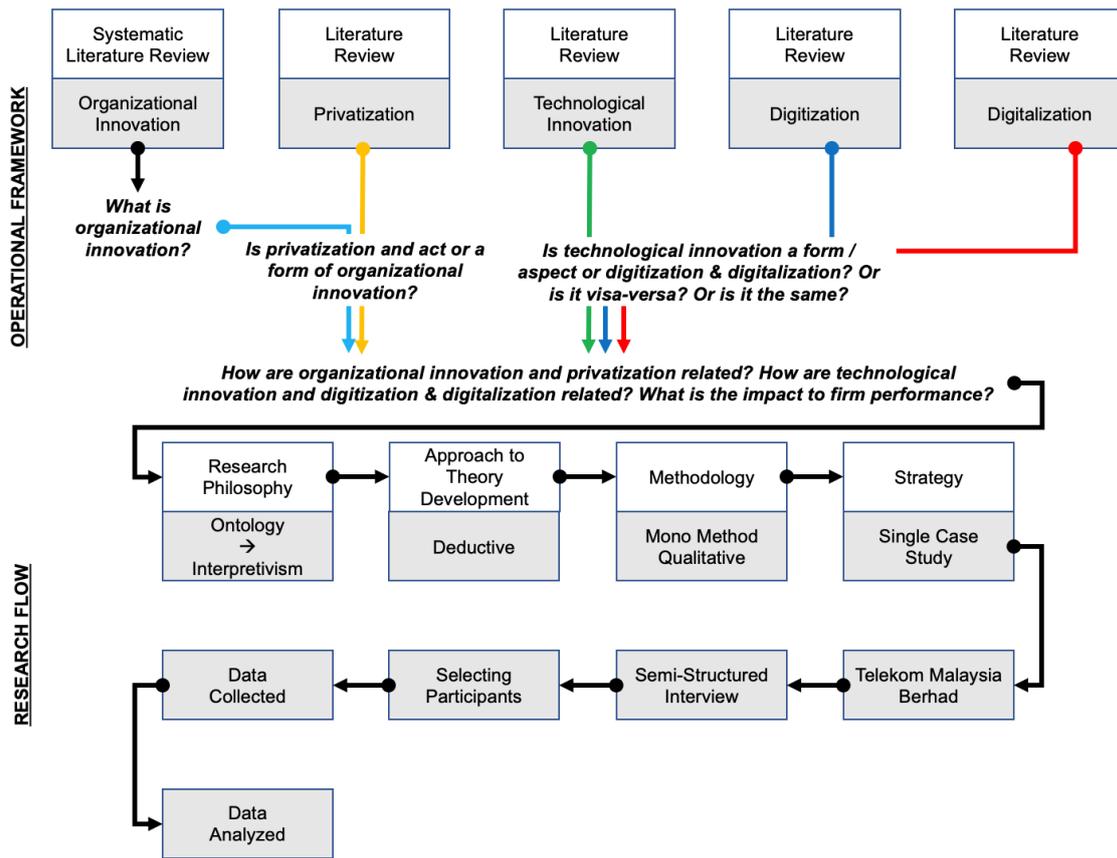


Figure 22: Operational Framework and Research Flow
(source: author)

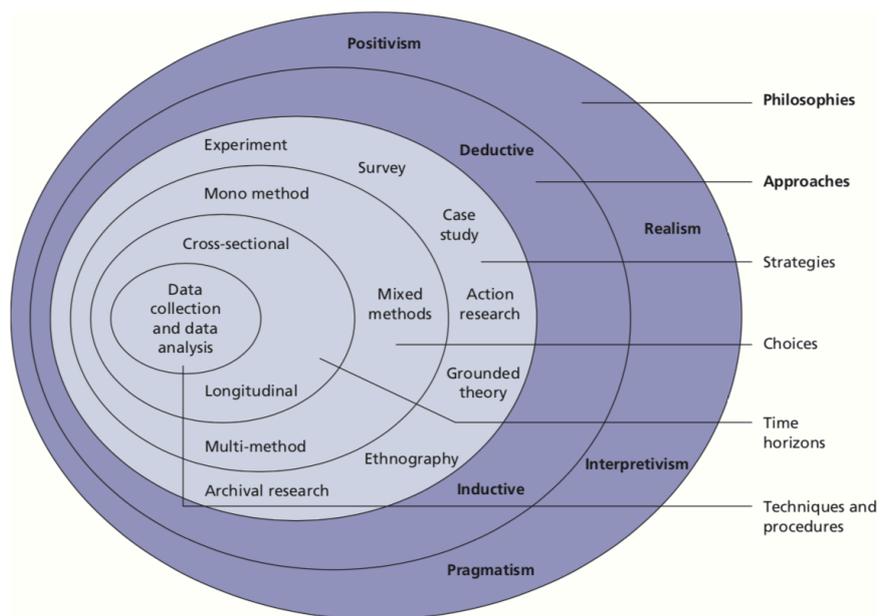


Figure 23: Research Onion
(Saunders & Lewis, 2012)

4.2 Research Philosophy

The philosophy that this research will adopt is more of an **ontology**. This is mainly due to the specific nature of how **ontology looks at reality that mimics the realism of how organizational innovation or privatization is with special regards to digitization and digitalization**. The mimic refers to that nature is reality and subjectivism takes on the view that all assumptions and structure will change according to many different factors (such as economy, culture, or individuals).

There were two other philosophies that was discussed by Saunders and Lewis (2012). The other philosophies included epistemological and axiological.

Epistemology is less abstract where the discussion revolved around assumptions about specific knowledge being studied. Specific data (such as numerical, textual, facts to interpretations, narratives, stories, fictional and visual) coming from different disciplines of business and management is accepted as genuine. And as such, provides a wider range of methods. Nonetheless, epistemological is closely related to quantitative research methods that is accepted by the scholarly world as a better alternative to provide generally accepted scientific proof. However, it was also argued that with such precise approach was not necessarily taking into consideration the different elements and aspects of an organization and its business. Thereby leaving the findings possibly lacking realism and the dynamics of businesses and organizations.

The final philosophy refers to **axiology**. Axiology discusses researcher's ethic, i.e. in essence how researchers manage their own moral or values and of those participating in the study. For example, this study has put more emphasis on the value and importance of data collection obtained via interviews. It is believed that the value of interviews is more personal that allow a more rich and deeper data collection on the phenomenon explored.

Therefore, it is worth reiterating that the research philosophy of ontology was a more pertinent approach in this research was based on the way ontology looks at the reality or at the very least simulates reality. Additionally, it is because the transition a state-

owned enterprise to a privatized state-owned enterprise affected many aspects of an organization. These aspects are such as the way work changes, policy, processes or even the types of leadership.

Within the same breath, in selecting ontology as the primary philosophy, this study will also adopt the **philosophy of interpretive** as the nature of **interpretive looks at reality as dependent on changes and comes in different shapes and interpretative form**. An interpretive approach is more relevant to this research as it focusses on exploring the complexity of a social phenomenon with the intent to obtain a better understanding of why such a phenomenon can exist (Collis & Hussey, 2013). Additionally, the philosophy of interpretivism was selected as culture, language dictates the different experiences individuals go through. This is especially critical in this research as seeking and exploring similarities between organizational innovation and privatization is dependent on how society constructs opinions and beliefs.

To further justify this selection, in comparison there are four other philosophy's that was taken into consideration. I.e. positivism, critical realism, postmodernism and pragmatism. Positivism believes that researchers can only accept those that can be directly observed and can be measured. This eliminates the notion of looking into elements such as emotions and thoughts, which could be argued as a more total approach in understanding a phenomenon. In trying to seek the answers to the research questions (understand the relationship organizational innovation and privatization, technological innovation and digitization & digitalization, its impact on organizational performance) there are probably many different aspects that needs to be looked into. Aspects such as how participants understand what organizational innovation is, what is privatization and why was privatization the strategic choice to ensure a state-owned enterprise to be more innovative. It is the restrictive view that positivism gave that eliminated itself from being selected as a strategic philosophy adopted.

The next strategic philosophical approach considered was critical realism. Critical realism focusses on language and culture of social constructionism. It essentially brings the best of interpretivism and positivism, i.e. clarifying what can be seen and what can be experienced. Reality is taken as an external component and remains

independent even though it is not obtainable via sight and data on it. Critical realist argue that human senses can and is able to mislead us. Critical realist argues that there are two essential ways to better understand the world we live in. The first depends on sensations and the events that took place. The second is this “reverse engineering” or working backwards to better understand a phenomenon. Thereby, to better understand a phenomenon, researchers would need to understand the bigger picture by understanding the social structures that gave rise to the phenomenon. This can be obtained by looking at both the practical and theoretical processes. Which in turn would force the researcher to look at the historical aspects in a more in-depth manner and understand how time would change the phenomenon being studied.

Critical realism could easily be adopted in this research as privatization too place more than 2 decades ago. However, it is not the historical process that is of interest. It is the intent and rationale behind adopting privatization as a strategic avenue to ensure state-owned enterprise can be more autonomous and more innovative.

Postmodernism was the next philosophical approach that was considered. Postmodernism is a direct response to modernism, i.e. that modernism is wrong. While it may not replace modernism but the two “co-exists” but it questions almost everything that was explained. Researchers taking this philosophical approach believes in the plight to uncover and continue to highlight questions that defies existing realities.

However, postmodernism “rejects” many concepts such as scientific methods, logic, reasoning and deductions. This is done by developing new “truths” via new version of “reasoning”. Therefore, resulting in continued growth of knowledge gaps between postmodernism with other philosophical approaches. Simply put, researchers adopting the postmodernism approach is looking to uncover and put under the microscope existing prevailing realities. A postmodernism researcher would put more emphasis on organizational concepts and theories and leave or discard potentially relevant perspectives such as management, performance, transformation and innovation. It is for this key reason that the postmodernism was not adopted for this research.

The final philosophical approach is pragmatism. Pragmatism emphasizes that ideas are only pertinent where the concept is supported by action. It is also an attempt to reunite objectivism and subjectivism as well as the facts and different values. In a research using pragmatism as a philosophical approach, the researcher takes into consideration all theories, concepts, ideas that is not in its abstract form. These researchers do this by associating and relating these theories, concepts and ideas to action, i.e. practical value. Practical values here refer to the real-world effects of ideas, concepts and theories.

The pragmatist approach may seem to be the most appropriate philosophy to be adopted in this research. Especially so when a research is done with the aim to contribute towards real life solutions that would bring value to the knowledge being studied. However, there are several ways of construing the world and how the world works. Therefore, there are no one and only one point of view that can provide a holistic perspective. The world comprises of many different realities. As this is the principal intent of the pragmatism approach, it is deemed as not a suitable for the development of this research as there is also a critical demand for a more theoretical contribution and findings.

4.3 Research Approach

Moving to the next level of the research onion as prescribed by Saunders and Lewis (2012), the next decision to be made was on the type of approach to adopt in terms of whether data is collected to test theories or to build theories. In general, two types of approaches look into the nature of association between research and theory. At its simplest explanation, what differentiates the two theories is whether data is collected to test theories or to build theories (Bryman & Bell, 2007). These theories are:

Deductive Theory

This is where a study comes up with a theory that needs to be tested or confirmed based on observations or findings.

In other words, theory → observations/findings

Inductive Theory

This is where a theory is developed based on data collected.

Simply illustrated; observations/finding → theory

Following through from the above, this research has adopted a deductive approach where propositions were developed based on (systematic) literature reviews conducted. Additionally, the theory needs to be tested in a specific context to see if it holds in comparison to the circumstance that it was initially derived. And while a deductive approach (or even the inductive approach) seems to be linear where all steps are laid out in sequential order, there is still room where the theory can be further refined based on the findings of the data collected (Bryman & Bell, 2007). This could be due to several different reasons, such as new theories being developed while the researcher is gathering data to come up with any form of conclusions.

In adopting the deductive theory, proper consideration was given to the alternative, i.e. the inductive theory. In essence, the inductive theory approach reverses the process, i.e. instead of coming up with a theory to be tested through observation or through findings, a theory is developed based on observations and or findings. The rationale for this approach for the researcher to “get a feel” and get a better understanding in the phenomenon that is being researched. And once the situation and a more substantial understanding is achieved, a theory is developed and proposed. It could be argued that this approach is more realistic because it could be argued that a deductive approach is rigid that does not take into consideration potential enlightenments on a specific phenomenon.

The main reason for dropping the inductive approach is based on its direction of bringing from specific to general and where the conclusion is probabilistic, i.e. the conclusion is not certain.

4.4 Research Methodology

Qualitative Approach

A qualitative approach, however, is normally used as a means to collect data (such as interview) and analyze data (such as data categorization) that will ultimately churn out non-numerical data. Qualitative research provides an avenue to explore the meaning individuals or a group of individuals assigned to a social or human problem (Creswell, 2002). Collis and Hussey (2013) argued that qualitative research involves an inductive

approach where data is usually collected on the onset, resulting in a theory (Collis & Hussey, 2013). This approach is normally linked to an interpretative philosophy (Collis & Hussey, 2013). In the selection of which approach to be opted depends on what is being researched. It could be argued that the qualitative approach takes on seeking a solution to the problem identified from a more holistic manner, in which a quantitative approach is unable to achieve (Gunnarson, 2002). As this research is bringing together three major bodies of knowledge, it is believed that a qualitative approach would be most suitable to accomplish the objectives of this study; as the main premise of this research is dealing with observations, ideas, sentiments, beliefs, and opinions. These are just some areas that a quantitative approach would not be able to measure.

By meticulously analysing the data obtained using qualitative methods, a more comprehensive understanding of thoughts, ideas or opinions with regards to organizational innovation can be obtained. This is mainly due to how organizational innovation is perceived within an organization, which changes or differs according to the position held in an organization or education background, or perhaps even the length of stay in an organization.

In comparison, a quantitative approach is largely used as a means for data collection method (for example, questionnaire) or even data analysis technique (for example, an interview) or data analysis process (for example, data categorization) that churns out or utilizes numerical data. Creswell (2002) argued that quantitative research is a way to test objective theories by examining the possible relationship among different variables. Bryman and Bell (2015) stated that quantitative research focusses on the collection and analysis of data. The quantitative approach uses a deductive approach, while the theory guides the research (Collis & Hussey, 2013). Fundamentally, a deductive approach starts with a theory. Then a hypothesis is developed. Moving to data collection and finally the findings and analysis will support or reject the hypothesis. A quantitative approach is normally related to positivism (Saunders & Lewis, 2012) and utilizes questionnaires, structured interviews or structured observations as a means to collect data (Saunders & Lewis, 2012).

Table 3 above illustrated a clear difference between the qualitative and quantitative research based on the four different areas, namely the characteristics, where the

difference lies in how or what is being examined. Mainly a quantitative approach measures numerically, while the qualitative approach measures different opinions or meanings that can be used to potentially derive relationship in proposing a new theory. Secondly, the quantitative differs from the qualitative approach, where the former tests the accurateness of proposed hypothesis, while the latter analyze the potential trends from observations or data collected from interviews, to recommend a potential new theory. Similarly, a quantitative approach adopts a positivism philosophy where theory is tested that could potentially shed light to existing theory, and a qualitative approach adopts an interpretivism philosophy where the emerging trends and potential new categories are defined while in the process of analysing or collecting data. Finally, a quantitative approach normally adopts a more experiment-based approach in data collection where generally, data can be coded into statistical tools to come to conclusions. Meantime, a qualitative approach normally uses approaches such as case studies or a more narrative-based approach to obtain data to be analyzed by identifying potential trends that could emerge.

By looking at the two approaches, i.e. quantitative and qualitative, the qualitative approach was decided to be the best approach in approaching this research. There are two main rationale for this decision. The first being from the research philosophical perspective. According to Saunders and Lewis (2012), an ontological interpretivism normally adopts a more qualitative approach where smaller samples are analysed. But more so, the second rationale lies in the main research question itself. The main research question is “How are organizational innovation and privatization related? How are technological innovation and digitization & digitalization related? What is the impact on firm performance?” This is a more exploratory research where a more personal perspective and opinion was being looked into. It is critical to obtain such perspectives as the requirement, or more pertinent to this research, is the understanding behind the instruction given to a state-owned enterprise to be more autonomous via the process of privatization. And why such a transition or transformation is critical for a state-owned enterprise. What makes this research even more unique is that, the act of privatization took place more than two decades ago. And still with the digital economy upon the business worlds today, the much-needed transformation is direly needed.

4.5 Research Strategy

In the decision of adopting a single case study, there were seven other approaches, i.e. experiment, survey, archival and documentary research, ethnography, action research, grounded theory and narrative inquiry.

The primary reason behind the selection of a single case study approach was due to how a case study would be able to answer the research question. Case study is defined as **an approach to conduct research that includes an empirical enquiry of a particular phenomenon that can be obtained by looking at a real-life condition or setting** (Robson, 2002). Via a case study approach, researchers were able to obtain insights to issues that ask 'why', 'how' and 'what', which evidently is aligned to a surgery-based approach to data collection (Saunders & Lewis, 2012). The normal approach to collect data in adopting a case study approach would include, for example, interviews, observations, analysis of documents, and questionnaires (Saunders & Lewis, 2012). Most of the time, in adopting a case study approach, researchers would normally make use of and adopt triangulate multiple sources of data collection. Triangulation here means that the study uses data collected from different means within one study. This is to ensure that the data will tell a similar story.

Yin (2003) argued that there are four case studies strategies, namely single case (this is normally used when the area of study is critical, extreme or unique in its own right. At the same time, a single case study could also be adopted to provide focus to a research problem that others may not have looked at), multiple case (this refers to studying more than one case study), holistic case (treating an organization as a representation to similar studies due to the researcher having an affiliation to the case study), and embedded case (this refers to a study looking at specific units or sub-units within the case study).

The case study approach has been used in many different aspects of business management research. Based on the systematic literature review conducted on organizational innovation, the majority of approaches used were case studies. Table 1 below shows this distinction.

From Table 1 above, it can be seen that survey was mostly used as a means to collect data for organizational innovation-related studies. But, in comparison, the case study approach came a close second. However, once combined with a comparative case study, it can be argued that a case study approach has proven to be a preferred method on the way data was collected. Others denoted methods such as field trips. This breakdown can be seen in Figure 23.

However, there are several concerns in adopting a case study approach. And in general, there are three overarching areas that a case study approach is constantly criticized on. The first being the lack of rigor. It is argued that a case study approach does not have a proper systematic process (Maxwell, 2013). However, a mitigation suggested by Yin (2009) is to ensure validity and reliability. This is done by (i) using multiple source of evidence, (ii) to establish chain of evidence, (iii) to have key informants, (iv) to review draft case study report, (v) to do pattern matching, (vi) to do explanation building, (vii) to address rival explanation, (viii) to use logic models, (ix) to use theory in single case studies, (x) to use case study protocol, and finally, (xi) to develop case study database.

Secondly, is its inability to generalize the results. Results from a small sample base cannot be statistically generalized but can be theoretically generalized (Yin, 2009). However, the purpose of a case study is not to generalize what was found and assume it is the same or similar to other studies or cases (Bryman & Bell, 2007). The main reason behind a case study is to address specific “quirks” or uniqueness of the specific case study. And in this study, a singular case study was adopted due to the uniqueness of the organization. Finally, this approach is resource intensive. What this means is that, in general, a case study approach takes a longer time.

Alternatively, the experiment approach would not best fit this research as it would require a much longer time to conduct. Additionally, the cost factor also contributed for this approach not being selected. But at the fundamental level, the experiment approach is more closely related to the quantitative approach and by default is not suitable for this research. Similarly, is the next option, i.e. survey, is also closely associated to a quantitative approach. This almost automatically discounts the survey approach for this research. The next potential approach is the archival research

approach, which can be used for either the qualitative or quantitative approach. To some extent, the definition of the archival approach is essentially obtaining data from sources such as emails, letters, organizational records, notes, minutes of meetings, policy statements, press releases, publications and, media sources. Saunders and Lewis (2012) argued that the archival research can be used as a primary approach for gathering data, this approach could also be used to obtain secondary data. It is in that perspective; this research has also adopted the archival research approach as a secondary data collection for analysis to support to dispel findings from the primary approach of case study.

The following option is the ethnography. Ethnography is generally used when the research is covering areas on cultural and or the social world of a specific or identified group. One of the main applications of the ethnographic approach is in market research. A market research is when an organization is wanting to obtain a deeper comprehension of their target market and the experiences their target market prefers or experienced. It is due to the base nature of the ethnographic approach that eliminates itself from this preferred method for this research. The action research approach is more of an iterative process that is typically adopted in an effort to seek a potential solution to real problems faced by an organization. The action research is participative and collaborative in nature. As this research is not about seeking a solution to any specific or general problems faces by an organization, the action research approach was deemed as not an appropriate approach. Even though, it must be stated that a follow-up from this research (for future research) the action research could be an approach that could be considered in seeking specific solutions as to why innovation is continuously elusive for large organizations.

The final two potential approach are the grounded theory and the narrative inquiry approach. Grounded theory is basically used to develop theoretical explanations. However, the core of grounded theory is normally closely tied to the inductive approach. And as this research is adopting the deductive approach, the grounded theory is not suitable as an approach. The final potential approach is the narrative inquiry. Narrative, as the word suggests, is a about a personal encounter, a story which describes or interprets an event or events. The process of the narrative approach is time intensive and normally would address a smaller number of participants. However,

as this research requires a wider range of participants from all level of management, makes the narrative approach not entirely suitable. However, the essence of how the narrative inquiry outlines the structural elements of how data from an interview is captured is interestingly enough to be adopted as part means to transcribe case study interviews.

4.5.1 Case Study

Case study is defined as **an approach to conduct research that includes an empirical enquiry of a particular phenomenon that can be obtained by looking at a real-life condition or setting** (Robson, 2002). Via a case study approach, researchers were able to obtain insights to issues that ask ‘why’, ‘how’ and ‘what’, which evidently is aligned to a surgery-based approach to data collection (Saunders & Lewis, 2012). The normal approach to collect data in adopting a case study approach would include, for example, interviews, observations, analysis of documents, and questionnaires (Saunders & Lewis, 2012). Most of the time, in adopting a case study approach, researchers would normally make use of and adopt triangulate multiple sources of data collection. Triangulation here mans that the study uses data collected from different means within one study. This is to ensure that the data will tell a similar story.

Yin (2003) argued that there are four case studies strategies, namely single case (this is normally used when the area of study is critical, extreme of unique in its own right. At the same time, a single case study could also be adopted to provide focus to a research problem that others may not have looked at), multiple case (this refers to studying more than one case study), holistic case (treating an organization as a representation to similar studies due to the researcher having an affiliation to the case study), and embedded case (this refers to a study looking at specific units or sub-units within the case study).

The case study approach has been used in many different aspects of business management research. Based on the systematic literature review conducted on organizational innovation, the majority of approaches used were case studies. Table 1 below shows this distinction.

Year	Authors	Methods	
2017	Radaelli, G., Currie, G., Frattini, F., Lettieri, E. Torugsa, N.A., Arundel, A. Bunduchi, R Stanko, M.A., Henard, D.H. Brennecke, J., Rank, O. Trott, P., Simms, C.	Comparative Case Study Qualitative Case Study Mix Method Survey Case Study Scenario-Based Experiment	
	Sommer, L.P., Heidenreich, S., Handrich, M.	Qualitative	
	Bettencourt, L.A., Bond, E.U., Cole, M.S., Houston, M.B. Ollila, S., Yström, A.	Interview	
	Lin, H.-E., McDonough, E.F., Yang, J., Wang, C.	Survey	
	Enkel, E., Heil, S., Hengstler, M., Wirth, H. Shaner, M.B., Beeler, L., Noble, C.H. Arora, A., Athreye, S., Huang, C.	Quantitative Survey Survey	
	Beverland, M.B., Micheli, P., Farrelly, F.J. Joshi, A.W.	Interviews Survey	
	Aalbers, R.H.L., Dolfsma, W., Leenders, R.T.A.J.	Multi Case Study	
	Thanasopon, B., Papadopoulos, T., Vidgen, R. Restuccia, M., De Brentani, U., Legoux, R., Ouellet, J.-F.	Survey Interviews	
	Sala, A., Landoni, P., Verganti, R. Schweisfurth, T.G., Herstatt, C. Tavassoli, S., Karlsson, C.	Case Study Interview Survey	
	Janssen, M., Stoopendaal, A.M.V., Putters, K. Langner, B., Seidel, V.P.	Observations Interview Interview	
2016	Salter, A., Ter Wal, A.L.J., Criscuolo, P., Alexy, O.	Case Study	
	Kawakami, T., Barczak, G., Durmuşoğlu, S.S. Globocnik, D., Salomo, S.	Survey Survey	
	Shu, C., Wang, Q., Gao, S., Liu, C. Schweisfurth, T.G., Raasch, C.	Survey Survey	
	Wan, F., Williamson, P.J., Yin, E. Simonse, L.W.L., Hultink, E.J., Buijs, J.A. Wan, F., Williamson, P.J., Yin, E.	Case Study Qualitative Case Study Survey	
	Enkel, E., Heil, S.	Case Study	
	Wendelken, A., Danzinger, F., Rau, C., Moeslein, K.M.	Case Study	
	Burcharth, A.L.D.A., Knudsen, M.P., Søndergaard, H.A. Lin, F.-R., Hsieh, P.-S.	Survey Case Study	
	Matsuno, K., Zhu, Z., Rice, M.P.	Interview Survey	
	2014	Wei, Z., Yi, Y., Guo, H.	Survey

	Nelson, A., Earle, A., Howard-Grenville, J., Haack, J., Young, D.	Case Study
	Cheng, C.C.J., Huizingh, E.K.R.E.	Survey
	Lin, H.-E., McDonough, E.F.	Questionnaire
	Dmitriev, V., Simmons, G., Truong, Y., Palmer, M., Schneckenberg, D.	Case Study
	Kodama, M., Shibata, T.	Case Study
	Mezger, F.	Case Study
	Bogers, M., Horst, W.	Case Study
		Action Research
	Zeschky, M., Daiber, M., Widenmayer, B., Gassmann, O.	Case Study
	Ilevbare, I.M., Probert, D., Phaal, R.	Survey
	Sørensen, F., Sundbo, J., Mattsson, J.	Case Study
	Bohlmann, J.D., Spanjol, J., Qualls, W.J., Rosa, J.A.	Interview
2013	Wei, Y., O'Neill, H., Lee, R.P., Zhou, N.	Survey
	Authors of DocumentSchultz, C., Salomo, S., De Brentani, U., Kleinschmidt, E.J.	Survey
	Ganter, A., Hecker, A.	Survey
	Sarpong, D., MacLean, M.	Case Study
	Authors of Document Lawson, B., Samson, D., Roden, S.	Survey
		Case Study
	Marion, T.J., Friar, J.H., Simpson, T.W.	Case Study
2012	Chang, Y.-C., Chang, H.-T., Chi, H.-R., Chen, M.-H., Deng, L.-L.	Survey
	Wright, C., Sturdy, A., Wylie, N.	Questionnaire
	Romero, I., Martínez-Román, J.A.	Survey
	Love, J.H., Roper, S., Bryson, J.R.	Survey
	Talke, K., Salomo, S., Kock, A.	Survey
	Kramer, J.-P., Marinelli, E., Iammarino, S., Diez, J.R.	Interviews
2011	Standing, C., Kiniti, S.	Case Study
	Chiaroni, D., Chiesa, V., Frattini, F.	Case Study
2010	Evangelista, R., Vezzani, A.	Survey
	Gumusluolu, L., Ilsev, A.	Survey
2009	Elmquist, M., Le Masson, P.	Case Study
	Armbruster, H., Bikfalvi, A., Kinkel, S., Lay, G.	Survey
	Tether, B.S., Tajar, A.	Survey
2008	Liao, S.-h., Fei, W.-C., Liu, C.-T.	Questionnaire
	Bodas Freitas, I.M.	Survey
2007	Dittrich, K., Duysters, G.	Interview
2006	Barlow, J., Bayer, S., Curry, R.	Case Study
2005	Massini, S., Lewin, A.Y., Greve, H.R.	Survey
2002	McDermott, C.M., O'Connor, G.C.	Multiple Case Study
1998	An inventory of organizational innovativeness	Questionnaire
	Harryson, S.J.	Case Study
1997	Irani, Z., Sharp, J.M.	Case Study
	Turpin, T., Garrett-Jones, S., Rankin, N.	Case Study
1996	Muffatto, M., Panizzolo, R.	Case Study

	Gilbert, M., Cordey-Hayes, M.	Case Study
1995	Calantone, R.J., Vickery, S.K., Dröge, C.	Case Study
1994	Hariato, F., Pennings, J.M.	Case Study
1992	Zmud, R.W., Apple, L.E.	Mix Method
1991	Iwamura, A., Jog, V.M.	Survey
1990	Granstrand, O., Sjölander, S.	Case Study
	Meyers, P.W.	Case Study
1989	Cainarca, G.C., Colombo, M.G., Mariotti, S.	Field Study
1986	During, W.E.	Case Study

Table 3: Method used over the years
(source: author)

From Table 3 above, it can be seen that survey was mostly used as a means to collect data for organizational innovation-related studies. But, in comparison, the case study approach came a close second. However, once combined with a comparative case study, it can be argued that a case study approach has proven to be a preferred method on the way data was collected. Others denoted methods such as field trips. This breakdown can be seen in Figure 24.

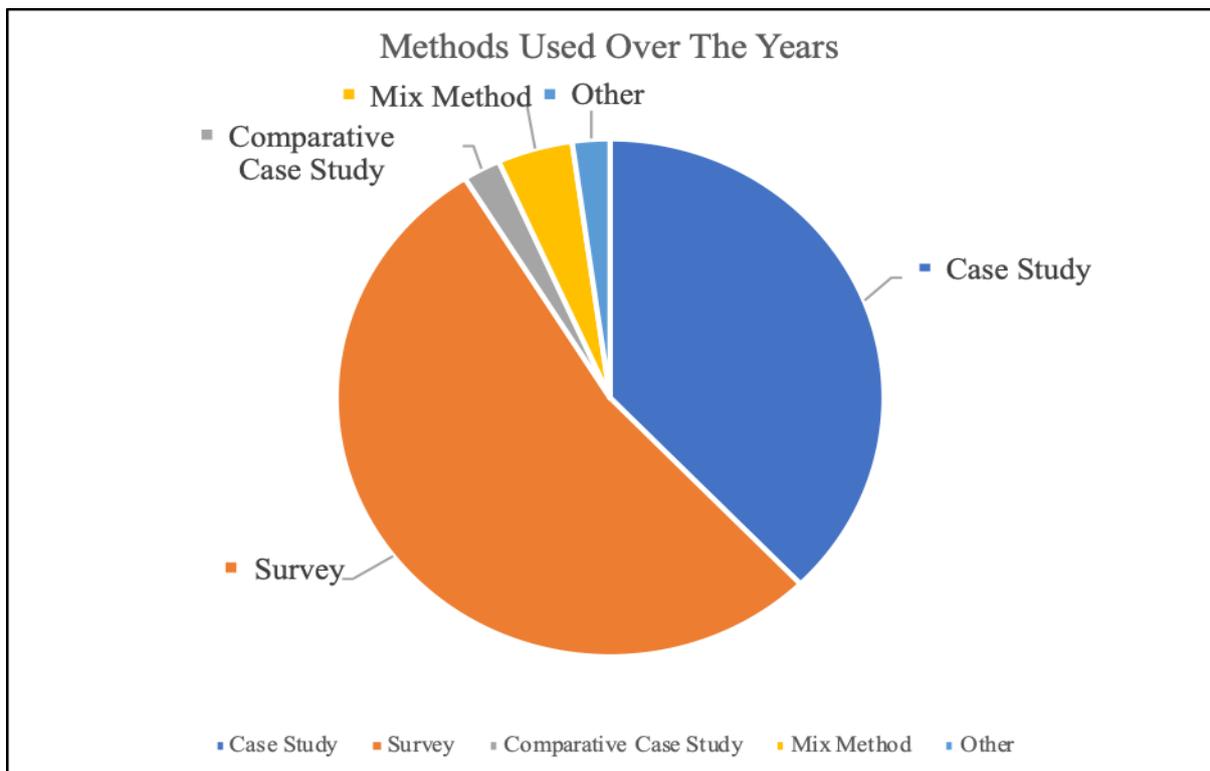


Figure 24: A Breakdown of Methodology Adopted based on Systematic Literature Review
(source: author)

However, there are several concerns in adopting a case study approach. And in general, there are three overarching areas that a case study approach is constantly criticized on. The first being the lack of rigor. It is argued that a case study approach does not have a proper systematic process (Maxwell, 2013). However, a mitigation suggested by Yin (2009) is to ensure validity and reliability. This is done by (i) using multiple source of evidence, (ii) to establish chain of evidence, (iii) to have key informants, (iv) to review draft case study report, (v) to do pattern matching, (vi) to do explanation building, (vii) to address rival explanation, (viii) to use logic models, (ix) to use theory in single case studies, (x) to use case study protocol, and finally, (xi) to develop case study database.

Secondly, is its inability to generalize the results. Results from a small sample base cannot be statistically generalized but can be theoretically generalized (Yin, 2009). However, the purpose of a case study is not to generalize what was found and assume it is the same or similar to other studies or cases (Bryman & Bell, 2007). The main reason behind a case study is to address specific “quirks” or uniqueness of the specific case study. And in this study, a singular case study was adopted due to the uniqueness of the organization. Finally, this approach is resource intensive. What this means is that, in general, a case study approach takes a longer time.

In that respect, the selection of a case study is not as easy as it may seem (Yin, 2003). To be the organization that sponsored this study cannot be the main reason for its selection, though this reason should not be watered down and placed as less important. There are several different rationales as to why this single organization was selected as a sole case study for this research.

The criteria in the selection of a case study for this research was based on the following:

- The organization must be previously owned by the Government
- The organization must already be privatized
- The organization must already be running innovation programs
- The organization must already be running digitalization and digitization initiatives
- The organization must already be able to measure existing innovation programs

- The organization must already have international offices

The development of the criterion above was based on the systematic literature review conducted in chapter two and three of this thesis. The first two criteria were specifically taken from the definition of privatization and a state-owned enterprise. The third, fourth and fifth was adapted from the technological innovation, digitization & digitalization. And the final criteria were adapted to measure existing versus future growth of the case study (pre and post digitization & digitalization).

Additional to the criteria's set in the selection of the organization, it was also imperative to identify an organization in the technology sphere. This is due to how technology is rapidly growing. More importantly, how technology is forcing the market and especially large incumbent organizations to adopt and embrace. By adding this inclusion strategy, it brings down the scope of organizations to a smaller number. Finally, there have been numerous studies taken place in countries, such as China (Lin 2017, Freund, Sidhu 2017a, Chen, Y., Igami, Sawada & Xiao 2016b, Jiang, Wang 2017, Chen et al. 2016, Hovey, Naughton 2007, Freund, Sidhu 2017b, Xu et al. 2005, Choi et al. 2011). But not many are opening up the microscope on other emerging countries in the South East Asia region, more particularly, in Malaysia(Cheong 2011, Ab Razak et al. 2008, Woon 1989, Amin 2014, Ting, Lean 2015).

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4.5.2 The Telecommunication Industry

Technological innovation, digitization and digitalization are critical to organizations today, but more so for high technology-based companies such as telecommunication companies. The transition that telecommunication companies go through is even more critical in comparison to other types of technology-based company. One of the main reasons is because traditional voice services are fast becoming obsolete and being taken over by internet-based voice and web-based text services. Other types of technology-based company are hardware providers (for example, servers' companies, personal computing, or wearable) or microchip-based companies. These types of organizations face their own set of challenges as these organizations are deemed as technology used as either part of a whole (for example, a microchip in a computer). However, telecommunication companies are an interesting piece of specimen to look at because not only almost all telecommunication companies started off as Government-owned, but the industry of telecommunication has drastically changed from a pure voice provider to a more convergent service-based organization that maintains/provides backbone services as basic as internet services. Convergent based here refers to bringing together telecommunication infrastructure services (such a broadband and internet access), secured network (such as private networks), entertainment (such as movies or any digital-based content), and internet-based services (such as cellular or mobile-based services).

Telecommunication companies depend highly on technology and technological innovation to survive and grow. This is especially even more so as borders are rapidly breaking apart, making way for a more global-based citizen demanding a ubiquitous uninterrupted service for all aspects of life and business. The internet has not only destroyed services, such as the typical voice-based service, fax services, global connectivity or the payphone services; the internet has also forced telecommunication companies to come up with new services (by adopting and adapting to the digital economy, digitization and digitalization) to replace the revenue they have lost.

As a result of the above inclusion strategies, Telekom Malaysia Berhad (TMB) was selected as the case study. Firstly, Telekom Malaysia Berhad is an organization that was formally owned by the Malaysian Government where it was first established in 1946, known then as Malayan Telecommunication Department. Post Malaysia's

independence in 1957, the Malayan Telecommunication Department was renamed Jabatan Telekom. In 1987, in line with the Malaysian Government's privatization plans for its state-owned enterprises, Jabatan Telekom Malaysia was privatized and became Syarikat Telekom Malaysia. In order to manage its finances, Syarikat Telekom Malaysia was listed in 1990; where it had a market capitalization value of MYR 27 Billion or 10 percent of the market capitalization of the Kuala Lumpur Stock Exchange, or more recently called Bursa Malaysia. Following the listing, Syarikat Telekom Malaysia is now more widely known as Telekom Malaysia Berhad.

4.5.3 The Selection of Case Study

Telekom Malaysia was selected in this research as a case study due to several reasons. The main rationale was mainly because Telekom Malaysia fits the description of the phenomenon described in Chapter 1, that is, a previously state-owned enterprise, a privatized state-owned enterprise, a company that is in the high technology company and finally, a privatized state-owned enterprise in a developing economy.

Telecommunications in Malaysia, via "Jabatan Telekom Malaysia" or Malaysia's Telecommunication Agency under the Malaysian Government was established in 1962. This was when the first microwave radio links were established. Governments everywhere considered telecommunications was (and to some extent still is) considered as an infrastructure that is critical to the growth of any country. Some governments even consider telecommunication and its' infrastructure an asset and security to the country. As Jabatan Telekom Malaysia grew to cover nationwide and global services, the Malaysian Government decided to privatize Jabatan Telekom Malaysia (as well as some other Government assets) in 1987. This gave birth to Syarikat Telekom Malaysia that was met with immediate challenges in areas, such as debt, management styles, Government like corporate culture even with strategic steps taken to transform Syarikat Telekom Malaysia. These challenges continued to the point where Syarikat Telekom Malaysia got listed in the Malaysian main stock exchange (in order to resolve the huge financial burden) thereby, changing its name to Telekom Malaysia Berhad (Lee, C. 2002).

Additionally, Telekom Malaysia Berhad has a hybrid ownership structure that has a heavy weightage of Government ownership. According to TMB's Official website, the table below shows the list of substantial shareholders.

No.	Name of Shareholders	No. of shares held		Deemed Interest	% Deemed Interest
		Direct Interest	%		
1.	Khazanah Nasional Berhad	984,825,713	26.21	-	-
2.	Employees Provident Fund Board	657,000,077	17.48	-	-
3.	AmanahRaya Trustees Berhad – Amanah Saham Bumiputera	445,035,200	11.84	-	-

Table 4: Breakdown of Telekom Malaysia Berhad Shareholdings

Source: Telekom Malaysia Berhad

At the time of this writing up, and as at 31st of August 2018, from TMB's website, the following Table 2 shows the composition of the board of directors and who they represent.

	Designation	Representing
1	Chairman	Government – Former Director of the Malaysian Economic Planning Unit
2	Executive Director 1 (acting CEO)	TMB
3	Executive Director 2	Government – Economic Planning Unit
4	Executive Director 3	Government – Khazanah Nasional (Malaysia's Investment Arm)
5	Executive Director 4	Government – Khazanah Nasional (Malaysia's Investment Arm)
6	Executive Director 5	Government – Employee's Providence Funds
7	Executive Director 6	Private
8	Executive Director 7	Government – Ministry of Finance
9	Executive Director 8	Private
10	Executive Director 9	TM

11	Executive Director 10	Government – Malaysian Industrial Development Finance
12	Executive Director 11	Private

Table 5: Representation of Telekom Malaysia Berhad’s Board of Directors
(source: TMB Website)

Based on Table 5, it can be clearly seen that there are twelve board of directors (BOD); seven represented the Malaysian Government, three represented the private sector, and two represented TMB. Hence, making the Government holds 58 percent of the BOD composition.

Among the several privatized state-owned enterprises, there were one potential organization that could have fit the bill, i.e. the Axiata Group of Companies. Axiata is only looking at the mobile industry, and this is done via CELCOM, a local cellular service provider, that used to be a subsidiary of Telekom Malaysia Berhad. Nevertheless, Telekom has a wider more pertinent elements that fits the high-tech criteria. Additionally, Telekom Malaysia went through privatization. Axiata Group of companies did not go through privatization. The Axiata Group was set up to oversee CELCOM and other telco related businesses.

Privatized State-owned Enterprise	Industry
Affin Holdings Berhad	Bank
Axiata Group Berhad	Mobile Telecoms
BIMB Holding Berhad	Bank
Bousted Holding Berhad	General Retailers
Chemical Company of Malaysia Berhad	Chemicals
CIMB Group Holdings Berhad	Bank
Malayan Banking Berhad	Bank
Malaysian Airlines Systems Berhad	Airline
Malaysia Airports Holding Berhad	Industrial Transportation
Malaysia Building Society	Financial Services
Malaysian Resources Corporation Berhad	Construction and Materials
Sime Darby Berhad	General Industries
Telekom Malaysia Berhad	Fixed Line & Telecoms
Tenaga Nasional Berhad	Electricity
TH Plantations Berhad	Food Producers
UEM Sunrise Berhad	Real Estate Investment and Services
UMW Holdings Berhad	Automobiles and Parts

Table 6: Privatised State-Owned Enterprise in Malaysia
Source: ideas.org.my

Additionally, Telekom Malaysia Berhad already had organizational innovation as well as some digital transformation initiatives. The change of Chief Executive Officer was one of the main elements found in organizational innovation. The other three elements were the changes in work culture, structure, process and policies. Telekom Malaysia Berhad had all these changed elements. Some of the digitization & digitalization initiatives were based on the organizations over-arching **convergence** strategy. The figure below depicts this.

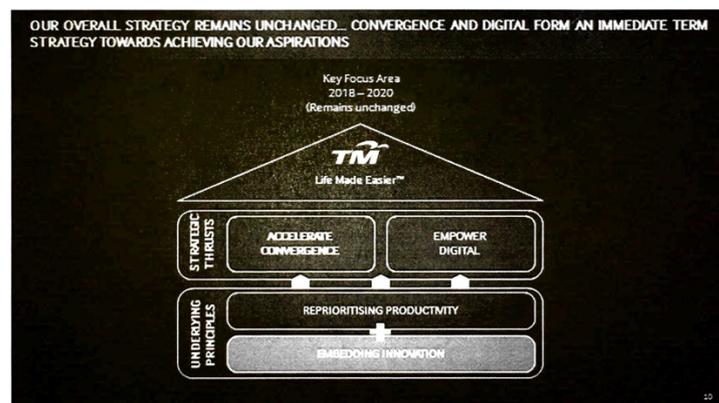


Figure 25

(source: Telekom Malaysia Berhad)

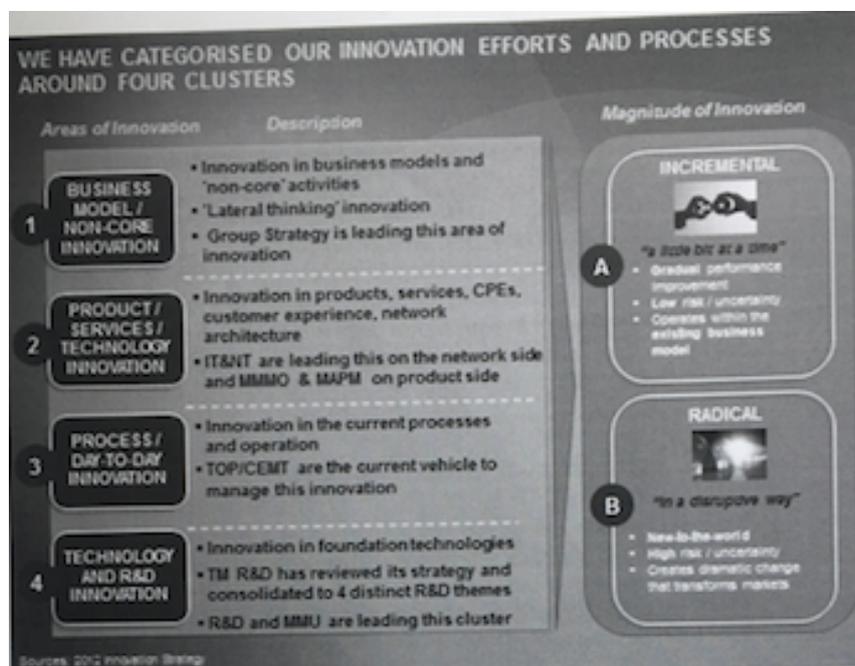


Figure 26

(source: Telekom Malaysia Berhad)

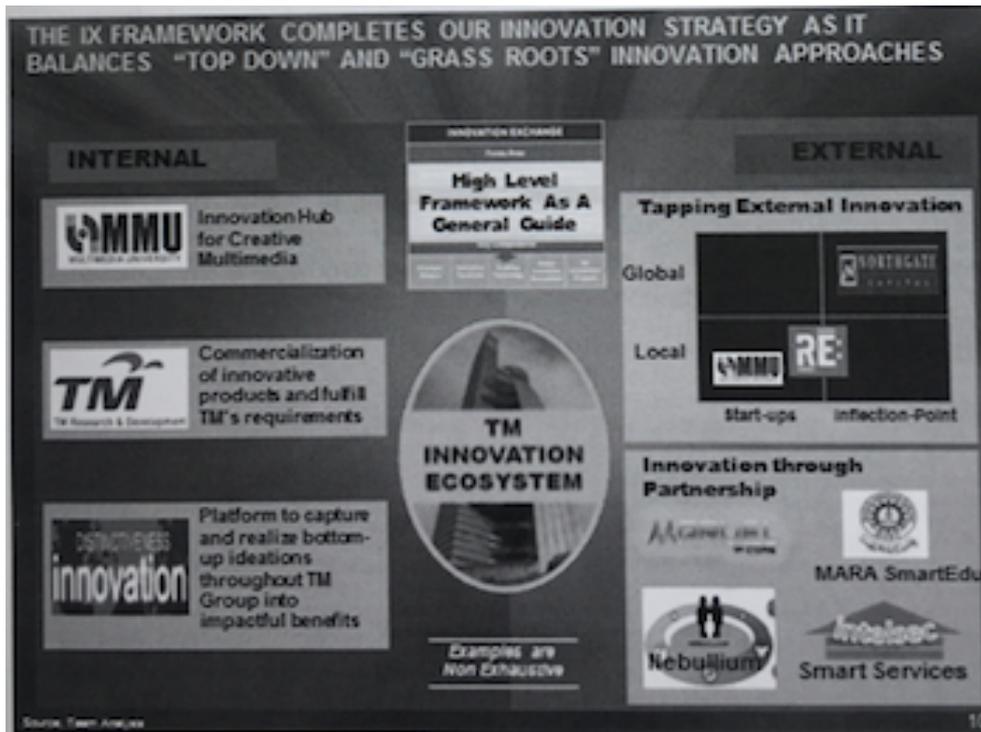


Figure 27

(source: Telekom Malaysia Berhad)

Some digitization & digitalization initiatives are as follows:

- The setup of a JEDI Council (loosely translated as the council for innovation)
- FLOW, a WhatsApp like app to do internal communications that allows faster decision making, problem solving and discussions that brings all levels of management and employees.

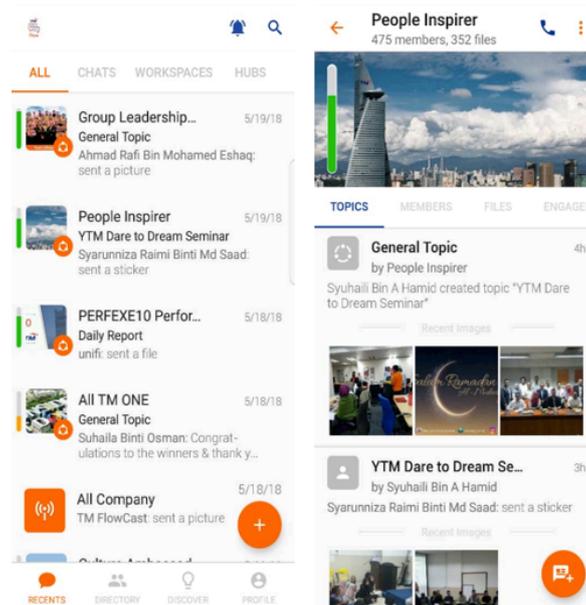


Figure 28

(source: Telekom Malaysia Berhad)

- Agile Development. A program that was meant to bring together members from different divisions/departments/units to connect and collaborate to generate ideas for problem solving problems and deriving new products/services.
- SMILE. Smile is a digital product developed under the Human Resource Division to capture an on the fly emotions, more specifically, happiness of employees in their daily routines and work.

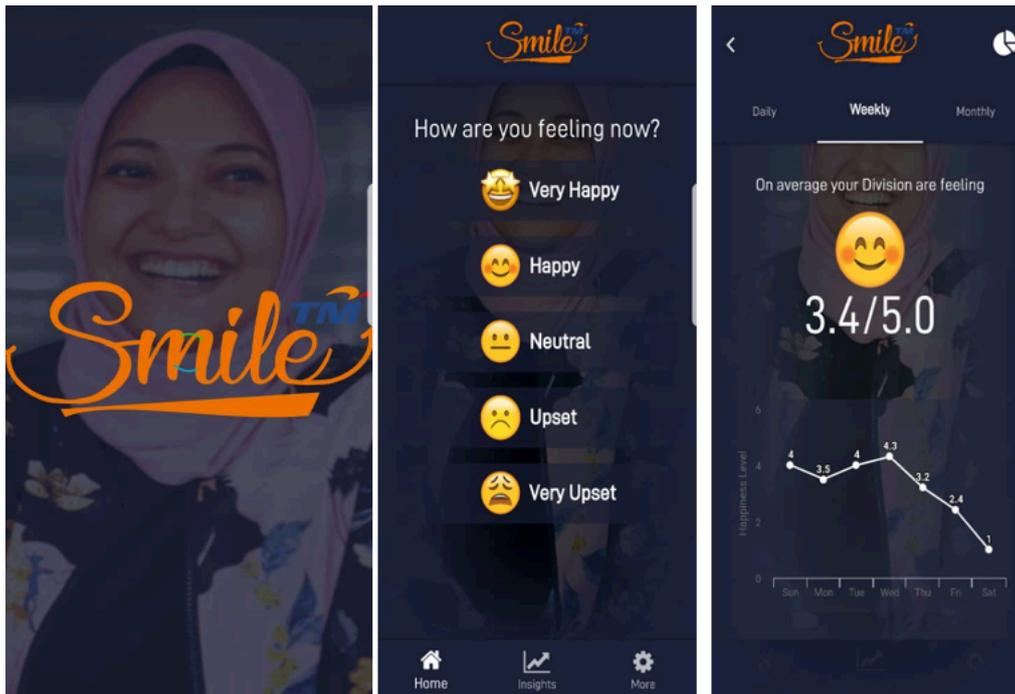


Figure 29

(source: Telekom Malaysia Berhad)

- GLOW. An app to give recognition to employees.
- GROW. An app that allow any employee to access contact details of all employees to invite/connect/collaborate.
- FLOW. A digital app that allows field engineers and all employees to take ownership of solving technical and trouble-shooting issues.

(note: no image capture was attainable)

It was found that the above initiatives were still in its infant stages. Telekom Malaysia Berhad measures the successes of the digital apps on several fronts, i.e. time to roll out, adoption rate, customer satisfaction (internal and external) and revenue. In terms

of time to roll out, it was informed that what normally take Telekom Malaysia Berhad three to six months to roll out, now only takes less than one month. In terms of adoption rate, it was informed that the general feeling is that it could be faster. Based on the customer satisfaction, respondents shared that their overall (external) customer satisfaction index has grown but the internal satisfaction index is still a work in progress via SMILE. The final means of measurements were unable to be attained as I was informed that it is still early in its digital strategies.

4.5.4 Data Collection

There are two ways that data can be obtained, namely, primary or secondary data (Ghauri et al., 1995). Primary data is normally referred to as data that is gained or obtained on his / her own, that is, by using interviews or questionnaires. A secondary data refers to data that can be gathered from existing materials, such as literature, annual reports, or audited accounts that were already accumulated by other researchers or organizations (Bryman & Bell, 2007).

In this study, both primary and secondary data were collected. The main or primary data was collected via two sessions of qualitative semi-structured interview with different levels of management. Different levels of management refer to management from the C-Suite (for example, the Chief Executive Officer), Senior Management (the senior management refers to Executive Vice Presidents and Vice Presidents) and middle management (i.e. General Manager, Senior Managers, and Managers). In order to gather data that would be beneficial to the study and allow the researcher to gain a more in-depth understanding of the situation, it was essential for the researcher to be in an environment that would allow the interviewees to be more at ease and comfortable. This environment would mean that the interview would have to take place in their office and their country. Bryman and Bell (2005) argue that this approach falls under interpretivism. This means that the participants are in their natural environment, which will allow for a better understanding of their ideas and views of organizational innovation in their capacity of leaders. As for the secondary data, information was collected from audited account, annual reports, and corporate websites.

The above selection strategy was done to ensure that data could be collected in the most efficient way to ensure that the research questions could be answered. There were two different sets of potential respondents. The first was those that is currently working in Telekom Malaysia Berhad and the second set of participants were those that used to work in Telekom Malaysia Berhad (preferably those that was in Telekom Malaysia Berhad just prior to the privatization process).

The rationale for the latter is to ensure a clearer opinion and thoughts regarding the need for privatization. This group of respondents would be able to give valid accounts of why the state-owned enterprise was to go through privatization. This would give a better means to compare the similarity between organizational innovation and privatization. The former group was to help explore the current changes that Telekom Malaysia Berhad is going through. Especially so with a new Chief Executive Officer coming into Telekom Malaysia Berhad which fits one aspect of organizational innovation is the change in leadership. To further increase the chance of obtaining critical thoughts and opinions on how changes (in leadership, process, policy, structure and work culture) has affected the organization, only managers were selected to be respondents. However, to ensure that I am able to obtain a more holistic / 360 degrees view of the exploration, I also included that managers of all levels, i.e. senior management, middle management and lower management. This is in line with what was argued by Klassen that a large organization is primarily driven top down (Klassen et al. 2020).

4.5.5 Sampling Strategies and Size

Sampling Strategies

In order to answer the research question of the potential relationship between organizational innovation and privatization, as well as between technological innovation and digitization and digitalization, the selection of participants was narrowed down to focus only on two sets of participants, namely, (i) current senior management or c-suites, and (ii) past or previous senior management and c-suites of the case study. Additionally, to answer the remaining of the research questions, the selection of participants was focussed on all level of management, namely, (i) current senior management or c-suites, top management, middle management, and lower

management. These strategies brought down the number of potential participants considerably as the case study selected (Telekom Malaysia Berhad) has more than twenty-five thousand employees. Furthermore, as the data to be collected was very specific to the knowledge of privatization that took place more than fifty years and data related to organization performance, a purposive sampling with snowball effect was used. The total number of targeted participants was twenty-five.

The main objective of understanding the different approaches to obtaining sampling is to ensure that the samples obtained could be used in the attempt for generalization. (Burns, 2000). By definition, a sample is a part of a population, while population is defined as the total number of people or individuals within a specific case (Saunders & Lewis, 2012). There are essentially two different ways to obtain samples: (i) The Probability Sampling (also known as the Representative Sampling), and (ii) The Non-Probability Sampling (also known as the Judgmental Sampling).

Under the probability sampling, according to Saunders and Lewis (2012), there are five different types of probability sampling, which are (i) Simple Sampling, (ii) Systematic Sampling, (iii) Stratified Sampling, (iv) Cluster Sampling, and (v) Multistage Sampling. Simple sampling or random sampling takes on obtaining sample randomly by assigning numbers. Another way to obtain samples under the simple sampling approach is by using a computer-generated number. Systematic sampling refers to obtaining samples by selecting samples at regular times from the sampling frame. The stratified sampling is basically a modified version of the random sampling where the population is divided into two or more according to their strata or status and then selecting the samples is similar to random or simple sampling. The cluster-based sampling is similar to the stratified sampling approach where the population is broken up into its discrete groupings or clusters (for example by geographical location) (Bryman & Bell, 2015). Finally, the multistage sampling is essentially a solution to manage a dispersed population where a face to face interview session is required. This approach requires taking a few cluster samples where each sampling is done randomly.

Alternatively, the non-probability sampling approach refers to the probability of each case selected is not known (Saunders & Lewis, 2012). There are five ways to obtain

a non-probability sampling: (i) Convenience Sampling, (ii) Quota Sampling, (iii) Snowball Sampling, (iv) Purposive Sampling, and (v) Self-Sampling (Bryman & Bell, 2015). Convenience sampling is the easiest way to obtain samples as it just takes on whoever the researcher can convince easily to join the research. Quota sampling is non-random and usually uses interview surveys. The snowball sampling is normally used when it is hard to obtain members to join the research where once a specific member is selected, the member then encourages others to join in. Purposive sampling uses the researcher's judgement to select cases that will help answer a research question. The self-sampling approach takes place when individuals opt in to be in the research after obtaining pertinent information about the research from marketing materials, such as posters, flyers or websites. The samples that were selected for this study were based on a non-probability method. This means that the sample was not obtained by random or chance. Following the adoption of the non-probability approach, for the specific purpose of this report, the author has chosen the **purposive based sampling approach**. The rationale for this selection is elaborated below.

Purposive sampling is a rather elementary approach to identifying participants in obtaining data. Fundamentally, purposive sampling uses predefined strategies based on the research question. However, the number of participants that is to be selected is at the discretion of the researcher (Statistics, 2012). Justification in adopting purposive sampling is echoed by Welman et al. (2005). Similar to other approaches, purposive sampling has its pros and cons. The table below illustrates the advantages and disadvantages of purposive sampling. Purposive sampling allows some form of agility in the generalization opportunity in identifying and shaping other qualitative research in another phenomenon. Petty, Thomson, and Stew (2012) call it transferability.

Sampling Method	Pro	Con
Purposive Sampling	Wide range of sampling techniques (including homogeneous sampling)	Highly prone to researcher bias
	Generalisations can be made from the sample that has been studied	Judgement used to select the units of study
	Only suitable candidates remain in the sample to be studied	
	Accurate results	

Table 7: Pros and Cons of Purposive Sampling
(Statistics, 2012)

For this research, the participants were selected from the population of all levels of management in Telekom Malaysia Berhad. This is mainly due to the nature of this research where it is exploring the phenomenon of the potential relationship between privatization and organizational innovation, as well as technological innovation and digitization and digitalization, and its impact on organizational performance. Another additional aspect of this research requires different views of management level type of participants. Telekom Malaysia Berhad is such a large organization with 28,000 employees, but with only three hundred identified as the management team (even though the three hundred included all levels of management), it became very critical to ensure that as many people within the three hundred were recruited for the interview sessions. The main rationale for this is to ensure that different perspective and opinions would be obtained, which will allow for a better understanding of the phenomenon being explored. In adopting the purposive sampling approach to identifying participants, the process required a procedure where the sample share similar traits and or characteristics (Statistics, 2012). These similar traits and or characteristics refer to those that have, initially a direct and secondly, indirect involvement in organizational innovation, invoking change and or executing change.

The number of people needed to be in was determined in two ways. The first was based on the systematic literature review conducted on organizational innovation. It was found that the number of participants determined was an average of ten

participants. This was validated by several journals that adopted a single case study (King et al. 1991, Blakcori 2014). This was further validated when studies covering more than one case study only identified an average of five respondents. But to ensure a better chance of obtaining data to answer the research questions, the number of targeted people identified was doubled. This is also taking into consideration the “over-promise versus under-deliver” strategy to ensure the final number of participants would meet the average ten that other studies had obtained.

Interviews

It was decided that the best way to collect primary data is via a qualitative interview because it is generally less structured (Bryman & Bell, 2007). Due to being less structured, it is also argued that a qualitative interview is more flexible where the interviewer can use his/her creativity, but most importantly, his or her personal experience, to obtain as much as he or she can, the interviewee’s point of view, opinions, and ideas. Such rich answers from the respondents are critical to a qualitative interview method of collecting data. What is more important is that a qualitative interview approach allows the flexibility in asking potentially new questions that were not initially laid out that will be of benefit to the study (Bryman & Bell, 2007).

There are two approaches in the qualitative interview—unstructured and semi-structured. An unstructured interview takes place when the researcher begins the session with a simple question; followed up by enthusiastically listening to the interviewee who will share freely. On the other hand, a semi-structured interview follows a checklist of questions addressing the research questions but allows a considerable amount of freedom to ask additional questions that will further enhance or enrich the data collected (Darmer, 1995; Bryman & Bell, 2007). As mentioned earlier, a semi-structured interview mode was selected as the preferred approach in collecting data for this study. The rationale behind this selection is that, while it will bring a tremendous amount of value to the data collected when the interviewer is given the liberty to ask freely based on the answers given by the respondents, a semi-structured interview also allows some form of control that the interview session does not go astray. Another rationale for opting a semi-structured interview approach is that it will give the interviewee a sense of ownership that his or her thoughts and ideas are

important to the research. This is extremely critical as in executing organizational innovation many changes will take place and will impact many aspects. By obtaining and allowing such flexibility, it encourages ownership, empowerment, and the ability to voice personal concerns. This fits what Darmer (1995) argues, that a semi-structured interview is neither a free conversation nor a highly controlled question. Thus, giving some form of structure though not rigid.

One of the main problems faced in collecting data via an interview is possibly or potentially misunderstanding and or misinterpreting word or terms used by the interviewee. However, in this research, the interviewer and interviewee are of the same country (i.e. Malaysia) and in general, speak the same language. Especially so when the interview session is being conducted in English and English is not the main language used. Nonetheless, to ensure the dependability and consistency of the answers, all interview sessions have been recorded and transcribed.

There were two sets of semi-structured interview questions developed based on the systematic literature review on organizational innovation and the reviews on privatization (Bunduchi 2017, Ollila, Yström 2017, Beverland et al. 2016, Beverland et al. 2010). The first set of questions were as follows:

Demographics

1. What specifically is your role in Telekom Malaysia Berhad?
2. What are your past experiences?
3. How deeply involved are you in Telekom Malaysia's organizational innovation initiatives?

Innovation Strategies

1. How important is organizational innovation within Telekom Malaysia, and where has organizational innovation been most effective in the continued transformation of Telekom Malaysia?
2. How impactful has organizational innovation been to Telekom Malaysia and where have you seen the most effective positive change?

3. What programs are in place to execute organizational innovation in Telekom Malaysia?
4. How has organization innovation affected the decision to bring Telekom Malaysia into the global market?

Innovation Execution

- i. What is challenging about your role, and how do you tackle such challenges in executing organization innovation?
- ii. How is your role supporting or hindering you in executing organization innovation?

Innovation Performance

1. How do you think innovation strategies within Telekom Malaysia is performing?
2. How is organization innovation measured in Telekom Malaysia?
3. How successful has Telekom Malaysia's global strategies?

The second set of (more of a complimentary) questions was developed, based on both the review on organizational innovation and privatization. The second set of semi-structured interview questions was developed as a supplementary set of questions as it was found that the initial set was unable to answer the first two research questions. There was a critical to re-strategize on the second set of interview questions to allow for a more specific focus on the potential relationship between pi and privatization. The second set of questions were:

1. Prior to the privatization of Jabatan Telekom Malaysia, why do you think that the owners at the time, i.e. the Government, wanted to make radical changes within the organization?
2. Why was it critical to relook at the change of ownership structure of Jabatan Telekom Malaysia?
3. Why do you think that the Government wanted to change the ownership structure of Jabatan Telekom Malaysia and why was it so critical to ensure that changes take place in leadership, organizational structure, work culture, process, and policies?

4. What do you think were the key determining factors that lead to the Government to privatizing Jabatan Telekom Malaysia?
5. Why do you think these factors were critical to the success of the transformation?
6. Other than the change of ownership, what, in your opinion, were potentially other key criteria's that lead to the privatization of Jabatan Telekom Malaysia?

4.6 Reliability and Validity

The concepts of reliability and validity are two very important concepts when opting for more qualitative-based research. Both concepts can be argued as two different means or measurements measuring the dependability or the trustworthiness and more so, the reliability or credibility of the research. Internal reliability is when there is more than one researcher in the group that will allow comparison of observations and ideas. External reliability refers to what level a study can be done again that can be compared to the original study done. It is suggested that it might be a challenge to meet a high level of reliability as change is, not in the context of organizational innovation or privatization, but change, in general, will occur. And such change essentially will not allow high level of reliability (Bryman & Bell, 2007).

Therefore, in the attempt to ensure that the highest level of reliability can be achieved, the process of gathering data and how the interview was performed is described. The interview questions used can be found in the appendix. Thus, allowing potentially other researchers to reproduce this research under similar situations and make some comparison from the results.

Internal validity discusses to what extent the researchers can come to some form of agreement to allow or bring them to the same conclusion. This refers to the ability of the researchers to have similar or come to agreed observations and thoughts regarding the research conducted. Meantime, external validity refers to the potential findings of research to be relevant in different scenarios (Bryman & Bell, 2007).

The design of the two sets of questions was derived based on previous papers and known theories such as the resource base view and the principle-agent theory.

Additionally, from the systematic literature review conducted on organizational innovation, elements from the review was incorporated into the questions. From the analysis, the following were found.

		Semi-Structured Interview Questions?
9 scales of measurements	leadership	<input checked="" type="checkbox"/>
	support	<input checked="" type="checkbox"/>
	tasks	<input checked="" type="checkbox"/>
	behaviour	<input checked="" type="checkbox"/>
	integration	<input checked="" type="checkbox"/>
	project raising	<input checked="" type="checkbox"/>
	project doing	<input checked="" type="checkbox"/>
	knowledge and skills	<input checked="" type="checkbox"/>
	information and communication	<input checked="" type="checkbox"/>
	Technological benefits	<input checked="" type="checkbox"/>
	Technological efficiency	<input checked="" type="checkbox"/>
	Technological magnetism	<input checked="" type="checkbox"/>
	Technological specificity	<input checked="" type="checkbox"/>
	Infrastructure clarity	<input checked="" type="checkbox"/>
Strategic orientations	Direct Indirect Total and specific perspective	<input checked="" type="checkbox"/>
Product innovation relationship Type	Breakthrough Incremental	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
	Development cost	<input checked="" type="checkbox"/>
	Development period	<input checked="" type="checkbox"/>
	Development speed	<input checked="" type="checkbox"/>
	Overall product success	<input checked="" type="checkbox"/>

Tool	Open2-Innovation	Measures performance rating	<input checked="" type="checkbox"/>
	Diffusion Activity	Outside in activity	<input type="checkbox"/>
		Inside out activity	<input type="checkbox"/>
	Innovation performance	Coupled activity	<input type="checkbox"/>
		New product or services innovation	<input checked="" type="checkbox"/>
		New product or service success	<input checked="" type="checkbox"/>
		Customer performance	<input checked="" type="checkbox"/>
		Financial performance	<input checked="" type="checkbox"/>
		Number of inventions generated	<input checked="" type="checkbox"/>
		Impact on technical domain career success	<input checked="" type="checkbox"/>
	Technology visioning		<input checked="" type="checkbox"/>
	Idea encouragement		<input checked="" type="checkbox"/>
	Diversity encouragement		<input checked="" type="checkbox"/>
	Convergent thinking		<input checked="" type="checkbox"/>
Ideas --> Execution			
Innovation work behaviour	Patent submission	<input checked="" type="checkbox"/>	
	Idea submission	<input checked="" type="checkbox"/>	
Industrial capabilities	Creativity	<input checked="" type="checkbox"/>	
	Skills		
	Job Expertise		
	Operational Skills	<input checked="" type="checkbox"/>	
	Motivation	<input checked="" type="checkbox"/>	
	Contextual Knowledge	<input checked="" type="checkbox"/>	

Environmental	Job Control Support for innovation	<input checked="" type="checkbox"/>
Number of external ideas		
Brand perception		<input checked="" type="checkbox"/>
Perception of innovativeness		

4.7 Ethical Considerations

“Ethics refers to the appropriateness of your behaviour in relation to the rights of those who become the subject of your work or are affected by it” (Saunders & Lewis, 2012). Cooper, Schindler, and Sun (2006) define ethics as the “norms or standards of behaviour that guide moral choices about our behaviour and our relationships with others”. “Research ethics, therefore, relates to questions about how we formulate and clarify our research topic, design our research and gain access, collect data, process and store our data, analyze data and write up our research findings in a moral and responsible way” (Saunders & Lewis, 2012).

According to Collis and Hussey (2013), there are three considerations:

- Participant must not be harmed in any shape or form
- Participants can enter into research voluntarily and can leave at any time
- Participants have the right to privacy, confidentiality and anonymity

Saunders et al. (2012) also include the following considerations:

- Participants are protected from any form of embarrassment, stress, discomfort, pain or harm.
- Participants are protected from any effects of the research, for example, how specific data is analyzed when it concerns the participants
- Participants are protected from any possible trickery in the research

On the other hand, research ethics is also to protect the institution the researchers are from as well as the institution itself. In short, it is three-way protection where it would cover all stakeholders in the research. For this research, the researcher needs to be aware of the possible harm that could come from the participants of the proposed experiments. There should not be any direct or indirect implications for the participants; for instance, implications such as job security, backlash from managers

and backlash from peers. For this research, the participants are protected by being anonymous. The main reason for this is due to the sensitivity of the potential answers given. The sensitivity here refers more towards the middle and lower management where their answers may or may not coincide with their immediate reports nor the direction of the company. It is critical to obtain their thoughts and ideas as it will indicate potential execution or even policy issues in the execution of organizational innovation in Telekom Malaysia Berhad.

4.8 Summary of the Fundamentals

With the above, the empirical work that was conducted for this research is based on a qualitative approach. Data will be collected via a case study research, utilizing semi-structured interviews and getting secondary data from previous studies, experience, observations, company reports, and company websites.

Different research philosophies were described, and it was found that an interpretivist philosophical approach suite the research question better. This approach assumes that people will come up with their own understanding as they interact with the world around them. Therefore, researchers taking this approach aims to understand the phenomena by assessing the intended meaning that people give to the understanding.

Following which, the chapter describes the different research approaches and have selected a quantitative approach. Once the researcher has gained a better understanding of the problem and obtained the possible answers to the problem, a more informed theory could be developed. Thus, an inductive approach is also preferable (Collis & Hussey, 2013). Next, the chapter touched on the different research strategies and have opted for a qualitative approach, namely, the case study. To round up the philosophical approach and fundamentals in adopting and designing a strategy, ethical issues in the process of collecting data were addressed, especially in conducting an experiment.

4.9 What Took Place

Upon taking the above route and decision, Telekom Malaysia Berhad was approached via the Education Foundation of Telekom Malaysia Berhad. This Foundation is known as Yayasan Telekom Malaysia or Telekom Malaysia Foundation. As a quick

background, Yayasan Telekom Malaysia was founded to solely fund potential students to further their study to degree and post-degree level (including Masters and PhD). In a nutshell, it is for Telekom Malaysia to identify and nurture future leadership for Telekom Malaysia Berhad. The main reason for approaching Yayasan Telekom Malaysia is because Yayasan Telekom Malaysia has also funded this research and has voiced support in obtaining data or making contact to allow the interview to take place. A total allocation of six weeks was set aside to fly back to Malaysia for this data-gathering exercise. All possible preliminary requirements, such as official letter requesting support, sample semi-structured interview sheet, proposal with what value will this research bring to Telekom Malaysia, and potential candidate for participants (which included the board of directors and senior leadership) was all completed prior to the trip to Malaysia.

However, perhaps the timing was not favourable as two weeks into the trip back, Telekom Malaysia senior management went into preparing for a board of directors' meetings. It is rather typical for an organization such as Telekom Malaysia Berhad to essentially have the entire senior management and middle management to focus all efforts for a meeting. Five weeks into the trip back, after bi-daily reminders sent to Yayasan Telekom Malaysia, an email was received suggesting for direct communication sent to the desired personnel to invite them to participate in this study. With a week left, an immediate email was sent to specific personnel consisting of c-suite, senior management, middle management and managers. In addition to the original specific lists, the researcher also reached out to past colleagues and friends who used to work with Telekom Malaysia Berhad and held middle management and manager roles. And adopting the snowballing effect, those who agreed to be interviewed, also recommended names of colleagues to be approached.

Fortunately, five participants responded positively and were able to slot in time in their schedule to meet up for thirty minutes. From the five, one opted to conduct the interview via the telephone citing privacy as the main reason. This individual also opted not to have the session recorded. The balance of the four participants was open for face to face and recorded interview session.

Many remaining potential participants also responded positively; however, they were only available after the allocated time in Malaysia. Fortunately, the candidates agreed to conduct the session via technology-based platforms, such as Skype, Facetime, and WhatsApp video call. The target was to interview twenty-five participants. The main rationale for twenty was based on a study by (Ghauri et al. 2014) where 25 interviews were conducted from eight different organizations. It was then decided that to target the same number from a single case study would be sufficient. Furthermore, the targeted number of potential candidates for a large organization such as Telekom Malaysia Berhad to allow for an adequate representation of the population is also not rationale as the topic of this research would only privy to the c-suites, some senior management and a very small number of the middle management and managers in Telekom Malaysia Berhad. The reason behind this decision despite a large number of employees is that Telekom Malaysia Berhad's structure suggests that specific knowledge on the data to be gathered are very specific to the individual's scope of work. Thus, the selection of potential candidates was made by utilizing a purposive approach with a snow-balling effect.

Twenty interviews were conducted. Out of the twenty, key identified personnel were unable to meet up or had declined to meet up. These key personnel identified were the Chief Executive Officer, Deputy Chief Executive Officer, Chief Digital Officer and finally the Chief Executive Officer of the fully owned subsidiary of Telekom Malaysia Berhad that focussed only on research and development. Except for the CEO for the R&D subsidiary, the potential reason that could have arisen from their decline could be due to the individual being recently assuming the respective C-Suite roles. Out of the twenty, five participants were from Telekom Malaysia Berhad's International office located in London, United Kingdom. These five candidates agreed to face to face and recorded interview session.

Irrespective of the mode of interview, be it face to face, telephone or via communication platforms such as SKYPE, the interview started with the description of this research, its aims and objectives. Prior to the actual data gathering interview, the candidates were briefed, and they agreed to the participant's information sheet and understood their rights to terminate the interview without their contribution being

included in the analysis and also to record the session for ease of transcription at a later time.

Fortunately, those who agreed to be interviewed were very candid and open with their thoughts and opinions. This gave way to a very deep discussion that in some instances, took more than 30 minutes to conduct. Some went above and beyond to share what could have been done better or suggestions on how execution can be better.

All collected audio recording was transcribed and analysed. Each transcription took an average of thirty to forty minutes to do for interview sessions that stuck to the thirty minutes target. Interviews that exceeded thirty minutes took an average of fifty to seventy-five minutes to transcribe. Each transcribe was done individually without using any table format. The main reason for this is that, as already mentioned, some of the participants did not have any privy information regarding the involvement of the board of directors and the internationalization of Telekom Malaysian Berhad. Additionally, the nature of a semi-structured interview that allows some flexibility for the participants to share more than what is required has given more insights into this research.

Upon reviewing the data obtained, it was imperative to run a second or supplementary interview session as there were still gaps in the data obtained, specifically pertaining to privatization and organizational innovation. As already eluded, to obtain such information was a mammoth task as the privatization exercise of Telekom Malaysia took place more than thirty years ago. A more drastic but innovative approach was called for. To obtain participants who would be able to answer specific questions on privatization and organizational innovation, the second set of semi-structured interview questions¹⁵ was developed and approved by the supervisory team. Relying on personal networks and contacts, an additional of eight participants were recruited by adopting the purposive and snowball sampling approach. The general description of the participants is as follows:

- Two existing senior management/c-suites

¹⁵ The second set questionnaires or the supplementary questions can be found in the appendix.

- Two ex-CEO (with one of the past CEO had four years tenure as the Head of Economic Planning)
- One staff that oversees Telekom Malaysia Berhad's current development of Telekom Museum
- Two ex-staff that held senior management/c-suite level during the transition or privatization roll out
- One past Prime Minister that laid out the policy for the Malaysian privatization initiatives

CHAPTER 5: FINDINGS and DISCUSSIONS

“It is an old maxim of mine that when you have excluded the impossible, whatever remains, however improbable, must be the truth” – Sherlock Holmes

5.1 Introduction

As a recap, the aim of this study is to better understand what organizational innovation is; to explore what, if any, is the relationship between organizational innovation and privatization and secondly, what, if any, is the relationship between technological innovation and digitization and digitalization. Finally, how these relationships impact organizational performance.

The first aim was answered by adopting a systematic literature review. And it is iterated in this chapter as part of a reflection of organizational innovation and supported by the supplementary data collected. The second and final aim was answered by conducting an interview, and the results are presented in this chapter.

This chapter is structured in two continuing segments; data obtained from secondary, and the primary data, from the semi-structured interview sessions.

5.2 General Findings

Demographics

4. What specifically is your role in Telekom Malaysia Berhad?
5. What are your past experiences?
6. How deeply involved are you in Telekom Malaysia’s organizational innovation initiatives?

Innovation Strategies

5. How important is organizational innovation within Telekom Malaysia, and where has organizational innovation been most effective in the continued transformation of Telekom Malaysia?
6. How impactful has organizational innovation of Telekom Malaysia been, and where have you seen the most affective positive change?

7. What programs are in place to execute organizational innovation in Telekom Malaysia?
8. How has organization innovation affected the decision to bring Telekom Malaysia into the global market?

Innovation Execution

- iii. What is challenging about your role, and how do you tackle such challenges in executing organization innovation?
- iv. How is your role supporting or hindering you in executing organization innovation?

Innovation Performance

4. How do you think innovation strategies within Telekom Malaysia is performing?
5. How is organization innovation measured in Telekom Malaysia? How successful were Telekom Malaysia's global strategies?

The above semi-structured questions were collected from twenty management-level personnel. The answers transcribed is too long to be placed in this section of the document and can be found in the appendix. Nevertheless, excerpts of the answers will be extracted and shown here.

Basic Findings on Demographics of Respondents

First and foremost, the case study selected based on the primary research question, that is, what is the relationship between organizational innovation and privatization? Is privatization an act or a form of organizational innovation? To answer these questions, the researcher had to look for individuals that had specific knowledge on the transition that took place in the 1980s. However, to answer the second set of research questions, the researcher needed to look at the present and how Telekom Malaysia Berhad has grown and continue to leverage organizational innovation in order to ensure its relevance, but more so, to ensure relentless growth and growing market share.

Secondly, based on the demographics, the basic description of the participants are as follows. A total of twenty-seven interviews were conducted amongst personnel from different managerial levels, such as C-Suites, (Executive) Vice Presidents, General Managers, and Managers. The breakdown of the twenty respondents is as follows. The breakdown is based on designation, gender, age, gender vs designation, age vs gender and age vs gender vs designation.

Breakdown by Designation

Manager	10
General Manager	3
Senior Management	14
total	27

Breakdown by gender

F	5
M	22
total	27

Breakdown by age

30 - 40	13
41 – 50	7
Above 50	7
total	27

Breakdown by age vs designation

	<u>30 - 40</u>	<u>41 - 50</u>	<u>50+</u>
Manager	10	0	0
General Manager	2	1	0
Senior Management	1	5	8
	13	6	8
total	27		

Breakdown by age and gender

	<u>30 - 40</u>	<u>41 - 50</u>	<u>50+</u>
M	9	5	8
F	4	1	0
	13	6	8
total	27		

Breakdown by age group vs gender vs designation

	<u>30 - 40</u>	<u>41 - 50</u>	<u>50+</u>
Managers / M	7	0	0
Managers / F	3	0	0
General Manager / M	2	0	0
General Manager / F	0	1	0
Senior Management / M	0	5	8
Senior Management / F	1	0	0
	13	6	8
total	27		

This provided a good mix of opinions and thoughts on organizational innovation in Telekom Malaysia Berhad and how the organization addressed the changes needed to be made to meet the direction set by the Board of Directors.

Telekom Malaysia Berhad Today

As a means to the amount of transition Telekom Malaysia Berhad had to go through since its privatization, organization performance, such as total revenue achieved, the number of research and development conducted with the number of intellectual properties obtained and Telekom Malaysia Berhad's global expansion becomes the natural indicator of Telekom Malaysia Berhad's performance.

Today, Telekom Malaysia Berhad has grown in leaps and bounds. Secondary data obtained from audited accounts indicated the continued growth of Telekom Malaysia

Berhad. According to the TMB's most recent annual report, that is for the year 2017, total profit for the financial year 2013 till 2017 shows a dip in 2014 and 2015, but sees a slight increase in 2017. Table 5 below illustrates the operating results for TMB from 2013 – 2017.

In RM Million	2013	2014	2015	2016	2017
OPERATING RESULTS					
1. Operating revenue	10,628.7	11,235.1	11,721.6	12,060.9	12,085.1
2. Profit before taxation and zakat	1,046.0	1,105.5	911.8	918.5	1,048.0
3. Profit for the financial year	1,047.8	842.5	591.8	613.4	730.5
4. Profit attributable to equity holders of the Company	1,012.2	831.8	700.3	776.0	929.7

Table 8: Telekom Malaysia Berhad Operating Results
(Telekom Malaysia Annual Report 2017)

Even though a comparison between the year 2017 and its initial few years of privatization, it can be assumed the total operating revenue of Telekom Malaysia Berhad has grown. But more importantly and pertaining to this study, is how Telekom Malaysia Berhad continue to transform itself. In the fourth quarter of 2018, the Telekom Malaysia Berhad Board of Directors welcomed a new Chief Executive Officer to help bring Telekom Malaysia Berhad to the Digital Economy. The new Chief Executive Officer's main role is to hasten Telekom Malaysia Berhad to move into the digital era further enhancing Telekom Malaysia Berhad's positioning to be the main player in the telecommunication industry. Following through from his predecessor, the new Chief Executive Officer immediately initiated several core initiatives to meet the Board of Director's direction to **increase efficiency, reduce cost, and increase profits**. The over-arching strategy was to position Telekom Malaysia Berhad as the first in adopting the **convergence and empower digital technologies** strategic positioning. With the convergence strategy, Telekom Malaysia Berhad was poised to be the main provider for broadband, media content, mobile content, connectivity (such as internet-based voice and messaging services), business backbone and solutions services.

Based on Telekom Malaysia Berhad's annual report in 2018, achievements were as follows; Broadband customer based is more than 2.23 million users, an increase of 1.3 million user-based from the previous year. It is quoted from Telekom Malaysia

Berhad’s annual report in 2018, “*Convergence Penetration with customers having 3 services and above was at 53% as at the end of 2018 compared to 42% at the end of 2017. Translated into financial performance, despite lower Average Revenue per User (ARPU), which was reflective of the Group’s alignment to the national broadband improvement plan, revenue from Internet and multimedia services continued its year-on-year growth trend with a 3.7% (RM145.9 million) increase, which led to RM4,119.9 million total revenue for 2018 compared to RM3,974.0 million in 2017. The increase in number of buys of unifi TV contents is another contributing factor to the growth. In terms of product mix, Internet and multimedia continue to be the most significant contributor to the Group’s revenue, contributing 34.9% of the Group’s total revenue compared to 32.9% in the previous financial year*”.

Another evidence of Telekom Malaysia Berhad’s growth could be seen from its composition of employees. Today, Telekom Malaysia Berhad has 26,407 employees. A break-down by age group is shown in the table below.

Breakdown of Total Employees by Age

< 30	3,649.00	13.82%
30 - 40	11,725.00	44.40%
40 - 50	5,623.00	21.30%
> 50	5,410.00	20.48%
total	26,407.00	100%

The majority of the employees lies in the age group of 30 – 40, where the majority of that number are mainly the technician and those who have no higher education certificates. Among the 26,407; the table below shows the breakdown in terms of the level of education achieved.

Year in Service	Masters	Ph. D	Grand Total
0	11	1	12
1	44	12	56
2	37	4	41
3	49	7	56
4	46	4	50
5	57	5	62
6	55	7	62
7	63	5	68
8	88	12	100
9	101	12	113
10	81	10	91
11	66	13	79
12	74	17	91
13	63	17	80
14	97	16	113
15	61	20	81
16	102	32	134
17	82	20	102
18	60	16	76
19	51	23	74
20	83	23	106
21	130	14	144
22	42	-	42
23	30	1	31
24	42	4	46
25	53	-	53
26	45	2	47
27	51	3	54

28	28	-	28
29	12	1	13
36	14	2	16
37	8	-	8
38	1	-	1
30	8	-	8
31	12	-	12
32	2	-	2
33	13	-	13
34	4	-	4
35	18	-	18
39	2	-	2
40	1	-	1
Grand Total	1,887	303	2,190

Table 9: Breakdown of Telekom Malaysia Berhad's Post Graduate Employees
(source: Telekom Malaysia Berhad)

In terms of research and development, Telekom Malaysia Berhad had set up a fully owned subsidiary to focus solely on research and development. This organization is known as TM R&D. Under TM R&D, there are 292 employees and the breakdown based on education background is as per diagram below. Additionally, TM R&D has over the years, amassed several patents, industrial designs, and copyrights.



Figure 30: Breakdown of Telekom Malaysia R&D Post Graduate Employees
(source: Telekom R&D)

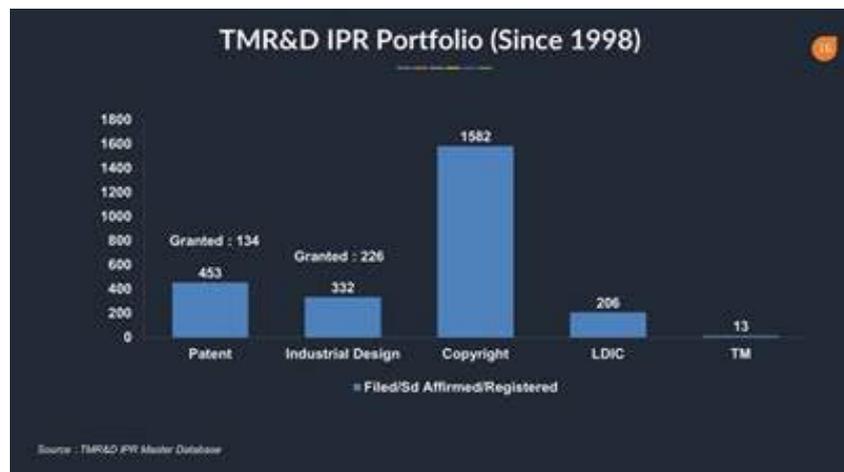


Figure 31: Breakdown of Telekom Malaysia R&D Intellectual Property Rights
(source: Telekom R&D)

Next, in terms of expansion, according to Telekom Malaysia Berhad's website, and under their TM Global initiatives, Telekom Malaysia Berhad has the following established global offices; Australia, Dubai, Hong Kong, Singapore, the United Kingdom, and the United States. The product and services provided in the international market are mainly traditional, as mentioned earlier, namely, data services, backhaul services, voice services, access services, and infra services. More recently, in 2017, a new product, beyond connectivity, was included.

Telekom Malaysia Berhad – Digital Strategy

From the data obtained, it does appear that Telekom Malaysia Berhad has made a tremendous amount of change since its first inception, privatized, and listed into the market exchange. Most notably, which has direct relevance to this paper, took place in 2015 and 2017. In 2015, Telekom Malaysia Berhad made a major corporate decision to shift and realigned their existing products and services to allow a more unified and converged based services. Telekom Malaysia Berhad senior management team called this realignment, the “**convergence strategy**”. One of the key reasons for this is to rectify Telekom Malaysia Berhad’s year by year loss of seven percent on land-based voice services (Telekom Malaysia Berhad 2017). Simultaneously to strategically usher Telekom Malaysia Berhad into the fourth industrial revolution and the digital economy.

One respondent described the importance of this shift more succinctly based on a study conducted by Telekom Malaysia Berhad. This study shows a mapping of where are the major telco’s in the world in a matrix that consisted of a comparison looking at four-quadrant, (i) pure connectivity (connectivity as a main service), (ii) digital extension (as a value add to connectivity and an enabler to the digital ecosystem), (iii) digital leadership (an emerging service and digital as a new service), and (iv) digital champion (digital business and connectivity as enabler). The respondent quoted that, “Telekom Malaysia Berhad’s current focus in moving from traditional telco to digital as a standalone second core”. This would bring Telekom Malaysia Berhad from quadrant one to quadrant three where Telekom Malaysia Berhad would focus on bringing **a new service with digital being the centre or core for products and services**. This can be argued as an important transition for Telekom Malaysia Berhad where technological innovation was leveraged for Telekom Malaysia Berhad to be more competitive in the (at the time) current telecommunication industry. It was also a strategic transition for Telekom Malaysia Berhad to transform itself from a telecommunication service provider to a more of a high technology provider.

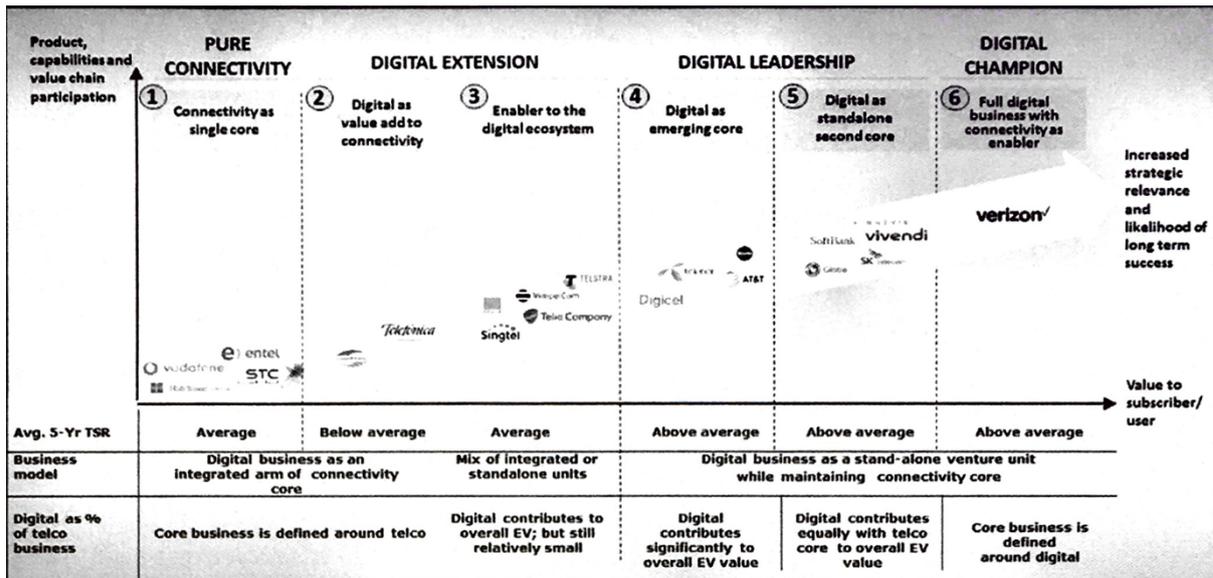


Figure 32: Telekom Malaysia Berhad’s Strategic Mapping (Telekom Malaysia Berhad)

In order to realize the convergence strategy, Telekom Malaysia Berhad started streamlining their existing products and services into two main categories, (i) the information exchange (such as cloud services and internet connectivity), and (ii) the innovation exchange (such as content-based services). In 2015, Telekom Malaysia Berhad further refined the convergence strategy by introducing a new vision statement, “Life Made Easy. Business Made Easy”. Three main pillars were designed to ensure that the vision could be met, namely (i) Easy, (ii) trusted, and (iii) innovative.

However, in 2017, Telekom Malaysia Berhad appointed a new Chief Executive Officer that essentially ignited a more holistic transformation. The new Chief Executive Officer also further refined the vision by introducing (i) a purpose – “Redefining our business purpose to be there for our customers’ and stakeholders’ Share of Moments”, (ii) strategic thrusts – “Staying focused on our strategic thrusts to Accelerate Convergence and Empower Digital”, and (iii) an execution model – “Realigning our priorities by establishing clear plans to achieve our aspirations in a timely manner”. The introduction of the purpose, thrusts, and execution model was to ensure that a holistic change could take place in Telekom Malaysia Berhad. The new introduction of the purpose had three keys intended output, which is (i) happy customers, (ii) revenue, and (iii) happy stakeholders. This relatively simplistic introduction of *purpose* has a

strong measurable rationale behind it. The **purpose** also **forced** Telekom Malaysia Berhad to realign its products and services to ensure that both home and corporate users would be able to experience Telekom Malaysia Berhad’s products and services seamlessly and be productive using the products and services. And with happy moments shared by both home and corporate clients, it is believed that it “will translate into our share of wallets. Share of wallets refers to the amount spent by households” and corporate clients (Telekom Malaysia Annual Report, 2017). This is depicted in Figure 33 below.

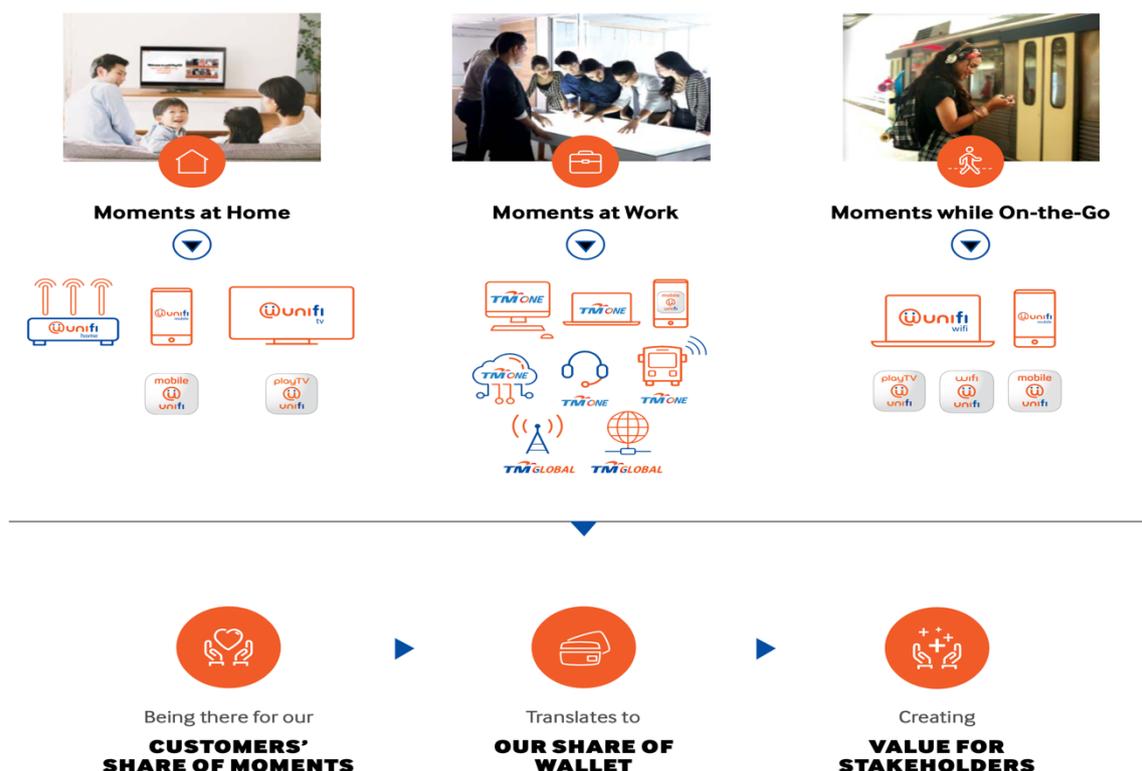


Figure 33: Telekom Malaysia Berhad’s Overall Corporate Strategy - 1
(TM Annual Report, 2018)

The introduction of strategic thrust was a critical component to bring Telekom Malaysia Berhad into the Digital Economy. The image below illustrates two key strategic thrusts; to **accelerate the convergence and to empower digital**. In order to ensure that the two introduced strategic thrusts can be met, two fundamental values were introduced, namely, reprioritizing productivity and embedding technology.

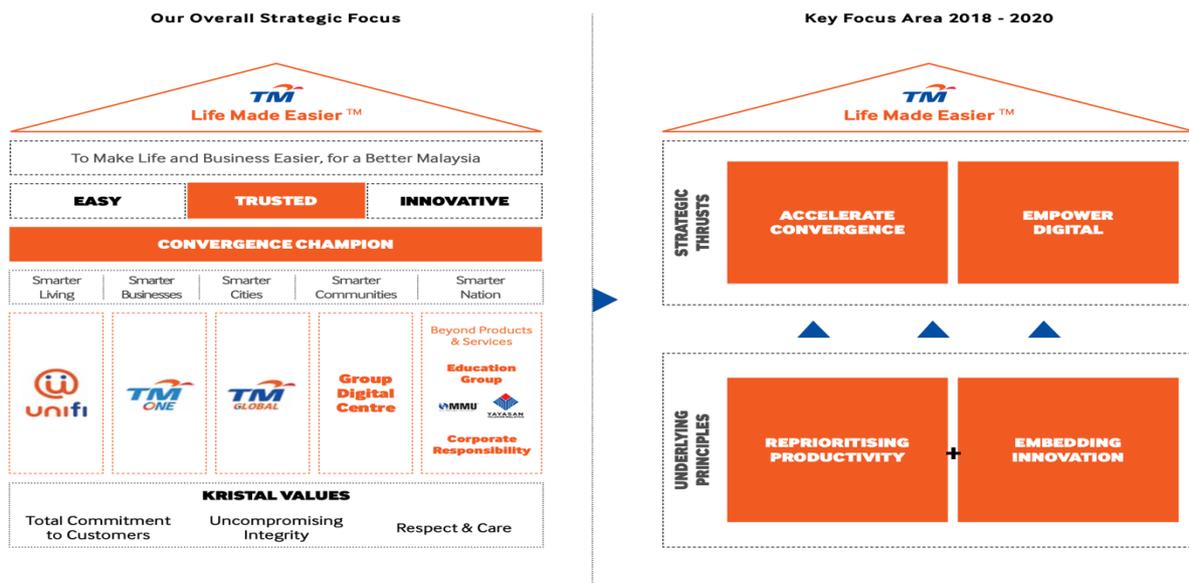


Figure 34: Telekom Malaysia Berhad's Overall Corporate Strategy – 2 (TM Annual Report, 2018)

Finally, an execution model was introduced to guide the organization in meeting the intended purpose and thrusts. The execution model is called **PERFEKE 10** (Figure 35).

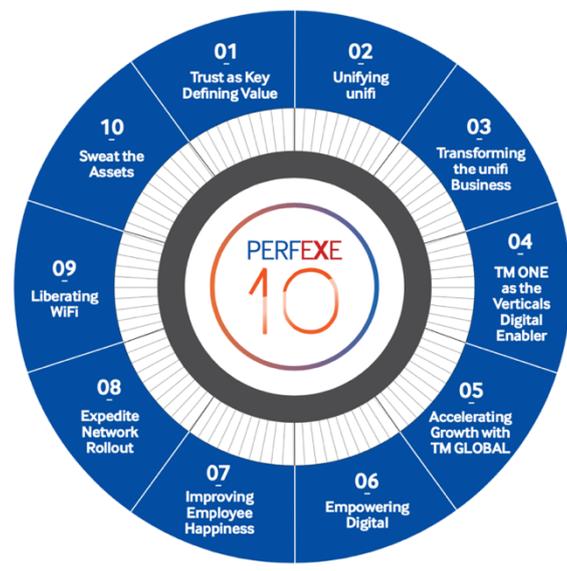


Figure 35: Telekom Malaysia Berhad's PERFEKE 10 – Operational Model (Telekom Malaysia Berhad 2017)

Within the ten areas of key executions, two stands out the most in relevance to this study, that is, **transforming the unifi business and empowering digital**. While the ten areas are considered as critical to ensuring Telekom Malaysia Berhad's vision is met, it could be argued that being digital was the essence and a very important tool that will drive the remaining execution line items and essentially drive the transformation of Telekom Malaysia Berhad to be in the digital economy.

Secondary data obtained from Telekom Malaysia Berhad's Annual Reports already indicate that Telekom Malaysia Berhad is leveraging technological innovation to compete with the global market. This is especially so when a major emphasis was given in streamlining all existing products under Telekom Malaysia Berhad. In addition, Telekom Malaysia Berhad had also embarked on their journey to bring Telekom Malaysia Berhad into the digital economy by including going digital as part of their strategic thrust and their action or execution plan.

5.3 What Is the Relationship Between Organizational Innovation and Privatization? Is Privatization A Form/Aspect of Organizational Innovation?

The next research question was to explore the potential relationship that could exist between organizational innovation and privatization; specifically, in finding out if privatization is a form or an aspect of organizational innovation.

Following the systematic review of organizational innovation, it was discovered that the changes that an organization goes through are essentially captured in the aspects of organizational innovation. These aspects of organizational innovation were depicted in Figure 36. These aspects were the change in structure (ownership and or organizational), the change in leadership, the change in work culture, and the change in process and policies. The recurring keyword that can be observed here is the word change. It was already established that the definition of privatization is "**policies designed to improve the operating efficiency of public sector enterprise through increased exposure to competitive market forces**" (Domberger, Piggott 1986). By explicitly taking out specific phrases, (1) policies designed, (2) operating efficiency, and (3) increased exposure to competitive market forces, it can already be observed that "policies designed" already refers to new policies required to ensure the effectiveness of the organization post-privatization. The second phrase, "operating

efficiency” further enhances the initial phrase “policies designed” by describing the output or the intended purpose of the changes in policy. The final phrase, “through increased exposure to competitive market forces” clearly brings to focus the importance of external environments.

The second area that the review on privatization brought to light was the specific determinants to privatization. Firstly, Liu et al. (2016) suggested that privatization occurred due to the growing concern of the rapid growth of the size of the public sector, and the growing dissatisfaction of the output and outcome of the state-owned enterprise. It could be argued that the purpose of privatization was to ensure that the organization going through privatization needs to be able to meet market demands by forcing the organization to make changes. These changes, arguable can come in the form of efficiency or productivity. (Mizutani, Uranishi 2010) clearly stated that the main determinant for privatization was market forces. Market forces, which is clearly, forcing the organizations to be more competitive (Aharoni 2018, Aharoni 2000).

The final area that the review on privatization revealed was that via the cluster-based analysis, three central clusters was observed. First, the national growth/policy cluster. This refers to the rationale by the Government to lessen ownership or their organization, to reduce the organization's dependence on Government budgets and to reduce any political affiliations. The second identified cluster brought the focus on market/economic forces. This essentially refers to competition and the ability of the organization to be competitive and innovative in bringing new products and services to the market. Additionally, this cluster further brings light to the ability of the organization, more specifically, the employees of the organization to be more innovative and professional in coming up with new processes, policies, or transforming itself from a government mindset corporate culture to a more innovative and creative corporate culture. The final cluster discussed the organizational performance. In this final cluster, the discussion revolved around the size of the organization in relevance to the productivity of employees and wages of employees.

By making a comparison between the aspects of organizational innovation and the definition with the determinants of privatization, it could be argued that privatization

shares similar, if not the same attributes to organizational innovation. The figure below illustrates these similarities.

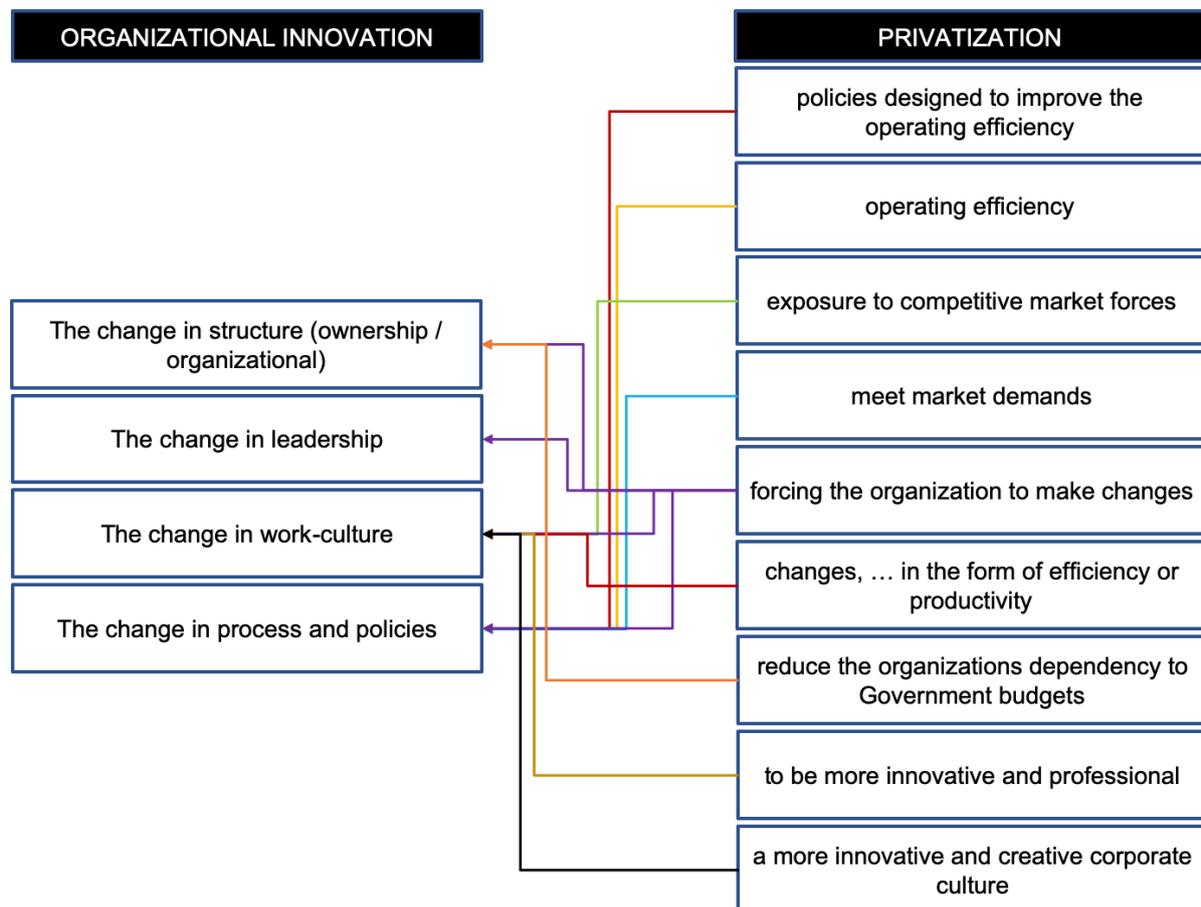


Figure 36: Similarities Between Organizational Innovation and Privatization
(source: author)

The figure above already proved to some extent that there is some form of relationship between organizational innovation and privatization. It could be argued that all of the descriptions on privatization falls under one or more aspects of organizational innovation, which, in turn, could be argued that privatization is a form of organizational innovation but an aspect of organizational innovation.

In order to prove this further, this study, as explained earlier, adopted the qualitative approach via semi-structured interview sessions with very selective participants that had privy information and knowledge of the mindset behind the privatization of the case study. Based on the aspects of organizational innovation, a set of questions was

derived to further potentially validate if privatization is a form of organizational innovation. The interview questions are as the table below.

Item	Questions
1	Prior to the privatization of Jabatan Telekom Malaysia, why do you think that the owners at the time, i.e. the Government, wanted to make radical changes within the organization?
2	Why was it critical to relook at the change of ownership structure of Jabatan Telekom Malaysia?
3	Why do you think that the Government wanted to change the ownership structure of Jabatan Telekom Malaysia, and why was it so critical to ensure that changes take place in leadership, organizational structure, work culture, process, and policies?
4	What do you think were the key determining factors that lead to the Government to privatizing Jabatan Telekom Malaysia?
5	Why do you think these factors were critical to the success of the transformation?
6	Other than the change of ownership, what, in your opinion, were potentially other key criteria's that lead to the privatization of Jabatan Telekom Malaysia?

Following a thorough analysis of the replies obtained, very specific premises emerged, which is best illustrated by the Figure 37 below.

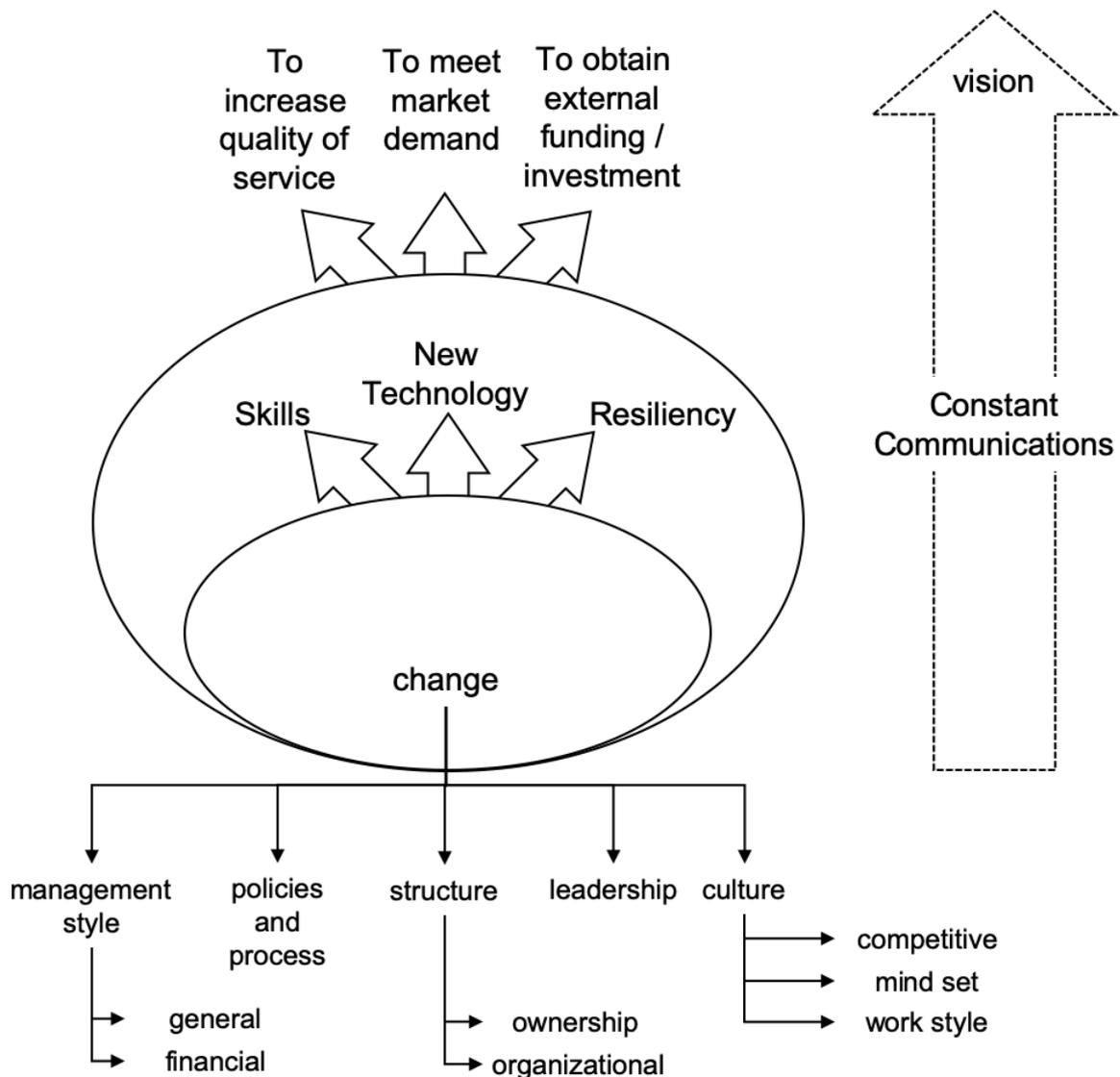


Figure 37: Emerging Cluster from Respondents

Source: data obtained from interviews

The above figure was derived by looking at the keywords that were extracted from the transcribed interviews. The first question was aimed to see what the possible thought process of the Government were, as the owners of the organization, behind wanting to make changes in the state-owned enterprise.

The specific phrases obtained was further clustered based on similarities and or theme. Two main themes were observed. The first was very specific towards productivity and efficiency. It was quoted that one of the main rationales for this needed change was to reduce bureaucracy; *“Unfortunately, Jabatan Telekom Malaysia the monopoly telecommunications services provider at that time, **could not respond effectively to the demand for services because its decision-making processes were hampered by prevailing government procedures and regulations.** These impacted on all aspects of Jabatan Telekom Malaysia’s operations, infrastructure development, and financing because Jabatan Telekom Malaysia had to get the approval of other government agencies for most decisions pertaining to personnel, equipment procurement, project implementation, and others. Such processes were time-consuming, and approvals did not always take into account the special needs of Jabatan Telekom Malaysia”*. And in order to ensure the increase in productivity and efficiency, data showed that changes in culture and mindset were the main priority. More specifically, changes by bringing in private sector competitive culture and mindset where more productive work could be achieved with fewer people by the introduction of improvements in how work was conducted and by bringing in innovation. Additionally, respondents also quoted that, in addition to work-culture and mindset, the Government acknowledge the importance of innovation and entrepreneurship in accelerating these needed changes. The Government, at the time, understood the mammoth task ahead and was echoed by one of the respondents; *“It was a challenge, and it took time”*.

The next theme that could be observed was in the area of efficient decision-making. While this could be argued as part of the theme above, data indicated that this opinion was more related to how the organization needed to be governed. This was found when one of the respondents stated. *“Jabatan Telekom Malaysia had to get the approval of other government agencies for most decisions pertaining to personnel, equipment procurement, project implementation and others. Such processes were time-consuming, and approvals did not always take into account the special needs of Jabatan Telekom Malaysia”*. The Government wanted to relinquish administration and financial burden responsibilities and allow the organization to be more accountable to their destiny. The thought process of this decision was mentioned when a respondent stated. *“It should be mentioned that at that time the government was also keen to*

devolve itself from business so that it could focus on governing. This led to the privatization of government agencies and services that were considered business-oriented”.

Question two focused on the change of ownership and data obtained are as follows. There are essentially two key areas that were being discussed. The first being the end game or objective. The other being the how or the mechanics and focus areas of change. With regards to the end game, it was clear that due to the nature of how the growth of telecommunication is seen at that period of time, where the Government believes that telecommunications are fast becoming a basic necessity in running daily lives, running businesses, and essentially, how telecommunications is a major factor in all economic activities. In order to ensure that the infrastructure and service are able to cater to future demand, the Government recognizes that their state-owned enterprise needs to go through rapid growth, which will guarantee customer satisfaction. Therefore, to achieve this intended growth, the telecommunication company needed to develop aggressive developmental plans, which in turn requires additional investment that must not come from the Government. This end game necessitates a structure change, which requires a leadership change that will drive policy changes. At this juncture, the Government recognizes that there need to be two major changes, namely, a physical change and a cultural change. These changes fall under “the how” or the mechanics of change. Both changes are deemed critical and most challenging. This was evident when a respondent commented the following, *“work culture in the private sector is based on managing and not administering. This means that the burden of responsibility falls on an individual. For the Government, this burden of responsibility falls on the office rather than the person”*. The respondent continued to state, *“mental change is continuous/perpetual and very hard to measure. Meantime, physical changes can be measured by organizational performance, such as financial, productivity, and quality of service”*.

Thoughts regarding the concern on transforming a state-owned enterprise to be more productive were clearly addressed when a respondent brought up the following, *“With so many potential changes, there is certainly a high level of dissatisfaction that will take place. Therefore, it is important to prepare for this impending cultural change. Otherwise, the performance of the organization could be jeopardized. Many*

workshops, seminars and alike needed to be done to allow employees to understand and absorb this new corporate culture, with special focus on performance excellence, being diligent, hard-working, and putting corporate above and beyond rank, designation or stature". Hence, solidifying the criticalness of the need to change and the severances of ensuring a transition that would not disrupt "work as usual" into "work unusual".

The third question focused on the rationale behind the need to change. Question three further validated what was discussed in question two. However, one very pertinent point came out in the data obtained here when a respondent stated, "*The transformation of Jabatan Telekom Malaysia entailed a total revamp of the organization, work culture, policies, and processes because what was in place at that time reflected what the central agencies in government allowed Jabatan Telekom Malaysia to do and to acquire in the way of skills and technologies*". The keywords that jumped out from this are "... *total revamp of the organization, work culture, policies and processes ...*". These are specific words that were already discussed in-depth above in explaining the aspect of organizational innovation. Thus, the aspects of organizational innovation are worth reiterating once again, which are the changes in structure of both ownership and organizational, the changes in process and policy, the changes in leadership and the changed in culture. **This already gives evidence that privatization is an act of organizational innovation.**

Highlighted keywords and phrases further validated this very critical finding. An organization needs to be agile to ensure growth, and it needed to be done holistically and not in isolation. Transformation or change is required; not just the change of leadership that will allow more private-sector mindset into the organization, but also the change in how people or employees can be developed in new ways with new business tools. It can be argued that such specific changes are addressing the change in work culture. The need to change the process and policy was clearly expounded when a respondent stated, "*The policies and processes in Jabatan Telekom Malaysia were designed with what was possible in the absence of the technologies needed to provide better services; the organization was designed so that it could carry out these processes and also based on organizational structures that Jabatan Telekom Malaysia was allowed to have*".

From the third question, the answers from the respondents clearly indicated that privatization is indeed an act of organizational innovation. It also further validates the similarity that has been discussed, where in theory, how privatization and organizational innovation is similar.

The fourth question was meant to validate question one and the answers obtained was similar to question one. Specific keywords can be extracted are as follows:

- To reduce government spending
- To unlock potential values
- Increase efficiency
- To raise funds
- Increase efficiency
- Reduce bureaucracy

These identified trends from the answers further validated the opinions and thoughts given in answer one.

Question five discussed on the how and what was used to measure the success of the change of state-owned enterprise, namely, Jabatan Telekom Malaysia, into Telekom Malaysia Berhad. It was very clear that the senior management and c-suites of Syarikat Telekom Malaysia, at the time of transition, saw the importance of privatization and what was needed to ensure success. One was quoted stating, *“For any transformation to work effectively, it is important for the objectives and benefits to be clear at the onset”*. This statement relates back most importantly to a new leadership that would be needed to ensure the organization stays on track, grow and expand.

More importantly, the respondents echoed each other when similar answers were obtained on the mechanisms to ensure change. A respondent was quoted saying, *“To transform from a cost center to profit center need to be done very carefully”*. This was evidently clear when another respondent mentioned, *“telecommunication has become a national strategic service as it is not only for the pure use of connecting individuals and corporate’s but to also connect Malaysia to other Nations. Telecommunications*

has come to a stage that it is a basic necessity for our daily lives, our businesses and all economic activities. To corporatize Syarikat Telekom Malaysia (STM), there needed to be some critical changes". To change for the sake of changing is a cliché. To change and ensure not just the organization transforms itself, but to ensure that the organization transforms itself to allow an unparalleled service of telecommunication is serious. An inward change to meet a continuous outward-in demand.

The final question focused on obtaining thoughts on what other potential values of privatization. The final question brought out a few very interesting findings. It was clear that to bring value to shareholders was one of the main outcomes of the privatization alongside value to customers. This can only be achieved by bringing in technology to facilitate and grow products base, and to reduce red tape that appears to be inherent to state-owned enterprise. And in order to bring value to shareholders and customers, a respondent stated the need to have a cultural change that was not an issue in the early stages of privatization. There was continued demand by market forces, especially by global players in the form of investors and business owners to liberalize the telecommunication market. The Government believed Telekom Malaysia, as a national strategic service, needed to compete accordingly. Thus, making the transformation of Telekom Malaysia Berhad even more pivotal to Malaysia. A respondent outlined, *"As Jabatan Telekom Malaysia played the dual role of operator and regulator at that time, the first step was to separate the two functions. The next step was to get the telecommunications business operator (at that time STM and later TMB) on its feet before opening the Malaysian market to competition. It was imperative to strengthen the dominant service operator before bringing in competition to ensure that services to the non-profitable areas of the country could be provided. Bringing in competition too early would jeopardize this responsibility for universal service because investments would then be focused mainly on profitable sectors of the market"*. This answer was very intriguing as on top of reaffirming the importance of changing Jabatan Telekom Malaysia into Telekom Malaysia Berhad, the respondent also eluded that Telekom Malaysia Berhad also served as a national level interest in ensuring telecommunication services are also available in non-profitable areas in Malaysia. This statement was extracted when the same respondent stated, *"... to ensure that services to the non-profitable areas of the country could be provided ..."*. This is one

phenomenon that would be incredible to look into in future studies where privatization of a state-owned enterprise was also expected to serve national or state-level requirements that are not profitable.

In summary, the six questions asked to the participants were essentially seeking their understanding of the purpose behind the privatization, what are the key area of changes that needed to take place, and what was the expected outcome of the privatization. Reflecting on the answers given, it was clear that the main reason behind the privatization was twofold, namely economic reason and funding reason. While telecommunication was accepted by the government as a key infrastructure that connects friends and family, it was also an infrastructure that would connect businesses and Malaysia to the rest of the world—thereby making it a very significant and crucial area of growth for Malaysia and Malaysians. The second reason is directly related to building a world-class telecommunication infrastructure, that is, financing the setting of world-class infrastructure and the human capital that would see it through.

However, it was also interesting to note that as an incumbent, Telekom Malaysia Berhad, upon privatization was also expected to look into investing and providing services in non-profitable areas within Malaysia, thereby making Telekom Malaysia, though privatized, arguably still has inherent responsibilities to “serve” the Malaysian Government. A potential contradiction to the intent of privatization, but nonetheless, a fragment of the entire outcome.

It was also clear, based on the rationale behind the privatization, the Government expected that the key areas that needed to change were (i) bringing in new leadership as well as more business, entrepreneurial, and most importantly, more innovative mindsets into the organization. There were three other changes that the Government needed to take place, (ii) the Government wanted the organization to adopt a more conducive work culture, that is, changing from a civil servant or Government mindset or governing mindset to a more market-driven work culture, such as collaborative, creative, innovative, entrepreneurial, and market-driven work culture. Additionally, to ensure that the leaders, individuals, and work culture can take place, the Government also expected changes in processes and policies to facilitate the transformation.

Finally, the structure of the organization needed to change. This “new” organization needed new board of directors and senior management that would be able to guide and steer the new organization to meet its intended new objectives. This new organization also needed a change in the organization structure to reflect the structure required for the new organization to work towards meeting the newly set objectives. The four very central changes that the act of privatization is expected to make. Based on data obtained from the systematic literature review, these changes are mirror images of the aspects of organizational innovation, namely, change in structure (ownership and organizational), change in leadership, change in work culture, and finally, change in process and policies.

5.4 Primary Data Obtained

The importance of urgency and transformation

The primary data, which was obtained from the semi-structured interviews was rich and filled with interesting anecdotes that covered thoughts on the organization’s new direction and its relation to work culture, leadership, processes, and policies. The data had specific opinions. But before diving into the data to answer the final two questions, it is imperative to look at what the data says regarding the transition Telekom Malaysia Berhad had to undergo and the importance of the transition. A respondent stated, “*I think the turning point was when TM demerge in 2008 (the demerge here refers to when CELCOM, one of the bigger mobile/cellular-based service providers became fully owned subsidiary of Telekom Malaysia Berhad). That was the turning point. Suddenly we realized that the mobile business was growing at that time. What was left with us was the fixed business, and that was declining. We were experiencing an eight to ten percent decline on an annual basis*”. This realization “jolted” the senior management and several middle management teams. One stated that Telekom Malaysia Berhad can no longer behave like an incumbent and that there is a dire need for change and that organizational innovation was important to Telekom Malaysia Berhad. The respondent said, “*organizational innovation is important as this is key to keep Telekom Malaysia Berhad in the market*”. Another respondent stated, “*this will make Telekom Malaysia Berhad more competitive and relevant ...*”, while another said, “*... **business as usual** is no longer acceptable*”. Taking advantage of data and analytics were very vital pieces in ensuring that Telekom Malaysia Berhad can

compete continuously. Both data and analytics will provide a means and ways to ensure more efficient delivery of service.

There appears to be a sense of urgency when one management team iterated, *“I think the realisation of the organization is in the sense of urgency for a number of reasons. As you know, the market is evolving, there is a clear understanding that, you know, the competition is intensifying and high can go much faster, in terms of potentially losing market share, or getting less relevant, or separating business or not being able to invest in the next wave and so on. I think the realisation is there. Also, how fast, they need to move faster is also there”*. This was further echoed by another manager, *“I think it is not a high priority anymore. It is at a critical level because we have had many years of putting it on high priority, but it has to come to a point where you need it to survive”* and *“We must improve our productivity. We do not have much choice”*.

Transformation and the Digital Economy

Another management brought the idea of organizational innovation's importance to Telekom Malaysia Berhad by linking it to the digital economy when it was quoted, *“I would probably not call it organizational innovation. I would call it, living or positioning the organization in the digital culture”* and *“In the digital culture to support innovation, the rise of the unwritten code, meaning our work is governed by things that are not written yet”*.

In order to encapsulate the strong intent by the management team, an innovation model (Figure 36 below) was developed. This innovation model was developed and approved by the Board of Directors. The innovation model was designed to have four areas of innovation; (i) A business model innovation that includes lateral thinking innovation, (ii) product/service technology-based innovation, (iii) process/day to day innovation, and (iv) technology/R&D-based innovation (technology here refers mainly to infrastructure). Telekom Malaysia Berhad via its innovation council or JEDI (Jemaah Digital or The Digital Council), identified that Telekom Malaysia Berhad needed to meet two levels of innovation, namely, (i) incremental, where the measurements will be on process improvements, and (ii) radical, where the JEDI Council will look at high-risk activities and development that would result in new products and services. The

final component in the innovation strategy is to ensure that all levels can connect and collaborate to work towards this end. The idea flow can come from the top or the bottom, ensuring a more agile approach to solving problems. It also opened up Telekom Malaysia Berhad to ensure stronger collaboration with external parties, irrespective of geographical location.

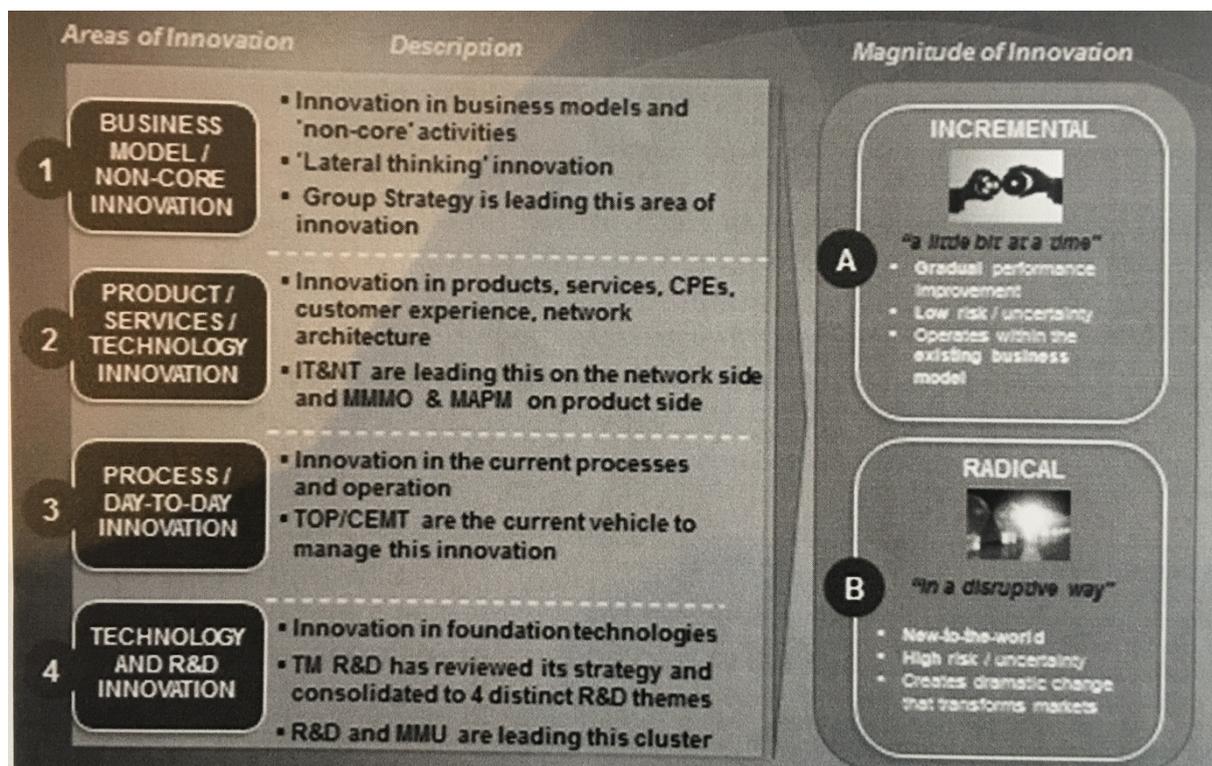


Figure 38: Telekom Malaysia Berhad Innovation Model
(Source: supplementary data from interview)

Technological Innovation and Digitization & Digitalization

Based on past studies, it was evident that there were similar elements in both technological innovation and digitization and digitalization. However, data obtained from the interviews indicated that technological innovation is a form of digitization and digitalization; thereby playing an integral role in the transformation of an organization as a tool to change work culture, increase productivity, and new products.

A participant stated, "*innovation is interlinked between technology innovation ...*". The employee continued saying, "*... because when you talk about technology, what does*

it mean when we adopt the technology to our current process? Process and our behaviour towards delivering certain things will change accordingly. Typically, it is triggered by the technology that we adopt". However, more pronounced was an opinion given by one of the senior management team, who said, *"when you are in a dynamic market, you are more externally than internally focussed. You will see that the world around us is changing every day. So, how can the world change, to a technology organization and business model keep changing, and you don't change ..."*. This individual felt that Telekom Malaysia Berhad made the right choice in moving to be a more technology-based organization due to how technology is fast becoming a market in order to remain relevant and to be competitive. More interestingly, another senior management stated that in Telekom Malaysia Berhad, the individual strongly believes organizational innovation needs to evolve into *"... living or positioning in a digital culture"*. This statement made by a senior management team member illustrated how technological innovation is and can be driven by the digital economy. Digitization and digitalization are two main components of the digital economy that Telekom Malaysia Berhad has embraced. The senior manager believed that **for technological innovation to take place, there were a lot of other factors that need to change in Telekom Malaysia Berhad**. The discussion with the senior manager brought a lively conversation regarding how one element of change requires another.

New products and services were developed because of the changes that Telekom Malaysia Berhad had to go through. Data indicated that new products and services were introduced by Telekom Malaysia Berhad due to organizational innovation. Evidence also indicated that due to organizational innovation, new collaboration platforms from external partners, locally and globally, were achieved through new products and services. For example, Telekom Malaysia Berhad, from the changes that took place, introduced WEBE, the first digital-based product (Telekom Annual Report, 2016). Telekom Malaysia Berhad claimed that WEBE is the first digital-based mobile product operated by the first global digital operator. The introduction of WEBE was to initially liberalize customers from the standard mobile plans available amongst many traditional cellular-based providers. In order for WEBE (the technological innovation) to be successful, factors such as processes and policies regarding sign-ups, payments, customer service, and troubleshooting need to be addressed

simultaneously. Thus, making digitization and digitalization extremely critical factors for technological innovation to flourish.

In order to address the “back-end” factors mentioned (such as processes, customer service, and troubleshooting), Telekom Malaysia Berhad launched an initiative that encouraged employees from all walks of life and background to participate in churning out ideas, test them, build prototypes, and if it works, roll them out organization-wide. All participants echoed the importance of ensuring backend and frontend coincide to almost guarantee the success of all technological innovation and digital transformation. Among all, one interviewee stated this succinctly, “The execution of innovation in TM is to try and change the way people work in TM” and continued to say that the “New CEO wants to liberalise many things within the TM Group”. This can only be accomplished once all employees, irrespective of age and expertise, can come together for a common cause. To do this is not an easy task as Telekom Malaysia Berhad has more than twenty thousand employees with different mindsets.

The Difference between Digital Technology and Technological Innovation

Majority of the products and services was created internally by various teams that adopted the agile/lean startup approach (such as learn fast, fail fast, most viable product, and improvise) (Srinivasan, Mukherjee 2018, McLane 2018, Ries 2014) and the design thinking approach (Brown 2008, Pressman 2018, Carlgren et al. 2014, Liedtka 2015). Some of these products were meant to make Telekom Malaysia Berhad more efficient. Efficient in communication, collaboration, and decision-making. An individual interviewed stated, *“in digital culture to support innovation, the rise of the unwritten code, meaning our work is governed by things that are not written yet”*. The majority felt that Telekom Malaysia Berhad is moving faster than normal. Data plays a very important role in Telekom Malaysia Berhad approach to be more efficient in communication, collaboration and decision-making. A participant said, *“I think it has been very quick. As you can see now there are focussing on data. They are moving as quickly as technology changes to keep up ... It is not like there is a lull in between one product to the next. So, I would say yes. It has been pretty quick”*. Some middle management quoted that, *“It (decision-making) is so much faster. Ten days then one day now”*.

It is interesting to note that the discussion regarding technological innovation moved in and out with the efforts that Telekom Malaysia Berhad did with digitization and digitalization. It could be seen that the management team in Telekom Malaysia Berhad was more comfortable discussing digitalization and digitalization versus how technological innovation is impacted by organizational innovation. It could be argued that all interviewees considered people and people working together is the key solution for Telekom Malaysia Berhad to be successful in its technological innovation and digital transformation. The findings of how technological innovation is mediated by the digital transformation where digitization and digitalization are the main activities have emerged in the interview sessions. Thus, bringing and answering the final research question of, *what role does digitization and digitalization play in driving technological innovation?*

As stated above, the discussion on technological innovation and the digital transformation went hand in hand with more emphasis given on the digital transformation as a key driver for the success of technological innovation. An employee said, "It goes hand in hand with productivity, and as part of continuous improvement, we also need to innovate our products, solutions, process, technology, business model, etc. to achieve higher efficiency". While another said, "We are encouraged to get ideas coming from anybody ... to improve our process and delivery or restoration work and how then can it be translated to better (cost) management, improve cost savings (cost optimisation)". The strong indicator connecting the importance of the digital transformation lies in the above statements, and another made by one of the interviewees, "There is a strong push for us to make a lot of processes, work processes, to support our own internal business as well as the b2b business. Our clients are also growing very much digital, and we want to be that major enabler for that". This comment was further validated by another individual when the participant said, "*Embedding innovation and productivity in clusters across TM via agile for continuous improvements and innovation*". In this statement, it was also evidently clear that there is a clear focus on continuous improvements and that organizational innovation ensures this continuity and reiteration.

As evidenced, in embarking into their digital transformation, several products were developed to help Telekom Malaysia Berhad becoming a more efficient organization that could continuously innovate. As mentioned earlier, these products are Telekom Malaysia Berhad's key products and services, which were introduced to ensure a change in process, policy and work culture. The agile teams came up with six different digital tools (as of the data was collected). One is called HERO. HERO was developed to ensure the after-sales service team is able to address and raise all issues and manage customer complaints more effectively. More profoundly is that HERO, though meant for the support team, also empowered all Telekom Malaysia Berhad employees to be after-sales service agents. What makes HERO a powerful tool is how another agile team came up with a digital tool they call FLOW. FLOW is a simple digital application to ensure collaboration took place. Additionally, FLOW is also meant to make decision-making faster. An agile team member (who is also a management team in Telekom Malaysia Berhad) stated that what took Telekom Malaysia Berhad "ages" (i.e. a month or more) to make decision was brought down to as late as a day, if not faster, depending on the magnitude of the required decision-making. One senior manager said, "*this is unheard of in Telekom Malaysia Berhad*", and another senior management team said that prior to the agile team being set up, a product would take at least twelve months minimum to be developed and rolled out. The participant shared that with the agile team, it has taken the teams to test and roll out products and services in six months or less.

To further enhance both FLOW and HERO, three other apps were developed by the agile teams. These products were developed to measure how employees (felt when coming up with an idea, developing, testing, and rolling out the applications) and customer (felt when a problem is solved, how a problem is solved, the speed of how it was addressed) reacted. These tools are SMILE, VOE, and VOC. VOE or voice of employee and VOC of voice of customer is mainly to measure satisfactory levels. While SMILE was developed to measure happiness of employees in real-time. All the above tools were developed to enhance internal matters, such as process, policies, work culture while being a digital enabler to employees and more importantly the customers.

All of the above-mentioned digital tools were developed by different teams in different divisions or departments or units within Telekom Malaysia Berhad. There was no evidence to indicate that each of the five tools is inter-connected as they were done to resolve specific issues in and within specific units, even though the team members of each agile team came from employee from different units, departments and divisions. It would be interesting to observe how these five tools are integrated in the future or further developed as a business tool. Nonetheless, this observation can be looked into as follow-up research.

Once the relationship between technological innovation and the digital transformation (via digitization and digitalization) was established, the final component of the research needs to be answered, that is, how does this newly found relationship affect organization performance.

It is important to note that the innovation model and the digital transformation only took place in 2017 and 2018, respectively. Therefore, all senior management team interviewed adamantly gave a disclaimer that it is still very early to measure any tangible typical organizational performance (such as an increase in revenue and reduction in cost). However, following the tools developed, key measurement indicators were developed and monitored. The JEDI Council looked at the following performance indicators:

- Time to market - Product or tools developed in less than six months (more than 12 months prior to the introduction of the agile and design thinking approach)
- No of ideas versus ideas developed versus ideas adopted versus adoption rate (no specific number was given for the number of ideas and adoption rate) – ideas developed: 5
- Impacts on TM
 - Work was done faster
- Biggest positive change:
 - Internal mindset

5.5 CHALLENGES FACED TELEKOM MALAYSIA BERHAD

Nothing new implemented is drought with issues and challenges. In the roll out of the innovation model, the key challenge faced was narrowed down to (i) mindset, (ii) structure, and (iii) speed. The mindset mentioned by the participants referred to the work-culture or corporate culture. Within the twenty thousand plus employees, many of the employees had “inherited” the complacency and bureaucracy mindset of Telekom Malaysia Berhad of the past. All of the interviewees echoed this specific issue. The following were the specific thoughts on mindset that was highlighted by the participants:

Mindset

- *“We are all over the place. Our presence is everywhere” – this refers to the sheer size of presence of Telekom Malaysia Berhad across Malaysia.*
- *“.. the challenge of being an incumbent ..”*
- *“We must also remember that we are a public listed company, we are also a Government Linked Company*
- *“Sometimes the leaders are excited, but we need to make sure that when we implement, the people on the ground area really excited ...”*
- *“... these agile and convergence’s processes supposed to shorten the processes. And so, gives more responsibility to individuals to move at their own comfortable pace on getting the jobs done. But we can’t forget our SOP. You have to remember that TM is an old company. It is a systematic company. We have processes ...”*
- *“if my boss is not around, work can’t move.”*
- *“There is no sense of urgency”*
- *“... do you want to do more for your company when you are paid peanuts?”*
- *“Getting people to move out from their comfortable being, I think is easier said than done”*
- *“... they are like complacent, Like, I can live happily ever after.”*
- *“... the power of trust becomes important. And our era, to give trust or empowerment is very difficult.”*

Structure

- *“The major issue in TM is that in Malaysia, we have different tiers, we are still very hierarchical. It has to go down to the ground ...”*

- *“our type of organization has an audit function that is independent of the management, and the auditors might say sorry guys, you are breaking the law”*
- *“leadership has to be agile” (meaning the current leadership is not as agile as they want others to be)*
- *“We have both social and economic obligations ... others don’t have the obligations of social-economic ... allow me to manage Telekom Malaysia like an MNC (Multi-National Company). Hire and fire. But I cannot”*
- *“We want to give them the freedom to run with it, and yet they want governance. We do policies based on what we have gone through in our glorious days”*
- *“There is a percentage of our people that is old and retiring and have been working for more than forty-three or forty-eight years”*
- *“bear in mind that TM is a global and big company, and there is a lot of messages. I mean in an hour, it can be five hundred messages, for example ... I don’t know if that is efficient ... nor logical”*
- *“Strategies not working as expected. The main problem here is because the current efforts want to do a quick fix and addressing low hanging fruits and short arms solutions. In order to really ensure oi to work, there is a need to have a structural reform”*
- *“The challenge is how you balance, and the need to move fast with governments.”*

Speed

- *“for me, the biggest challenge for me is speed, speed of getting things done.”*
- *“It is like running up an escalator that is moving down”*
- *“I think obviously, it is moving too slow”*
- *“definitely, speed is slow”*
- *“it comes from a silo mode which also slows down these things”*

The three challenges are not mutually exclusive. They relate to one another and impact one another. This is consistent with what is argued in the Systems Theory, where one element is dependent and inter-dependent to one another, and that there is more than one approach to meet the objective of an organization. It could be argued that the structure of Telekom Malaysia Berhad being a privatized state-owned enterprise has (i) both social and economic expectations and (the sheer size of the organization itself, are the main contributors to the above constraints outlined).

However, another argument that can be raised is that the leadership of Telekom Malaysia Berhad—both the representatives of the ownership via the Board of Directors and the senior management—can affect and effect the necessary changes in structure, drive, and resolve of the nation. Both arguments are valid and critical to ensure the successful continuous transformation of Telekom Malaysia Berhad. It can also be argued that both structure and leadership combined has caused the issue of speed of adoption and execution. While the issues raised are not answered in this paper, it would be an interesting area to explore in future studies relating and extending the systems theory in the context of organizational innovation and privatization.

Data also included other worries and concerns. Specific themes were observed (including the three outlined above), namely, (i) Corporate Culture or Mindset, (ii) Business as Usual (BaU) versus Business Unusual (BU), (iii) Legacy (or characteristics of a state-owned enterprise), (iv) Thought Process, (v) Speed, (vi) Measurement, (vii) Talent Management, and (viii) Challenges. In mapping the above six observations or clusters of themes, the following linkages could be made in relation to the aspects of organizational innovation.

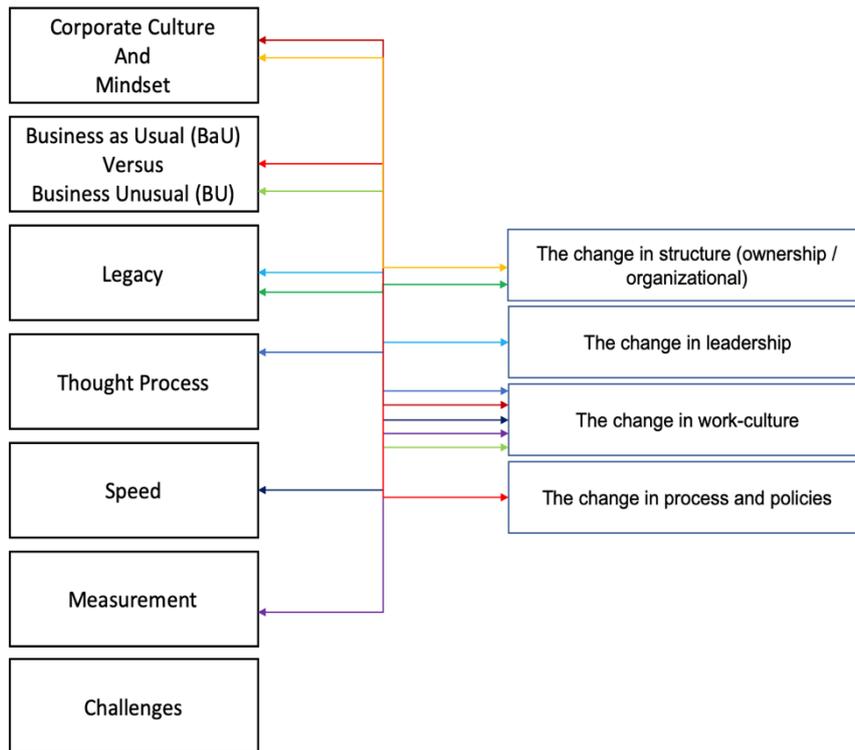


Diagram 39: Linkages of Data Clusters and Aspects of Organizational Innovation
(source: author)

This observation on the theme identified based on the quotes obtained mapped against the aspects of organizational innovation can be argued that every theme identified is both directly and indirectly link to the aspect of organizational innovation. Thus, making the digital transformation that Telekom Malaysia Berhad has and going through addresses the aspect of changes, which is under organizational innovation. The final theme, the challenges identified from the quotes obtained, outlined the issues that Telekom Malaysia Berhad faced in the transformation or the changes an organization goes through in organizational innovation.

5.6 SUMMATION OF CHAPTER 5

In conclusion, by bringing all the data obtained from the interviews together, it could be argued that Telekom Malaysia Berhad as a whole see what the organization (and themselves) are going through, which is depicted in Figure 40.

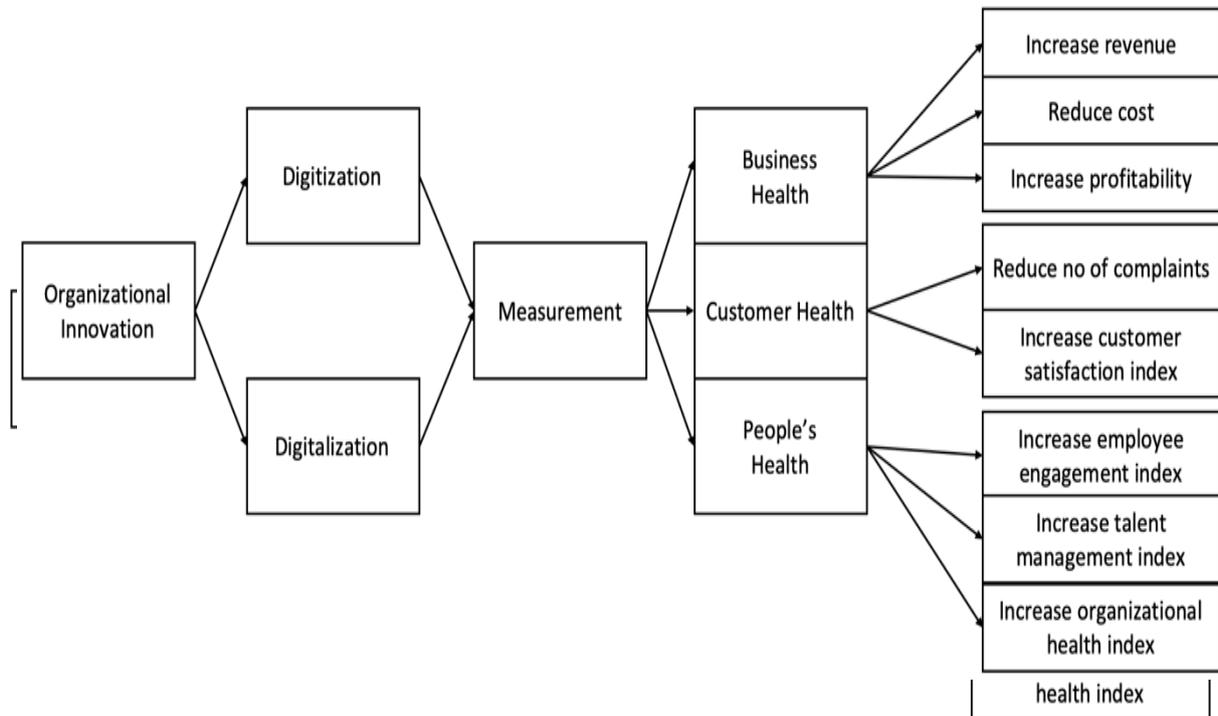


Figure 40: Respondents Perspective of Organizational Innovation
(source: author)

Organizational innovation is viewed as the process of changes that a digital transformation (digitalization and digitization) brings to Telekom Malaysia Berhad. The digitalization and digitization were giving rise to specific key measurement indicators. And these indicators to specific targets set to meet company wide. Additionally, in expanding the above finding, the digitization and digitalization element of organizational innovation mediates the technological innovation created by Telekom Malaysia Berhad. Taking from the initial research framework, the above overall observation can be further layered to show a bigger profound finding that the overall findings fits almost accordingly to the research framework, thereby proving the validity of the framework, (i) privatization is an act, and a form of organizational innovation, (ii) digitization and digitalization is a mediator to technological innovation, and finally (iii) digitization, digitalization and technological innovation contributes to organizational performance. This is shown in Figure 41.

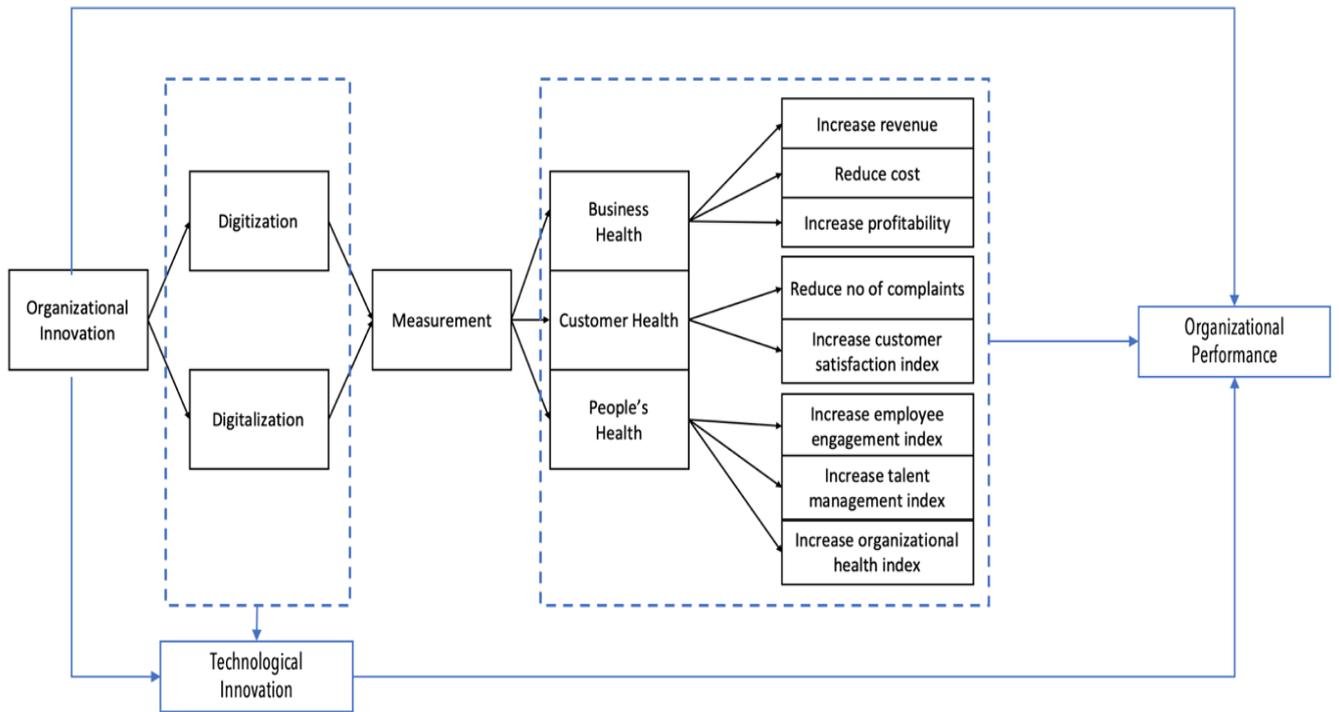


Figure 41: Respondents Perspective of Organizational Innovation Mapped Against Technological Innovation and Organizational Performance

CHAPTER 6: CONCLUSION

6.1 Recap

This study was initially motivated by the high curiosity behind the failures of large organizations (especially with privatized state-owned enterprise) to execute innovation. From this onset, it was found that large organizations rely on structure, processes, and policies to drive innovation. Thus, bringing the importance of exploring a clearer understanding of organizational innovation. Organizational innovation is viewed as the knowledge that dealt with structure, process, policies, and work culture. But scholars continue to debate about the concept of organizational innovation for more than four decades.

This long debate covered specific areas of organizational innovation as well as all possible elements of innovation in an organization. Elements, such as leadership, corporate culture, knowledge management, human resource management, change management, management innovation, and (new) product development continue to bring in debates and arguments with new perspectives and contexts. However, studies that relate to innovation in organization and organizational performance, while may show some evidence of a positive relationship, also show that the fundamental measurement of performance, namely, profitability, is lacking or insignificant. At the core of running a business, fundamentals such as from coming up and adopting new management approaches, process and policy to breaking work silo's increasing collaboration and communication are argued to be the centre of gravity to allow innovation to take place. This core is also known as organizational innovation.

By conducting the systematic literature review through the lenses of a cluster-based analysis, it was found that a recurring trend comprising, in one way or another, how individual(s) play a significant role in affecting the overall nature of business and organization. For example, how individual(s) affect corporate culture, communication, teamwork, or creating obsequious behavior in order to rise up the ranks or gain favor. These individual(s) comprise the Board of Directors, Top Management, Middle Management, Employees, Partners/Vendors, Society/Users and Politicians. It could be argued that this finding is rather simplistic. However, it cannot be dismissed that it is the action/reaction or the lack of action/reaction of these individual(s) that

determines the success of any change execution in an organization. This finding is in line with the findings by Laloux (2014), where the author argued that the organizations today are broken due to how individual(s) in large organizations are disengaged from their work. Disengagement here refers to how senior management seems to be exhausted and stressed over the daily corporate grind; tired of making the board of directors happy, tired of making shareholders happy. And such disengagement inherently has cascaded downwards to the employees of the company resulting in a corporate culture that is unhealthy and non-innovative (Schein 2010, Bschgens et al. 2013, Lemon, Sahota 2004).

To bring this study into context, this researcher wanted to look into one area that has not been looked into, that is, organizational innovation and privatization and how both bodies of knowledge are not mutually exclusive. Both studies on its own are equally important but have travelled on its own very specific tangent. Other than one study that looked into the rise of privatization, there has been no research that has looked at the possibility that privatization could be an aspect or an act of organizational innovation. The study by (Dunleavy 1986) that proposed privatization is organizational innovation was from the perspective of an influx of privatization by comparing public choices and radical approaches, and by better understanding the concept of the new right views¹⁶. Leaving a gap in the study of business management that privatization could be an act or an aspect of organizational innovation.

Based on the study conducted, four specific elements of privatization, namely, the change of structure (both organizational structure and ownership structure), change in process and policies, change in leadership, and finally, change in work culture. The main denominator found was the need for change. Such a strong common denominator also permeated throughout the systematic literature review conducted on organizational innovation. Sometimes coined as management innovation, organizational innovation discussed the change required in policies, processes, management styles, leadership, and culture to ensure continuous innovation in an organization. However, a definition was given to allow a more macro understanding of what organizational innovation could mean.

¹⁶ The new right views' is an argument concerning political views.

This research then took on to explore how, if privatization is an aspect or an act of organizational innovation, would affect the organizational structure of a privatized State-Owned Enterprise. This study found that there was a change in the organizational and ownership structure of Telekom Malaysia Berhad. However, the Malaysian Government had opted to maintain a majority share of Telekom Malaysia Berhad. Reasons for this decision was not able to be obtained as the Board of Directors was not available for interview. The C-Suite and Senior Management did not have privy knowledge of the decision. But it could be argued that due to Telekom Malaysia Berhad owning one of Malaysia's national asset, it was imperative for the Government of Malaysia to still own a majority share of Telekom Malaysia Berhad. However, this is not unique at all as there has been other State-Owned Enterprises where the Government had decided to retain majority shares (Xu, E., Zhang 2008, Ab Razak et al. 2008, Rong et al. 2017, McGowan 1988, Boateng et al. 2018).

In the case of Telekom Malaysia Berhad, based on their audited accounts, Telekom Malaysia Berhad showed steady financial growth over the past three years ending 2017 (Telekom Malaysia Berhad 2017). However, with the implementation of new strategic organizational innovation, Telekom Malaysia Berhad is still at the infant stage to actually conclude if the execution of their organizational innovation is giving any significant financial returns. Over the past three years, based on the data obtained, there was mixed feedback that came from the C-Suite and Senior Management versus the middle and managers of Telekom Malaysia Berhad. The former believed that there had been significant progress in a more qualitative means of measurement, such as decision-making time and collaboration. The latter was very adamant about the support they are trying to give versus the surmounting hurdles they are facing. Due to the infancy stage of organizational innovation execution, there was no significant impact towards the internationalization of Telekom Malaysia Berhad where it remains predominantly running and executing traditional telecommunication type business. And as such, does not contribute anything new to Telekom Malaysia Berhad's performance.

The above findings were obtained following this researcher's conversation with selected participants from the case study. It was also obtained from non-probability

samples of organizational historical documents and website. Thus, it is open to potential biases. Data was collected from various level of management to ensure a more holistic opinion and thoughts on organizational innovation and how it was affecting Telekom Malaysia Berhad. Some were open to share their opinions in the form of frustration; as some appear to be seen as “towing the line”. This means that it is just something else they have to do and show that they support the decision made. Other data came from different sources other than the interviews.

The process that Telekom Malaysia Berhad is going through is not unique, especially in the adoption of agile in their organizational innovation execution. Other organizations are going through it in the past, and one extreme example is the military organization (CHANGE 1999). Change (1999) mooted that there is a failure rate in executing change in an organization. The failure rate is considerably high, that is, thirty to seventy percent, which is due to the actors within the organization who were not willing to change. However, one major difference that occurred in the case studied by Change (1999) was the lower echelon was allowed to react and or act upon potential opportunities that arise from the execution of agile in its organizational innovation. There was no evidence to show that the lower echelon of Telekom Malaysia Berhad was given the opportunity other than a technological platform to potentially communicate their thoughts and ideas.

It is also worthwhile to note that Telekom Malaysia Berhad has twenty-six thousand employees that have a senior management team needed to balance between social and economic returns to its major shareholders. Thus, making the level of change in the organization a major challenge. This is especially so with the fast-paced environment that all levels of organizations are facing today. The ability and capability to adopt, adapt, improvise, or exploit potential opportunities need to be more than the need to change that is forced unto the organization (Revans, 1983). In order to allow this continuous organizational innovation to take place, a model that is also ever-changing is required. This could be an area that future research could look into by bringing in more multidimensional studies in executing innovation in an organization. This study has initiated this move by coming up with a definition that encompasses the ever-growing cyclical need to change. This study has also argued that the centre of all change revolves around the individual(s) of the organization with different influx

of mindset, and especially with the millennials, the systems need to be de-systemized to allow individual(s) to exploit and take advantage of opportunities.

6.2 Closing the Loop

From a simplified point of view, the answers to the research questions set on the onset are as follows:

What is organizational innovation?

From the systematic literature review; “Organizational innovation brings together a cyclical iterative process that involves strategizing, planning, rapid-prototyping, problem-solving and improvising the adaption and adoption of new and novel ideas that will ultimately bring positive change in the form of tangible and intangible return on investment to the organization; hence, ensuring continuous growth”.

What is the relationship between organizational innovation and privatization? Is privatization a form/aspect of organizational innovation?

Privatization is a form and an aspect of organizational innovation.

This is based on the aspects of organizational innovation (the changes in structure (organizational and ownership), the change in leadership, the change in work culture and the changes in process and policies).

These key changes are exactly the same as the required changes in the intent and act of privatization.

What is the relationship between technological innovation and digitization and digitalization? Is technological innovation a form/aspect of digitization and digitalization? Or is it visa-versa? Or is it the same?

From the data obtained, it could be surmised that digitization and digitalization are the mechanism or approach used/adopted to achieve technological innovation.

Technological innovation was a critical necessity for Telekom Malaysia Berhad to continue to be competitive in the global market. This was clearly evident with the introduction of a new technology-based product called WEBE, and the strategic direction to be the world first convergence provider.

How does organizational innovation/privatization adoption of technological innovation/digitization and digitalization affect firm's performance?

The findings showed that digitization and digitalization mediated and supported technological innovation as Telekom Malaysia Berhad is in the transformation phase into the digital economy. Digitization and digitalization supported the technological innovation to ensure new products and services are provided by making drastic changes within the structure, work culture, leadership, processes and policies of Telekom Malaysia Berhad. Additionally, the digitization and digitalization roll out resulted in new products and services that are currently used internally to ensure better efficiency in the back, front end and most importantly customer interaction. It can be further argued that the applications developed from the digitization and digitalization can be repositioned as new technological innovation in the market. But, at the point of data collection, the initiatives of digitization and digitalization in Telekom Malaysia Berhad was in its infancy stages and only specific results, such as some resemblance of team-work, time efficiency, internal customers satisfaction, new product development, speed of product development, speed of decision-making, and a small observation on how typical rigid structure known to state-owned enterprise was slightly broken through the development of digital applications or tools.

6.3 Contribution to Knowledge

The originality of this research is associated to the development of a theoretical model that explores the relationship between organizational innovation, privatization, technological innovation and digitization & digitalization. This resulted in a contribution and originality of this thesis by determining, through empirical analysis, that by identifying the relationship between all four constructs are critical for the multi-disciplinary study of four different body of knowledge.

This thesis contributes to the research of organizational innovation by the introduction of new organizational innovation element, i.e. change. The change in work-culture, the change in leadership, the change in structure (organizational and or ownership) and the change in process and policies. The outcome of this research is, supported by the study of systems theory (Bertalanffy, 1972; Glor, 2015). Fundamentally, systems theory postulates that elements and aspects of an organization are connected,

interrelated and interdependent while being dependent on their own respective rights. By definition, systems theory “is composed of interrelated parts or elements” of an organization (Rosenzweig, 1972, page 450).

Systems theory essentially binds the different contexts that were found in three other bodies of knowledge, i.e. organizational innovation, privatization, technological innovation and digitization & digitalization that were explored in this thesis. This interrelation, connection and interdependence was the missing link that existing research has to offer. The adoption of systems theory allowed a more rounded analysis of organizational innovation, privatization, technological innovation and digitization and digitalization. More importantly, how privatization could be an aspect or a form of organizational innovation and identifying the relationship between technological innovation and digitization and digitalization.

As a result, the data suggested that there is strong resemblance that supported the initial argument where privatization is indeed an aspect and a form of organizational innovation, whilst technological innovation is an aspect and a form of digitization & digitalization. These findings are critical for future research where different bodies of knowledge can be brought together allowing a different dimension to the novelty of research and the industry.

Therefore, resulting in the primary contribution in this research, i.e. the confirmation and extension of the affirmed relationship between organizational innovation and privatization. And in this affirmed relationship created a chain-reaction that provides the basis for the affirmed relationship between technological innovation and digitization & digitalization.

From the perspective of methodological approach, this research adopted a mixture of approaches that would essentially provide a more holistic perspective in answering the research questions. Each approach, the systematic literature review and the cluster-based analysis were meant to provide a vantage point view to address the problems identified. Resulting in a more comprehensive analysis which uses both primary and secondary data from the case study in Malaysia.

This research further expands the role of the systems theory in the planning and executing of organizational innovation. Past studies have adopted a more focal based approach where problems were very specific to its context without looking at the bigger picture that may provide a different answer to the question at hand.

6.4 Contribution to Managerial Practice

Implications to Policy Makers

Policymakers should consider relooking at the composition of the Board of Directors. The Board of Directors should also include individuals that are commercially driven. The composition of the board should have specific individual(s) that can help the senior management of Telekom Malaysia Berhad in specific areas, such as commercialization, digital transformation, internationalization, product development, marketing and branding and entrepreneurship.

The other area that policymakers should consider is in the selection of Chief Executive Officer. The position of Chief Executive Officer should not be a political appointment. A political appointment will defeat the purpose of privatization and organizational innovation.

Implications to the Organization

Senior management or the C-Suite needs to realize that to make innovation work, they need to be hands-off and allow their teams to explore, learn, fail, try, and execute. Additionally, senior management/c-suites need to accept that innovation, while they consider should be structured, is not. In order to embrace chaos in achieving innovation, they themselves need to be displaced from their comfort zone. An example of such displacement is when an agile team is created, the senior management/c-suite becomes a team member reporting to (for example) a middle management or even a non-managerial individual (that is fully accountable to the teams achievements or otherwise, and that this non-managerial individual will not be penalized by the senior management or their supervisors).

6.5 Research Limitations

This study set out to answer the above reiterated four questions. However, this paper is without shortcomings. The first limitation that could be addressed in future research is the extent of the selected interviewees. While there were efforts made to secure participants from the Board of Directors, this researcher fell short. It would have been an enhanced result if the thoughts and opinions from the Board of Directors were obtained. The other set of participants future studies could consider is to have a conversation with employees that was active in the agile teams, as well as employees that opted not to participate in Telekom Malaysia Berhad's digital transformation.

The second shortcoming is to seek or find a state-owned enterprise that had recently gone through the act of privatization. Telekom Malaysia Berhad was privatized back in 1985. Therefore, to find individuals that have privy knowledge and information critical to this paper was hard-pressed (even though obtainable).

The third limitation lies in how research papers were to conduct a systematic literature review. The future systematic literature review should consider expanding the search and go beyond SCOPUS. Additionally, to also include additional search strings such as adding the UK based spelling convention of organizational, innovation, that is, to replace "z" with "s".

6.6 Future Research

It is important that the data collected gave light to the research questions set, however, there are certainly a few ideas for potential future research possibilities. There are two categories that future researches can look into. The first being directly correlated to this study. Meaning, what can be done to further extend the findings of this research. The second category is mainly looking at how to further look at research that can be more practical to the industry.

Based on the second category, the first suggestion is to also consider expanding how systems theory essentially binds aspects and elements of organizations that would reflect truer or more real-life conditions of organizations. The general systems theory is essential in bringing together different disciplines that will allow and ensure more

practical and more real-world industry-related dimensions. Additional to the general system theory, chaos theory would also bring a more real-world element to research. The inclusion of chaos theory is echoed by the growing attention given in academia. As the cliché goes, the only constant thing is change. This being said, a real-world organization would require a multi-disciplinary approach in the study. The rationale behind this argument is that an organisation does not comprise of just one element. It is a combination of different elements and the different aspects of organisational innovation have proven this.

In the area of organisational performance, a more temporal period is required to see how identified problems are solved and how the solution contributed to both non-financial and financial returns of the firm.

Similar research in the future should also include the Board of Directors as participants to allow another level of perspective and opinions. This will allow a richer finding as the Board of Directors should be able to give their views on organizational innovation from a governance perspective.

Ironically, by focussing on the second category of potential future research, indirectly addresses potential future research to extend the theories of organisational innovation. But more specifically from the findings of this research, future research could look into how the size of the organisation can be related with organisational innovation, coupled with the theory of empowerment and decentralised decision making. Another interesting area that could be looked into is the area of bootlegging and corporate entrepreneurship and how a bottom-up approach could create disruptive innovation within organisational innovation.

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APPENDIX

Appendix 1: Compiled definitions of organisational innovation

1965	Thompson	The generation, acceptance and implementation of new ideas, processes, products and services
1975	Williamson	Pertains to the changes in organisational forms and refinements in organisational procedures
1984	Fariborz Damanpour and William M. Evan	An organisational innovation was defined as the implementation of an internally generated or a borrowed idea - whether pertaining to a product, device, system, process, policy, programme, or service- that was new to the organisation at the time of adoption.
1996	Fariborz Damanpour	<p>The adoption of an idea or behaviour (a process that includes the generation, development, and implementation of new ideas or behaviours) new to the adopting organisation</p> <p>It is a means of changing an organisation, either as a response to changes in the external environment or as a pre-emptive action to influence the environment.</p> <p>It encompasses a range of types, including new products or services, new process technologies, new organisational structures or administrative systems, or new plans or programmes pertaining to organisational members.</p>
2001	Enquist et. Al.	New ways to organize business activities such as production or R&D, and innovations that have to do with the organisation of human resources
2005	European Commission / The OSLO	<p>Organisational innovation in the firm includes:</p> <ul style="list-style-type: none"> – the introduction of significantly changed organisational structures;

	Innovation Handbook	<ul style="list-style-type: none"> – the implementation of advanced management techniques; – the implementation of new or substantially changed corporate strategic orientations. <p>In principle, organisational change counts as innovation only if there is a measurable change in output, such as increased productivity or sales.</p>
2005	Sanidas	<p>Innovations that refer to disembodied technology such as unpatented know-how, property rights, and management and organisation</p> <p>They are new, novel organisational entities, which can be an industry structure, a firm structure, a production form or process, or an institution in general.</p>
2006	Víctor J. García-Morales, Francisco J. Llorens-Montes, Antonio J. Verdú-Jover,	<p>The process of proposing/adopting/developing/implementing a new idea (related to a product/process/policy/practice/behaviour/programme/service) generated internally or taken from outside</p> <p>Organisational innovation is a key dimension of an entrepreneurial orientation (Drucker, 1985; Ireland et al., 2001; Miller and Friesen, 1982).</p> <p><i>In some papers on entrepreneurship, it would be quite possible to replace the word “entrepreneurship” with “innovation” without challenging the interest of the work.</i></p> <p>Innovation is how the entrepreneur creates new wealth-producing resources or endows existing resources with enhanced potential for creating wealth (Drucker, 1985).</p>

2007	Lale Gumusluoglu, Arzu Ilsev	<p>Organisational innovation is the creation of valuable and useful new products/services within an organisational context</p> <p>Accordingly, organisational innovation is the tendency of the organisation to develop new or improved products/services and its success in bringing those products/services to the market.</p>
2008	Víctor J. García-Morales, Fernando Matías-Reche, Nuria Hurtado-Torres,	<p>A new idea, method, or device. The act of creating a new product or process. The act includes invention as well as the work required to bring an idea or concept into final form.</p>
2009	Fariborz Damanpour, Richard M. Walker and Claudia N. Avellaneda	<p>The development and or use of new ideas or behaviours</p> <p>A new idea can pertain to a new product, service, market, operational and administrative structures, processes and systems.</p>
2011	Felice Williams and Roseanne J Foti	<p>The intentional introduction and application within a job, work team or organisation of ideas, processes, products or procedures which are new to that job, work team or organisation and which are designed to benefit the job, the work team or the organisation</p> <p>Organisational innovations may range from being relatively minor to being of great significance and might be implemented in the space of an hour or over several years.</p> <p>The idea of a creativity economy represents a paradigmatic</p>

		change for organisations where the focus of competition will be mainly on creativity, imagination, and innovation.
2011	Gurhan Gunday, Gunduz Ulusoy, Kemal Kilic and Lutfihak Alphan	<p>The process of equipping in new, improved capabilities or increased utility</p> <p>An organisational innovation is the implementation of a new organisational method in the firm's business practices, workplace organisation or external relations.</p>
2011	Fariborz Damanpour and Deepa Aravind	The generation (development) or adoption(use) of new ideas or behaviours
2012	Sonny Ariss and Vafa Saboori	Organisational innovation is associated with the improvement which is crucial to creating and maintaining a firm's competitive advantage
2012	Fernando Sousa, Ileana Monteiro and António Juan Briones Peñalver	<p>Organisational innovation is a social, spatially embedded, interactive learning process that cannot be understood independently of its institutional and cultural.</p> <p>Innovation has also been the specific tool of entrepreneurs by which they understand the environment and identify the opportunity for a different business or a new combination of existing organisations.</p>
2013	Angel L. Merono-Cerdan & Carolina Lopez-Nicolas	The implementation of a new organisational method in the firm's business practices, workplace organisation, or external relations
2015	Zhen He, Yujia Deng, Min Zhang,	The creation or adoption of new ideas, knowledge, skills, and methods that can create value and improve the competitiveness of organisations

	Xingxing Zu & Jiju Antony	
2017	Angel L. Merono- Cerdan & Carolina Lopez- Nicolas	The key to thriving in an increasingly dynamic and global economy, a critical output for companies, a source of value, an indicator for the intrafirm diffusion of different organisational practices

APPENDIX 2: Table of Determinants of Organisational Innovation

Authors	Determinant
(Kraiczy, Hack, & Kellermanns, 2015a)	<p>Even though this study looked at the perspective of a family business, it still holds merit in terms of the determinants proposed, i.e.:</p> <ul style="list-style-type: none"> - Individual disposition - Preference of executives - Family ownership structure - Family management - Family control - Risk-taking behaviour
(Subramanian & Nilakanta, 1996)	<ul style="list-style-type: none"> - Consistency of innovative behaviour over time - Organisation size - Degree of centralisation The location of the decision-making authority - Degree of formalization This refers to the availability of pre-described job descriptions, policies and procedures for staff's - Resource slack The availability to surplus or extra resources that are available to be used for prototyping or experimenting on innovation - Degree of specialisation This refers to the availability of staff that has specific skill sets in several

	functional units/departments within the organisation
(Montalvo, 2006)	<ul style="list-style-type: none"> - Innovative behaviour - Institutional arrangements - Entrepreneurial risk behaviour - Economic opportunities - Organisational learning - Technological capabilities - Organisational capabilities
(Wan et al., 2005)	<ul style="list-style-type: none"> - Decentralized structure - Presence of organisational resource - A belief that innovation is important - Willingness to take risks - Willingness to exchange ideas - Communications channels
(Frambach & Schillewaert, 1999)	<ul style="list-style-type: none"> - Perceived innovation characteristics - Adopter characteristics - Supplier marketing activity - Social Network - Environmental influence - Organisational facilitators - Personal innovativeness - Social influence
(Read, 2000)	<ul style="list-style-type: none"> - Management Support for an innovative culture - Customer/market focus - Communication/networking – internal and external

	<ul style="list-style-type: none"> - Human resource strategies that emphasize on innovation - Team and teamwork - Knowledge management, development and out-sourcing - Leadership - Creative development - Strategic posture - Flexible structures - Continuous improvement - Technology Adoption
(Xie et al., 2017)	<ul style="list-style-type: none"> - Firms internal capabilities - Government policies - Collaboration mechanism
(zsomer, Calantone, & Di Bonetto, 1997)	<ul style="list-style-type: none"> - Organisational structure - Environmental uncertainty - Environmental hostility

APPENDIX 3: The Innovation Value Chain:
An integrated Flow (Hansen & Birkinshaw, 2007)



In-house	Cross-Pollination	External	Selection	Development	Spread
Creation within the unit	Collaboration across units	Collaboration with parties outside the firm	Screening and initial funding	Prototyping	Dissemination across organisation/industry

Key Questions	Do people in our unit create good ideas on their own?	Do we create good ideas by working across the company?	Do we source enough good ideas from outside the firm?	Are we good at screening and funding new ideas?	Are we good at turning ideas into viable products, businesses, and best practices?	Are we good at diffusing developed ideas across the company and industry?
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Key Performance	Number of high-quality	Number of high-quality	Number of high-quality	Percentage of all	Percentage of funded	Percentage of penetration in desired
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Indicators	quality ideas generated within a unit.	ideas generated across units	ideas generated from outside the firm.	ideas generated that end up being selected and funded	ideas that lead to revenues; number of months to the first sale.	markets, channels, customer groups; number of months to full diffusion
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APPENDIX 4: Measurement of Organisational Innovation

Period	Means of Measurements
<p>1998 – 2011</p> <p>(Armbruster, Bikfalvi, Kinkel, & Lay, 2008; Reid & Roberts, 2011; Tang, 1998)</p>	<p>The focus during the early years of the study on measuring organisational innovation seems to be more of taking an inventory of how organisational innovation can be measured by using nine scales of measure. These nine scales of measures appear to be similar to the determinants of organisational innovation, but none the less was used to also measure organisational innovation. The nine scales of measures are:</p> <ul style="list-style-type: none"> - Leadership - Support - Tasks - Behaviour - Integration - Project raising - Project doing - Knowledge and skills - Information and communication <p>This moved on to look at organisational innovation measurements in terms of technological vision where the following means of measurements were proposed:</p> <ul style="list-style-type: none"> - Technological benefits - Technological Efficiency - Technological Magnetism - Technological Specificity - Infrastructure clarity
<p>2012</p> <p>(Patanakul, Chen, & Lynn, 2012; Spanjol,</p>	<p>An article discussed measuring organisational innovation from the perspective of measuring strategic orientations. More specifically, on strategic orientation and product innovation relationship, which the author proposed that the measurement</p>

<p>Mühlmeier, & Tomczak, 2012)</p>	<p>should cover the direct, indirect, total and specific perspective of strategic orientation.</p> <p>The author also proposed that to measure the outcomes of organisational innovation by looking and understanding whether organisational innovation is a breakthrough or incremental.</p> <p>In the same year, it was also identified that organisational innovation could be measured by looking at the following, i.e.</p> <ul style="list-style-type: none"> - Development Cost - Development Period - Development Speed - And Overall Product Success
<p>2013 (Caird, Hallett, & Potter, 2013)</p>	<p>There was one study that was produced that discussed using a specific tool called Open2-Innovation Tool. This is a tool that focusses on measuring the performance rating of organisational innovation.</p>
<p>2014 (Boh, Evaristo, & Ouderkirk, 2014; C. C. J. Cheng & Huizingh, E K R E, 2014; Nelson, Earle, Howard-Grenville, Haack, & Young, 2014)</p>	<p>While one study considered open innovation, another discussed specific areas such as innovation diffusion. The third study looked at inventors. The means of measurements discussed on Open innovation activities, i.e.:</p> <ul style="list-style-type: none"> - Outside-in activity - Inside-out activity - Coupled activity - Innovation performance <ul style="list-style-type: none"> o New product or services innovativeness o New product or services success o Customer performance o Financial performance <p>In organisational innovation diffusion, the authors looked at diffusion markers such as:</p> <ul style="list-style-type: none"> - Keywords

	<ul style="list-style-type: none"> - Database index terms - Domain expert assessment <p>Finally, in the third study, the means of measurements reflected the following:</p> <ul style="list-style-type: none"> - The number of inventions generated - Impact on technical domain - Career success.
<p>2015</p> <p>(Kawakami, Barczak, & Durmuşoğlu, 2015; Reid & Roberts, 2011; Reid & De Brentani, 2015)</p>	<p>There were three studies in 2015 that discussed how organisational innovation could be measured.</p> <p>One considered how technology vision at the early stage of innovation could be further expended in terms of how it can be used to measure organisational innovation and the other study revolved around how the adoption or usage of technology tools or platforms are used to facilitate organisational innovation.</p> <p>Finally, a study researched on organisational innovation measurement from the perspective of divergent thinking. It is argued that encouraging ideas, encouraging diversity and moving from non-divergent to convergent thinking can be used to measure organisational innovation.</p>
<p>2016</p> <p>(Birdi, Leach, & Magadley, 2016; Janssen, Castaldi, & Alexiev, 2016)</p>	<p>One study proposed that within the service industry, it is very important to study how ideas are translated from ideas to implementation. The author also argued that it is critical to also consider innovative work behaviour (patent submission and real-time idea submission), industrial capabilities (creativity skills, job expertise, operational skills, motivation and contextual knowledge) and environmental features (job control and department support for innovation).</p>

	Another study proposed that the number of ideas from external should be included as a means to measure organisational innovation.
2017 (Sommer, Heidenreich, & Handrich, 2017)	It was proposed that the brand or perception of how innovative an organisation needs to be measured as well as it will be a determining factor to attract innovative talent.

Appendix 5: Compiled Theories on Organisational Innovation

Theory	Description	In relevance to
User-oriented product innovation theory	Also known as “need pull” or information about user needs in the development of a new product or service (Holt, 1987)	The study took place in better understanding user requirements in innovation and how it has practical applications (Holt, 1987)
The theory of the firm and industrial organisation	This theory discusses the fundamental issues revolving around the existence of the firm, the gap that exists between firms and market in relevance to size and out of the firm, the structure of a firm (for example, decentralized, centralized, policy, organisational chart and alike) and the diversity of a firm in affecting the performance of a firm (Macher & Richman, 2008)	This was discussed based on addressing innovation management in a multi-technology organisation (Granstrand & Sjölander, 1990)
Process Innovation theory	This is not to be confused with innovation process as process innovation discussed novel approached of coming up with new processes directly derived from coming up with a new product or service that requires a new process to achieve it.	To how organisations differ in dealing with market forces by looking at how to create resource through a learning process (Amendola & Gaffard, 1994) To explore how the innovation process depends on learning by doing, by using and interacting (DUI) mode of innovation

		including activities such as technology adaptation and the use of external firm sources (Trott & Simms, 2017)
Kirton's adaption innovation theory	A theory of organisational behaviour, rather than an intra-individual theory of psychological process	To better understand Kirton's theory (Mudd, 1995)
Resource-based theory	<p>The resource-based view or RBV discusses a mechanism to determine the available resources that is strategic to the growth of a firm. RBV also discusses how such strategic available resource can be used to enhance or create a new competitive edge.</p> <p>By definition, RBV is "firm resources include all assets, capabilities, organisational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness" (Barney, 1991)</p>	<p>The empowerment of employees as corporate entrepreneurs (Sundbo, 1996)</p> <p>To investigate theoretically and empirically how a perceived innovative culture can be a building block for a firm's competitive resource and advantage by creating superior employee-level outcomes and how a market information-sharing process may moderate these effects (Wei et al., 2013)</p>

<p>Behavioural theory</p> <p>Institutional theory</p>	<p>The behavioural theory claimed that while start-ups and smaller companies are driven by entrepreneurs or entrepreneurial like behaviour, large companies do not share the same attributes. This theory attempts to predict specific behaviour relating to price, output and resource allocation decisions. This theory also highlights the decision-making process (Cyert & March, 1963).</p> <p>Institutional theory has two prevailing trends, i.e. old institutionalism and new institutionalism. New institutionalism argues that the cultural and cognitive aspects of both societal and organisation impacts how decision making needs to be made (Scott, 1995)</p>	<p>In the authors attempt to compare between the take-up rate of adopting or creating by looking at how reference groups are created (Massini, Lewin, & Greve, 2005)</p>
<p>The C-K theory</p>	<p>The interaction and co-evolution of concepts and knowledge is the main engine through which design progresses.</p>	<p>The authors proposed to use the C-K theory to better understand co-innovation or the up and coming exploratory partnership in an innovation community (Gillier, Piat, Roussel, & Truchot, 2010)</p>

The upper echelon theory	Upper Echelons Theory states that top management team (TMT) members' characteristics, including past experiences, values, and personalities, affect how they make strategic and organisational decisions (Herman & Smith, 2015)	This study was done in relevance to how the top management team's characteristics affect a firm's strategic innovation orientation, and how this relates to innovation outcomes and firm performance (Talke et al., 2011)
Situating learning theory	This theory predicts that tacit knowledge sharing will be largely prevented by "decontextualization." Therefore, increasing usage of dispersed collaboration will decrease levels of tacit knowledge-crucial to innovation and organisational performance-in the business unit.	To find out the role of mechanisms believed to allow tacit knowledge transfer in the front end of innovation (Bertels, Kleinschmidt, & Koen, 2011)
Resource-advantage theory	Resource advantage theory refers to firm size, R&D intensity, and organisational redundancy (Song et al., 2011)	To examine the conditions in which strategic planning increases or decreases the number of new product development projects and firm performance (Song et al., 2011)
The theory of inventive problem solving (TRIZ)	TRIZ or "theory of the resolution of invention-related tasks" is essentially a means to solve problems as well as analyse and forecast trends in innovation with the	To test this theory in an engineering firm (Birdi, Leach, & Magadley, 2012) To explore why the use of TRIZ is challenging from a practical perspective by looking into its

	main focus on patents (Altshuller, 1999).	acquisition and application based on practical experience (Ilevbare, Probert, & Phaal, 2013)
The real options theory	An approach to enhancing strategic flexibility in the firm	To explore the application of real options theory to innovation theory and to propose a model in which real options reasoning improves the level of product/process technological innovation (Verdu, Tamayo, & Ruiz-Moreno, 2012)
Social network theory	To understand the relationships between individuals, groups, organisations or even societies as a whole by studying the social structure of the interactions.	To investigate an indirect ties-innovation argument where organisational knowledge creation processes, including knowledge exchange and knowledge combination, are mediators and managerial ties are examined through two traditional dimensions, business ties and political ties (Shu, Page, Gao, & Jiang, 2012)
Control theory	Control theory is basically about how an organisation is either centralised or decentralised in its work environment.	To analyse the relationship between controlling organisational innovation and corporate culture by taking the perspective of management practice (Bschgens, Bausch, & Balkin, 2013) To investigate NPD programmes in terms of three perspectives: (1) the formal control mechanisms

		<p>used for managing NPD programmes - specifically SGS, which is mainly seen as a higher organisational level approach used for guiding and implementing a portfolio of NPD projects, and PM, which is a precise formal control mechanism relevant for managing specific problems at a single project level;</p> <p>(2) the immediate outcome of the application of formal controls, i.e. decision-making clarity (DMC);</p> <p>(3) degree of NPD innovativeness, a key contingency hypothesised to impact the efficacy of formal controls (Schultz et al., 2013)</p>
Organisational information processing theory	This theory discusses how communication is disseminated but more specifically, the process of how information is disseminated (Weick, 1976)	To propose and examine the antecedents and consequences of new product portfolio management (NPPM) decisions (McNally, Durmuşođlu, & Calantone, 2013)
Absorptive capacity theory	This has been defined as “a firm's ability to recognise the value of new information, assimilate it, and apply it to commercial ends” (Cohen & Levinthal, 1990)	To examined coordination antecedents to potential absorptive capacity for cross-industry innovation with partners at moderate and high distance applying case study analysis.

		<p>How to build potential absorptive capacity for distant collaboration beyond established industry boundaries to gain radical rather than incremental results</p> <p>(Enkel & Heil, 2014)</p>
Activity Theory	<p>The main intent of activity theory is to better comprehend the psychological capabilities of an individual while dismissing the 'isolated individual' by bringing in the analysis of how culture and specific technical aspects affect human actions</p> <p>(Bertelsen & Bdker, 2003)</p>	<p>To understand dynamics of the complex service innovation system and model the actions taken by different entities in telehealth service projects, in which we identified important contradictions that affect the sustainability of newly developed services (F. -. Lin & Hsieh, 2014)</p>
The classical institutional theory	<p>This theory suggests that organisational attributes, no matter whether they are control-oriented or flexibility oriented, serve two major functions: a constraining function and an enabling function.</p>	<p>To investigate how two different types of organisational attributes, i.e. controlled and flexibility-oriented impact on the product. Specifically, how flexibility oriented organisational attributes impacts product innovation increase and how control-oriented attributes impacts negatively towards product innovation (Song & Chen, 2014)</p>

<p>The static resource assumption (central to the extant debate in organisational ambidexterity literature)</p> <p>The dynamic resource management view</p> <p>Organisational learning theory</p>	<p>This is about how knowledge can be created, retained and transferred within and between organisations.</p>	<p>to explore how firms should dynamically reconfigure resource portfolios to leverage organisational ambidexterity for new product development and to bring greater conceptual clarity to the notion of balance</p> <p>To investigate the moderating effect of resource flexibility and coordination flexibility on the impacts of the two dimensions on new product development performance (Z. Wei, Yi, & Guo, 2014)</p>
<p>Resource-based view</p> <p>Organisational support theory</p>		<p>To investigate how innovation-oriented leadership and HR practices might support members of the R&D function and encourage cross-functional R&D cooperation, which enhances product programme innovativeness. Specifically, members of the R&D function who are supported in their innovation efforts through innovation-oriented leadership and HR practices should reciprocate for the support they receive by intensifying their cross-functional cooperation to achieve greater</p>

		<p>product programme innovativeness (Stock, Totzauer, & Zacharias, 2014)</p> <p>To test the interrelationships between the levels of fit, innovativeness, speed to market, and financial new product performance (Stanko, Molina-Castillo, & Harmancioglu, 2015)</p>
<p>Job engagement theory</p> <p>The theory of job design</p>		<p>To develop a framework that positions solver engagement as a key determinant of creativity in online innovation contests (Garcia Martinez, 2015)</p>
<p>Strain theory</p> <p>Social cognitive theory</p>	<p>This argues that there is a certain pressure that forces individuals to act in a specific way (Merton, 1938)</p>	<p>study whether the emergence of bootlegging behaviour is influenced by formal management practices, in particular, strategic autonomy, front-end formality, rewards, and sanctions. Additionally, we investigate the role of employees' self-efficacy related to innovation tasks at the entrepreneurial stage to explain the emergence of bootlegging (Globocnik & Salomo, 2015)</p>
<p>Institutional theory</p>		<p>This study was in relevance to patenting and the role of government (Shu, Wang, Gao, & Liu, 2015)</p>

Contingency theory	This theory proposed that there is ultimately no real way to structure an organisation other than to rely on both internal and external forces to dictate how an organisation needs to behave.	How does a firm organise and plan resource allocation for those innovation processes that do not easily fit into traditional models (Salerno, Gomes, L A D V, Da Silva, Bagno, & Freitas, S L T U, 2015)
Strategic process theory		To analyse the relationship between ambidexterity-oriented decisions and innovative ambidexterity (Kortmann, 2015)
Strategic innovation management theory		To better understand the phenomenon of innovation road mapping (what it is and what it is not) and its impact on innovation performance (Simonse, Hultink, & Buijs, 2015)
The construal level theory	This theory moots that there is a mentally driven perception of how far or distant and object or the idea is, the more distant it is and conversely vice versa. Such objects can be in the form of time (how far a time in the future is being looked into), distance (geographically), social (the distance between individuals) and hypothetical (a potential event that may or may not occur)	To investigate whether ambidextrous idea generation, defined as the capability to actively generate both incremental and radical ideas, affects new product development (NPD) success. To investigate which antecedents, foster ambidextrous idea generation (Gurtner & Reinhardt, 2016)

<p>The theory of dual</p> <p>Person-organisation fit theory</p>	<p>The ability of an individual's traits to adapt to an organisation</p>	<p>to explore the dynamics of organisational and professional commitment among scientists and engineers working in hybrid, research-focused organisations (Perry, Hunter, & Currall, 2016)</p>
<p>Self-determination theory</p> <p>Social exchange theory,</p>	<p>This is a theory of how humans are motivated that comes with the personality for psychological growth.</p>	<p>The purpose of this study is to present a conceptual analysis of the intricate relationship between organisational care and employees' (Bammens, 2016)</p>
<p>Configurational theory</p>		<p>To explore the effect of organisation risk aversion on the benefits of service innovation (Torugsa & Arundel, 2017)</p>
<p>Boundary theory</p> <p>Organisational learning theory</p> <p>Dependent Theory</p>		<p>To investigate a top-down perspective to stimulate co-development with customers (Maria Stock et al., 2017)</p>
<p>The goal commitment theory</p>		<p>To explore the difference in individual innovation performance and individual innovators to the firm's innovation efforts (Bettencourt, Bond, Cole, & Houston, 2017)</p>
<p>Alignment theory</p>		<p>To explore the effects of aligning knowledge assets on facilitating a firm's ability to pursue</p>

		<p>ambidexterity, which is defined as the simultaneous pursuit of explorative and exploitative innovation strategies. We also explore the relative influence of organisational and human capital in fostering an exploitation innovation strategy on the one hand, and an exploration innovation strategy on the other (H. -. Lin, McDonough, Yang, & Wang, 2017)</p>
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Appendix 6: Compiled Theories on Organisational Innovation

Author	Year	Determinants
Aylen (Liu et al., 2016)	1996	Pragmatism / Practicality Expediency / Appropriateness
Cook and Kickpatrick (Liu et al., 2016)	1998	To ensure and allow a continuous flow of foreign direct investment
Cowan (Liu et al., 2016)	1990	Privatisation occurred due to: <ul style="list-style-type: none"> - a growing deficit in the budget (arguable came about from the creation of the state-owned enterprise and how much the Government is supporting the state-owned enterprise in the first place) - the expectation of generating incomes from the sale of public assets - the need to keep taxes rates low - the growing concern of the rapid growth of the size of the public sector - the growing dissatisfaction of the output and outcome of the state-owned enterprise.
Clarke and Cull	2002	Focused on political reasons, i.e.: <ul style="list-style-type: none"> - Deficits - Federal transfers - Political affiliations
Mizutami and Uranishi	2010	<ul style="list-style-type: none"> - Market conditions / forces - Regulations
Spranger	2011	<ul style="list-style-type: none"> - The size of the firm - The productivity of the employees

- **The average wages of the employees
(this is more of a purchasing power
issue)**
- Roberts and Saeed 2012 - **Economic forces/factors**
 - Political
 - Institutional

APPENDIX 7: Compiled Keywords from Complimentary Interview Sessions

Question 1	Keywords / Phrases
<p>Prior to the privatisation of Jabatan Telekom Malaysia, why do you think that the owners at the time, i.e. the Government, wanted to make radical changes within the organisation?</p>	<p>Expand business portfolios to ensure that the organisation is able to meet customers' requirements</p> <p>Improve service delivery</p> <p>Introducing private sector competitive culture and mindset</p> <p>Improve productivity - doing more with fewer people</p> <p>To have better productivity</p> <p>Could not respond effectively to the demand for services because its decision-making processes were hampered by prevailing government procedures and regulations</p> <p>Focus on governing</p> <p>To reduce the financial burden and administration responsibilities</p> <p>To encourage competition</p> <p>To enhance efficiency</p> <p>To increase productivity</p> <p>To accelerate economic growth through entrepreneurship and public investment</p> <p>To reduce bureaucracy</p> <p>To introduce improvements and innovation in its efforts</p> <p>To attract investment</p> <p>Change in terms of culture and in terms of how they work</p>
Question 2	Keywords / Phrases
	<p>To bring greater impetus to the growth of telecommunications services in Malaysia.</p>

Ambitious and more aggressive **development programmes strained its finances.**

Change in structure is **to ensure the change in leadership**, change in structure **to work out the change in policies.**

Obviously, to change from a cost centre to a profit centre and then in the middle, there were also **regulatory changes** where there was deregulation **to allow competition.**

So, **it can be market and customers driven instead of remained as a government department.**

By corporatizing it and later listing the shares on the stock exchange, **it will enable the public and institutional shareholders to own shares in profitable business.**

Why was it critical to relook at the change of ownership structure of Jabatan Telekom Malaysia?

The perception was, under corporatization, **business direction, and implementation will be more effective and impactful. Less bureaucracy as a business entity is crucial for success.**

Telecommunications has come to a stage that it is a basic **necessity for our daily lives, our businesses and all economic activities.** To corporatise Syarikat Telekom Malaysia (STM), there needed to be some **critical changes.** These changes can be broken down into two major areas of changes. The first is a **physical change.** This refers to **the change in organisational management, financial management, quality, logistic and related.** The second is more of a mental and **cultural change.** The latter is much harder as **the success of privatisation, and its processes are very dependent on the change in culture.**

The most important change is **the change in focus from a service for the Government to the service for the consumers**. The loyalty of civil servants is to the country and ruler.

The **source of income is now determined by the consumers or customers of the company**.

Job and financial security are now determined by the company or to be more specific **by the consumers**. For example, profits mean bonuses and loss means possible salary reductions.

Telekom Malaysia **can no longer behave a monopolistically manner**.

Question 3

Keywords / Phrases

To make the organisation **agile** to meet existing and future demands and this needed **to be done holistically**.

Important to **bring in leaders who can transform the entity** from a monopoly to a competitive private sector minded service provider

Accelerate investment in new telecommunications infrastructure as an enabler for economic growth

Very important for Malaysia to **develop local talent to compete at the international level**.

People need **new development, new exposure, new business tools** and arrangement, which will be much easier by business entity rather than the government.

An **urgent need to bring in the perspectives and skills of the private sector** to STM and later TM to augment the existing in-house leadership most of whom had grown up with Jabatan Telekom Malaysia within a government environment.

Why do you think that the Government wanted to change the ownership structure of Jabatan Telekom Malaysia and why was it so critical to ensure that changes take place in leadership, organisational structure, work culture, process and policies?

The transformation of Jabatan Telekom Malaysia entailed **a total revamp of the organisation, work culture, policies and processes** because what was in place at that time reflected what the central agencies in government allowed Jabatan Telekom Malaysia to do and to acquire in the way of skills and technologies.

... could not be done as long as approvals from the central government agencies were difficult and sometimes impossible to get.

The policies and processes in Jabatan Telekom Malaysia were designed with what was possible in the absence of the technologies needed to provide better services; the organisation was designed so that it

could carry out these processes and also based on organisational structures that Jabatan Telekom Malaysia was allowed to have.

Customer service needs to be addressed, and the **quality of service** needs to be monitored.

Work culture in the private sector is based on managing and not administering. This means that the **burden of responsibility falls on an individual. In the Government, this burden of responsibility falls on the office rather than the person.**

Mental change is continuous / perpetual and is very hard to measure. Meantime, physical changes can be measured by **organisational performance** such as financial, productivity and quality of service.

Question 4

Keywords / Phrases

Reduced operating costs and unlocking values in the organisation

Need to improve efficiency and service quality

Need to accelerate investment in new infrastructure

Need to increase the penetration rate

Need to reduce the size of civil service

Need to raise funds from IPO to finance other initiatives

Need to provide more investment opportunities to public and institutional investors and develop the equity capital market

From the utility provider perspective, Jabatan Telekom was the only entity with an equipped local and international flavour. The opportunity for expansion is greater. The people were talented at managing the business.

<p>What do you think were the key determining factors that lead to the Government to privatizing Jabatan Telekom Malaysia?</p>	<p>To reduce the financial burden and administration responsibilities</p> <p>To encourage competition</p> <p>To enhance efficiency</p> <p>To increase productivity</p> <p>To accelerate economic growth through entrepreneurship and public investment</p> <p>To reduce bureaucracy</p> <p>The need for high investment in a short period of time to improve the nation's communication system</p>
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Question 5**Keywords / Phrases**

Stay the course and constant communications.

For any transformation to work effectively, it is important for the **objectives and benefits to be clear at the onset.**

To transform from a cost centre to a profit centre need to be done very carefully. There were **inputs and output (customers) readily available.**

Why do you think these factors were critical to the success of the transformation?

The bottom line was **to fix the mismatch between market needs and the capabilities of the services' supplier.**

Telecommunication has become a national strategic service as it is not only for the pure use of connecting individuals and corporate's but to also connect Malaysia to other Nations.

Telecommunications has come to a stage that it is a **basic necessity** for our daily lives, our businesses and all economic activities.

To corporatize Syarikat Telekom Malaysia (STM), **there needed to be some critical changes.**

Question 6**Keywords / Phrases**

Other than the change of ownership, what, in your opinion, were potentially other key criteria's that lead to the privatisation of Jabatan Telekom Malaysia?

Creating values for the shareholders Malaysian had achieved to a level where they can compete at the international level. **The culture change was not an issue at the beginning of the transformation.**

The worldwide trend at that time to liberalise the telecommunications market and bring in the competition was another important influence on the government's decision. **Investors and business-persons were making increasingly loud demands**

to be allowed to enter in what was perceived to be the lucrative telecommunications market in Malaysia. Foreign telecommunications operators were also eyeing to get into the Malaysian market for both its domestic and international businesses.

As Jabatan Telekom Malaysia **played the dual role of the operator and regulator** at that time, the first step was **to separate the two functions.** The next step was **to get the telecommunications business operator (at that time STM and later TM) on its feet before opening the Malaysian market to competition.** It was imperative to **strengthen the dominant service operator** before bringing in competition to ensure that services to the non-profitable areas of the country could be provided. Bringing in competition too early would jeopardise this responsibility for universal service because investments would then be focused mainly on profitable sectors of the market.

Telecommunication has become **a national strategic service** as it is not only for the pure use of connecting individuals and corporate's but to also connect Malaysia to other Nations.

Telecommunications has come to a stage that it is a **basic necessity for our daily lives, our businesses and all economic activities.** To corporatise Syarikat Telekom Malaysia (STM), **there needed to be some critical changes.**

Technology. **To bring in new technology and to best adopt the technology. The private sector is best at doing this** compared to the Government.

Red tapes. **The private sector has fewer red tapes which makes the decision much faster.**

Appendix 8: List of Papers used in the systematic literature review

Collecting Robert G. Cooper's Articles as Author or Co-Author From The Journal of Product Innovation Management 1984–2016. 2017. *Journal of Product Innovation Management*, **34**(3), pp. 384-386.

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Appendix 9: Transcribes from Interviews

Transcription 1

Note: The participant also answered the question prepared in the semi – structured interview questions given, and an interview also took place.

What specifically is your role in Telekom Malaysia Berhad?	Setting the direction o the company as well overseeing the regulatory and legal matters of the group
What are your past experiences?	Operations and statutory
How Deeply involved are you in Telekom Malaysia’s organizational innovation initiatives?	Involved in setting the digital direction (figure 1)
How important is organizational innovation within Telekom Malaysia and where has organizational innovation been most effective in the continued transformation of Telekom Malaysia?	<p>Very important for the organization to achieve its aspiration and target as convergence champion. SO much so, it is one of the underlying principles of TM's group wide strategy.</p> <p>It goes hand in hand with productivity and as part of continuous improvement, we also need to innovate our product, solutions, process, technology, business model and etc to achieve higher efficiency</p> <p>By having it at group level, cluster are embedding innovation and productivity in their daily operations and initiaitved. Eg. Agile, Continuous improvement and innovation (CII), RE, Northgate etc</p>
How impactful has organizational innovation been Telekom Malaysia and where have you seen the most affective positive change?	<p>There are many instances recently with digital disrupting the industry. TM also have done some innovation to stay ahead. For example, unifi mobile (webe) was the first fully digital operator in Malaysia ehen it entered the market, which continues to innovate early of the year by liberating conumers on their mobile plan. HERO is an application that aims</p>

	to empower the whole organization as ambassadors to help customers. It provides an easy platform to the staff to log customers challenges which will be attended swiftly by HERO support team.
What programs are in place to execute organizational innovation in Telekom Malaysia?	(Note: please check Figures 2 and 3) Setting up an innovation council withing TM, called JEDI (Jemaah Digital - the council of innovation) - started a year ago. The main objective is to look at how to the digitization of the processes an policies within TM.
How has organization innovation affected the decision to bring Telekom Malaysia into the global market?	Global innovation arises mainly from two instances, i.e. (1) TM internal requirements. Innovation of business models and global partners and the use of efficient technology to drive cost down for the group. For eg. Bluetel and SDN rollout at sumarine cable system (2) Global business sustainability. This drices the team to create beyond connectivity products. Eg. VAPOR (value added partner operating regionally) which idenfifies and appoint select regional partners to market beyond conectivity products suc a VODOKE (hotel infotainment solution with cloud CDN), SWAG (hardware and cloud based solution to bond internet traffic for higher connectivity speed) and etc.
What is challenging about your role and how do you tackle such challenges in executing organization innovation?	Challenges for the companu is more on how to move all 27000 swiftly towards digitization. TM employs agile way of working and streamlining of divisions to be aligned under GDC for greater impact.
How is your role supporting or hindering	It helps a lot, as group strategy, are the one that formulate strategy and drives / steer the organization direction in many platforms.

you in executing organization innovation?	
How do you think innovation strategies within Telekom Malaysia is performing?	Progressing well as we have seen positive results. TM's current focus is moving from traditional telco to a digital as standalone second core. (look at figure 4). Whereby TM has also established a digital committee focussing on delivering new innovations towards the objective.
How is organization innovation measured in Telekom Malaysia?	There is no specific measurement of innovation per say apart from the TM R&D (number of products and patents) and digital innovation which TM currently target 100 quality application by 2020. Apart from that there are many dimensios to measure te success of innovations which are embedded in clusters daily operations. Eg. Business process improvements (TOP CX, SWIFT, NS Electronic Dashboard), Cost saving (Marvel, Bubble, Skodeng, Manhole key lock)
How successful has Telekom Malaysia's global strategies?	TH global strategy still very much focus on expanding global presence to drive TM Groups's data and voice down. TO date, TM has 14 submarine cables, 5 regional office (UK, USA, Australia, Signapore and Hong Long). Data centre in Hong Kong and contact center in indonesia. On top of our presence, TM also has an affiliarecompany ACASIA which is a consotrium of incumbent regional SEA telco.

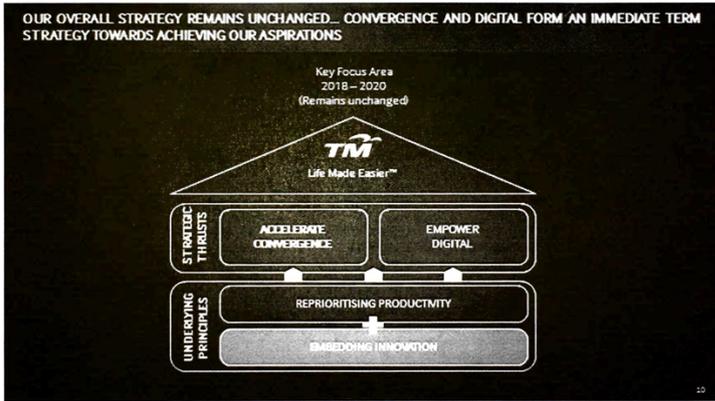


Figure 1

INNOVATION HAS LONG BEEN PRESENT WITHIN TM HOWEVER, WE HAVE TRADITIONALLY BEEN BETTER AT "TOP DOWN" INNOVATION VS "BOTTOM UP"

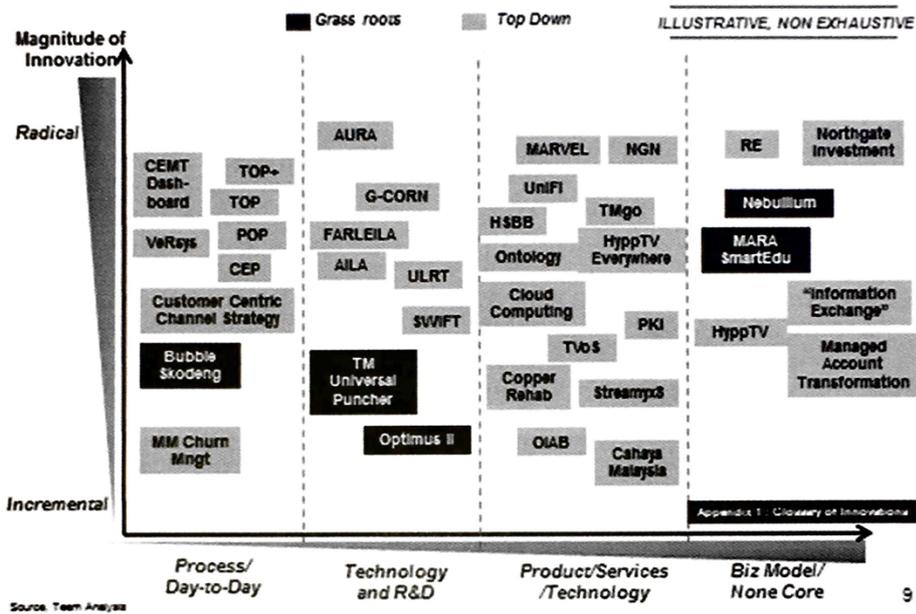


Figure 2

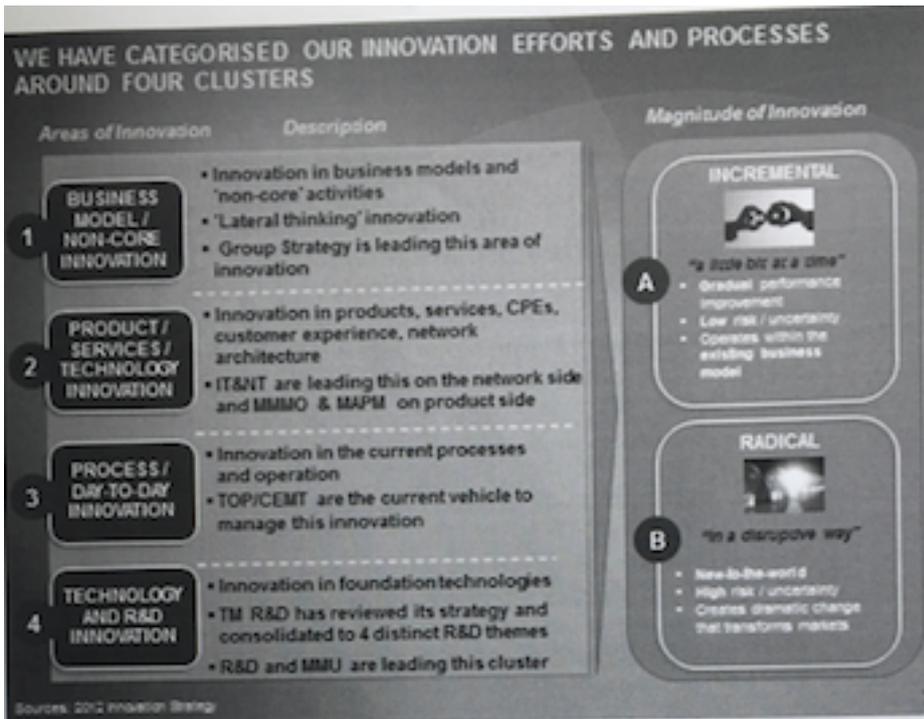


Figure 3

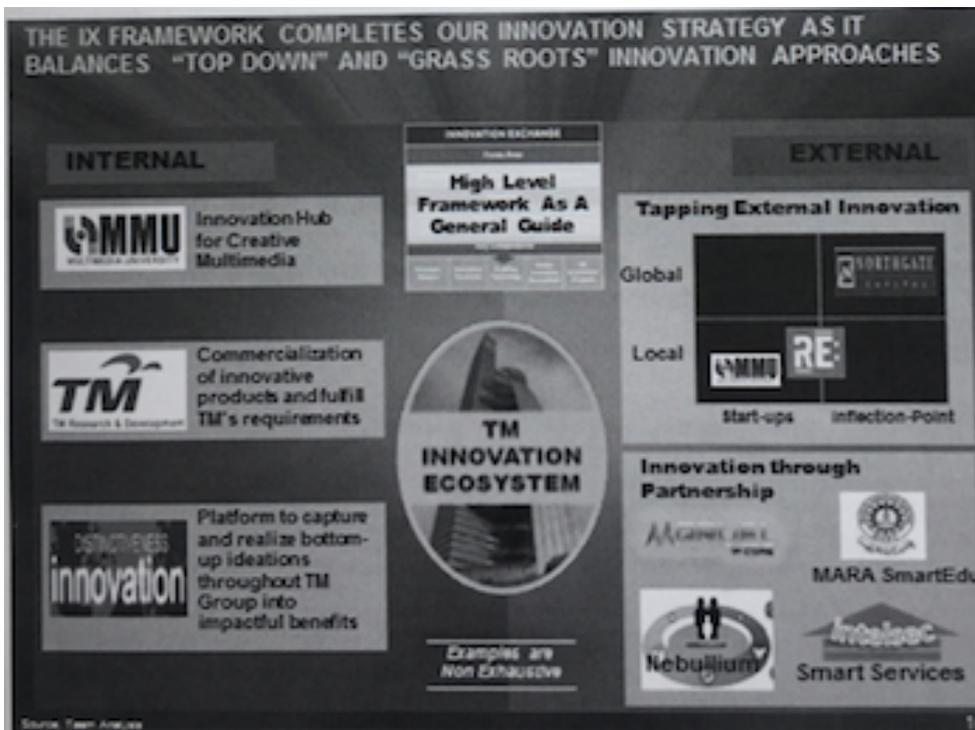


Figure 4

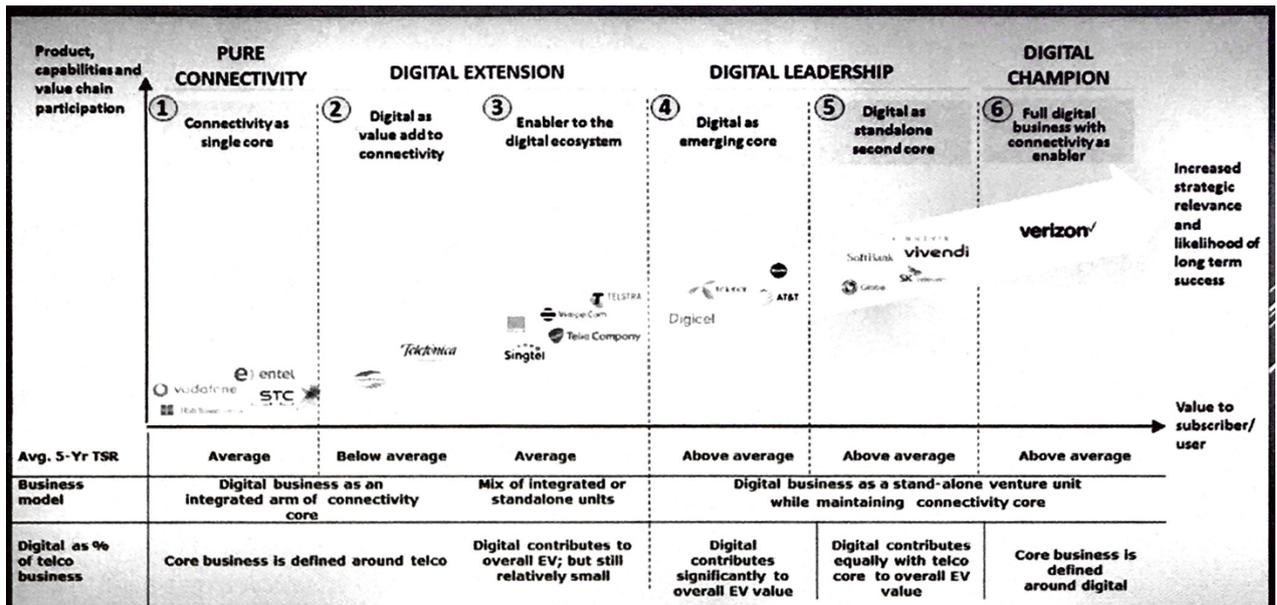


Figure 5

(face to face interview)

“jedi is more active now”

Is there several of these programs running?

“yeah ... because, we have put up our framework basically, key focus areas, I mean, for the next 2 years, one is to increase our productivity and secondly is innovation is one of our key levers under focus area on what we want to achieve. The area inside that is under JEDI, under REE. There’s also a few that is under, maybe I can give you this later. With regards to products services technology because we still carry on with our R&D. But the focus on our R&D more focused towards digitization and digitalization. Under Dr Sharlene, that is still there. And what we did was we regroup and realign back into this area of focus for that. That is on the organization. And we look at like even on the product and services that we have created, that we have launched called unifi mobile, webe, now it is called unifi mobile. Of course, a family of unifi but this is a bit innovative in nature because unifi mobile is supposedly more focused on mobile services but more on ott type of things where we can select what services do you want, what package do you want. We cut out the seller, because all

is online that the services we introduced. So those are the latest ones we are talking about”.

Do you measure teamwork?

“That sort of area we have not seen. I mean, we have not put up that as a means to measure. But we emphasize a lot more on communications. Even when we reduce the usage of whatsapp internally. We have out in house, we call it FLOW, similar to whatsapp, we are using a lot more FLOW, compared to whatsapp. This is an area of communicating internally. Back to the teamwork, we have not measured that at the moment. The current is more on how information is shared”

Does the app connect the senior management to the lower staff?

“Yes, in fact, there is one group, we call it as TM 300, that is the top 300 people in Telekom. So, all the 300 leaders, basically and even to me, possibly even the middle management, that always keeps abreast with anything that is being put up. Oh yeah, by the way, I also want to touch on, we also approach the, talking about team work, we approach challenges or issues through agile workforce. A lot more agile group, design thinking, agile, cross functional. If you look at the 17th floor, we have that sort of environment, on the agile’s approach. So basically, we have more than 20 teams already”.

Is top management involved in that?

“oh yes yes ... basically, every 2 months or 3 months, we always get the updates and we have to go through all this team to give feedback and all those things to see if it works, I should say it works well. The challenge now is to roll out nationwide because we have like 25000 people. The range from the most educated down. We started this about a year ago on this agile approach”.

Does the board get involved at that level?

“They get reports, actually. They got updates on this. Because we have this, like, even if we approach from the executing our business plans, we call it as a perfexe 10 or performance execution or the 10 commandments talking about the area of improvements and this is the agile team that is approaching into how to address it. So, the board gets updates”.

Are they supportive?

“Sure. They even know that there is something that needs to be changed in the organization basically, you know, it cannot be approached on the same always, because they are appreciating the way we wanted to move the organization. It is not going to be a traditional telco’s anymore. These are he phases we discussed at the management level and this is what we come up with as a perfexe 10”.

“Talking about the link to the board, we have committed to the board that we have kpi and there’s two areas of kpi’s that we have committed. One is the convergence. Obviously as convergence is the area that we are moving as a company, mobile, fix and as well as entertainment. The second one is, that we call, go digital. That also gets report to the board on progressively we are on that matter. They go into the detail of it and translating what is convergence and what is digital activity is all about. What is perfexe 10 is all about. Translating that into what is the benefit to the company. They love to see numbers now”.

Where do you see these changes bringing the most impact?

“I think the first one is basically, to me, is changing the people’s mindset. That is very very important because they have to understand the moving from now and then is what we have to embrace and do things differently. So I think that is the top key areas”.

How do you measure mindset change?

“That is a bit difficult, I can understand that. I think it is more on involvement and engagement. No doubt, we still have to continue with our business as usual, serving the customer, unifi, but there is a set of things we are moving to on these areas of new

things that we, business unusual, parting our new future business for that. Like I said, when we talk about tools to measure, we don't have. But it is a good idea also later on if we are to get involved in trying to measure this. But it is more about getting more people to engage on this conversation".

Do you find the team not really engaged with what is going on?

"They are more excited now but the challenge is continue doing the business as usual and business unusual"

Do you see them giving more ideas?

"Oh yeah, I think, actually the agile team, basically mainly from the young, the millennials, these are the team is the next level. I mean, for the baby boomers, is like 20% left of something like that?"

Millennials talking to baby boomers?

"The challenges is because of the current process that we have. Somehow or rather, we think of this agile is the best way to go into this because we have that current processes is embedded, current IT. The agile is the team that is picked up from various areas, units. It is a project that is being assigned. Not projects per say but the identified area where we want to improve. For example, could be like, we wanted to put a wifi solution in 10000 site in 3 months or 4 months. This are the groups that will go and figure it out. Cut out the processes that is already there. There's a few success stories that can come out from there. Those are in fact, progressing well, that is already being shared along the way. How many do we have in high rise building, how many do we want to fiber-rize within certain period of time. So these are the so call agile team. We put up the output, what is the end in mind, that is where they figure out, what is the issues internal or is it external. They address both".

Other challengers?

“We are all over the place. Our presence is everywhere. Possibly getting this to come together and as well as try to fasten the thing is quite a big challenge. Stich it all together. Link it back up to the big picture. It could also be a logistic issue because we track ones in Johor where we try to improve, bring the agile team to Johor to... if you ask the Johor team to that, they still have BAU there, so it is a bit of an operational issue on that matter. TO make it faster in terms of bringing this innovation”

How do you find the old guards adopting to these changes?

“To me its not so much of that, I mean at the moment. Its so much because we have a business to protect at the moment. They are more to that. Lets say now, my team, for example, focusing on this area, which is BAU kind of thing. This group is trying to shape this into the future business. It is not so much of complacency because to me its more on getting involved into this area because something that is still continue and have to protect that at the moment. Of course, there will be time we can shift towards that but you must remember that our core business is still connectivity. Globally networked all those things you still need to do and maintain whatever. I think that is the only area perhaps is challenging between, balancing between, trying to continue on what is the BAU and what do. Balancing is not easy to do. Some of the area that we look into can be disruptive, you know. So this trying to balance the thing. That is why we introduced 2 tracks. 1 track is to continue on the BAU because that has to continue. And there is another track that is focusing on for the next future, the next wave. So, at the end of the day it cannot be, it is a bit difficult, at the beginning it is parallel and at the end of the day, it will be joined. I think that is a big challenge. Because you want to communicate to one group of people and to another group of people and you need resource over there also and you need resource over here to do things on that. We are in the business of services, as you say, different from other industry perhaps where you can innovate immediately and start changing immediately. That is the challenge of being an incumbent. Just to share with you, we have this retreat, we figured out at the moment, we will fall into this, pure connectivity, do we want to be a digital champion or something like that, but we figured out that we cannot be that far and at the end of the day, it could be something like in between or something like that. Because we still infra still our core. Business that we have and that we need

to protect and as well as. So, we understand this. We must also remember that we are a public listed company, we are also a GLC”.

Transcription 2

Initial comments

“Innovation is interlinked between technology innovation and process innovation, because when you talk about technology, what does it mean when we adopt the technology to our current process. Process and our behavior towards delivering certain things will change accordingly. Typically, it is triggered by the technology that we adopt. Without something that we can anchor on, it is very difficult for us to change the process. More so for TM, we are a technology company, in my view, innovation typically driven by technology. So, when we adopt certain technology, we are expecting that the organization will be more efficient. What do we mean by efficient? Efficient in terms of the process that we are adopting. Efficient in terms of cost, to deliver something. All in all, it is inter-related.”

What role do you have in TM?

“I am part of ITNT organization in TM. We are the technical arm to support the business. Within the technical organization of TM, I am considered the gate between the business and also the technical. What I mean by the gate is, I am taking in the requirements, perhaps, from the product that can be translated into technical requirements for us to do technology scanning. And vice-versa. Actually, sometimes we understand the trend of the technology from the industry and we have a discussion with the other lines of business, the business organization on a potential adoption of those technologies so that it can be productized. For instance, we talk about SD When. SD WHEN define network. So, from the technology standpoint, it is an evolution from the IP, how we can achieve more efficient IP services that we can offer to the customer by improving our core structure in coming up with the product. IP means connectivity, IP based services, like the likes of, BBN and alike. My portfolio also looks into technology and innovation. We already spoke about the technology part. The innovation is about anything to do with possible improvements initiatives. It could be improvements in terms of cost. How can we reduce costs at certain areas but pretty much driven by the network? For example, we can see an increasing trend in terms of the cost in submarine cable investment. Or peering with the other parties, so then we say, is there an opportunity for us to do better by perhaps doing some kind of consolidation so that we can do some cost savings. This is also one of the area that

we consider under innovation as well. About reducing fault rate and alike, my team will actually drive and coordinate the initiatives towards that. Improvements. We look at infrastructure, network and IT.

In terms of ideas that maybe is not even in the market. Like in your daily work. For example, if we were to do it this way or tweak is this way, it will become so much better> is the like any room for that kind of innovation?

“Of course. The room is always there. In fact, during the last CEO, within ITNT we have a team called distinctive innovation. This has evolved to be continuous improvements and innovation. Whereby we are encouraged to get ideas coming from anybody within ITNT Division. And it does not matter if it comes from the strategy group or my group or people on the ground, the field team, the operation team, the network development team, at the state level and alike to come up with any idea that can do at least 2 things. (1) how can we improve our process and delivery or restoration work and (2) how then can it be translated into better cost, improve cost savings, cost optimization. So, last but not least, these two things should be translated into life made easier”.

Are you and your team involved in the overall strategy, like giving ideas on how TM can be more innovative, like things that needs to be changed?

“By organization, if you ask me, that is the idea of having my organization within ITNT and also TM. They should contribute to, you know, it is more form the technology stand point, more on innovative ideas, what kind of technology that we need to adopt moving forward. The none technology standpoint is very much from for improvement purposes. How to bring down the cost? How to improve our delivery cycle? Things like that.

Do you encourage you team to come up with ideas?

“Oh yes! I think as a leaders, everybody encourage people to do that. But not everybody is into that mode. Mainly the initiatives are driven by the leaders. When the leaders say, they want to bring down the costs, you may want to do this, why don't

you study. Another example, when we receive complaints, customer are saying that our time to deliver is very long, so how can we improve our process so that we can shorten instead when we deliver, for example, it used to be 3 months, now becomes 1.5 months. So those are the things that is triggered by the management rather than bottoms up”.

Is there no room for a bottoms up approach?

“Yes, there is. That is why we have the continuous innovation where we collect ideas, we have an idea bank actually, anybody can go to that idea bank, give some ideas, come up with a prototype, and share with, ... we even run a competition. Share your idea and if we believe it can be adopt within ITNT, for example, if the idea comes from Johor and we if we think we adopt, the impact would be bigger, so we will evaluate at a few stages. Evaluation at the state level, evaluation at the ITNT’s level. When they say, ok, this is something we want to adopt, then the next level, for process, for example, more testing is needed and then we will fund. We will fund them. We have an allocation for innovation fund, therefore we fund. For the idea to proceed, whether it is meant for further testing, run a pilot and etc. Some of the innovation, for example, as simple as TM’s jacket, currently there is no strip line for reflection for safety, a simple idea was mooted, a cheap solution to be placed on our jacket. So when it is at night, there will be light reflection to improve safety. If we see that as a good idea, we will connect with the HR people to introduce the solution to be adopted”.

Does your team interact with other units to come up with projects or ideas? Do they work with others?

“One thing, it depends on who mooted the idea. For the people on the ground, typically, they will discuss with their own circle. That is why we have this competition so that any other people but still within ITNT at this moment, can see and can improve that idea, if we believe that idea can give us a really really good impact to the company.

Does such activity contribute towards their career path?

“There is no direct correlation for career path because for the career path, apart from the idea, there are other criterias to be considered for them to be promoted to the next level. But anyone that has ideas, we would give incentives. Sometimes it is a direct reward. Anyone who wins, there are different level of incentives, State level incentives. In addition to that, for example, if we missed something but felt that the initiatives is good, even though the idea didn’t win, there is another avenue for us to incentivize, we call it GLT, Group Leadership Team Award. It is a small token”.

Do they care about the token or do they find the effort useful?

“They find it useful as it is part of, because, we want to make it into a culture, it is a management recognition. When there is a competition they will be on stage, pitch their ideas, and that alone, give them the motivation actually.

With all these initiatives, that is happening with in TM and in your group, what are the major changes or impact that you have seen from your staff? Was there any behavioral change? Was there a heighten excitement? Do you see any silo breaking?

“Excitement (semangat), is evident, but breaking the silo, we need to work harder, I would say. It is still very “klik-ish” (staying among their circle of influence / friends). It depends, certain organization the nature of job, like my division, we have to engage with people, so it is part and parcel of the job requirements, that you have no choice, that if you want to share your ideas, you have to engage with many people. So, that is by nature. But if it is not part of job, I think it is still That is why we have these things so that they come out, people will recognize him, that alone will give better exposure to the group”.

What do you think is the biggest challenge in executing or implementing organization innovation within your group?

“Energy. Consistent energy, because you know, these new things, to do needs time. So if you don’t have strong energy and passion, once you face some challenges along

the way then you will give up. But for those that is persistent, they will And for those that falter, we will engage with them and talk to them”.

Overall TM, there have been many initiatives to make changes in the organization, ... do you think it is working? Even if you cant see the results yet, but do you see it moving? Do you think that is happening?

“JEDI, something to trigger the change which is digital and digitalization initiatives.”

“In ITNT, before JEDI being set up and all that, we have kicked start our, this kind of activity, digitizing certain process so that, you know, we can repurpose our people and refocus our people to do something better. So that has been started a few years ago, actually. SO when JEDI comes into the picture, it is actually, it brings our initiatives to a bigger, to the next level”.

How do you know such initiatives are successful? For eg. Do you measure it by the number of ideas developed or do you measure it by ideas executed?

“Ideas developed is one of something that we track. The number of adoption an the impact, the number of ideas we adopt and its impact towards our organization as we are managing the cost to serve; so how does it mean to us in improving our productivity (faster in doing work, easier to do work) and cost efficiency. The adoption rate is still not as, I am not that happy with the adoption rate. Idea is aplenty, we acknowledge but the level of adoption needs to be improved. What I am saying is, sometimes the ideas coming from a certain region but to give every other region to adopt the same thing, that is also a challenge. Some more on execution”.

“Our issue is on the execution. Not the lack of ideas. Not the lack of innovation efforts and initiatives. The major issue in TM is that in Malaysia, we have different tiers, we are still very much hierarchical because to do this, it has to go down the ground, the coverage we have to do, within ITNT we have 10,600 people that we need to reach out nation-wide that has different levels of mindset and hence, different values that we need to touch and align with us. So that is what I meant by execution. Sometimes, the leaders are excited but we need to make sure that when we implement, the people on

the ground are really really excited, that is one thing, and when they are doing it, they are doing it right, as per what we want. I think that is actually what we need to face today, the challenges that we face today. We will find ways to do that, the situation is improving today, because the leaders have to go to the ground and communicate to the people in terms of our tone, language used, will be changed according to the people who we speak to. This requires effort and time. When we go to the east coast, Sabah and Sarawak, it is different. The challenge is how to communicate and make them understand why we do certain things and without losing focus on the big picture”.

Is there mechanisms or channels for the communities to voice out issues, what they need clarification on, Is there a direct channel, is there a way for them to reach out instead of being frustrated?

“In every region, there is a leaders in charge, we call it General Manager, so basically, all the communications and escalation at the state is done through that group before it gets channeled to the HQ. For my team, my preference is that I would like to hear direct from the team so quarterly, we do a survey monkey. You state the level of engagement and happiness and what we need to improve, what is good about the things you have done, about this division, what are the things we need to improve, any ideas or whatsoever, we use that platform. It is anonymous, so anybody can actually ... yes, safe. It is interesting, I just started doing it, it is interesting to hear the voice of our employees. In our annual operating plan, where we discuss about our initiatives that we want to do, so this year onwards, network, IT, there are very procedural, I mean, our job is procedural in nature. So, and then, we want to embed an element of service culture, whereby you need to some empathy and putting yourself in customers shoes when you do your work. What that means is that, not to follow SOP too much. SOP is to give you guidance. Within ITNT, this has been going on for the past 1 year. In the earlier part, there were many resistance, but if we look, there are some improvements because we use customer feedback as a means to measure our own improvements. WE have a net promoter score, i.e. whether our customer is going to promote us, and our services to other people willingly without being told to do or paid to do, that NPS is increasing. Another measure is the net user score, it is the voice of the customer. They give feedback for every touch points, for example, for assurance or fulfilment, as once we complete the job, we ask the customers and get their

feedback. How good we are and then you rate. That is also improving. So that is something that we have started, the only thing is that we do that with the field team. There are other teams we need to start touching and ... Another survey is the KHI or key happiness index, we ask the employees, how happy are you? Before the questions were too long, so now it is being simplified”.

Transcription 3

What is your role?

“Manager for campaign communication and collaboration, basically what I am doing for the past 2 and half years, I do internal communications, I do communications, the sharing of information of our products and services, specifically under unifi line of business, to our front liners which involves people from network, call centres, TM point and also TM’s stakeholders (TM’s State GM’s, State Heads. Basically those that I involved in the business of unifi’s products and services – internal stakeholders, as well as internal staff that has a direct interaction with the customers be it in the form of email, calls, face to face) and unifi’s management. I would have to share all the products and services documents, either via our internal portal, i.e. WISE or directly to them either before or at the same time of a campaign. There are so many campaigns in TM. Different campaigns runs at a different time frame, 3 months, 1 time, announcements, for example, we are the official partners for the commonwealth games, so we are sending sms’s and edm’s to our unifi’s customers about the opening ceremony, about the medals won, about the content in the channels. So all these information needs to be communicated to the front liners too, just in case, for example, you as a customer, you call unifi’s number, and asks what are the channels that is showing the commonwealth games, they, the front liners will be able to answer that based on the information that I share. There are so many communications internally, communications to staff, Staff TM, or to unifi’s staff, or to customer directly. What I do is for front liners, basically to prep them when they face the customers”.

Prior to this, are you in the communication and marketing background?

“prior to this, I am marketing and communications, but more on events and exhibitions, more on the ground events, more of going out and touch the customers directly. And also, I am providing the platform, for the sales force, to make it easier for them to meet the customers. Before that, I help with regards to the readiness of the platform for the sales people to meet the customers, for the enterprise business. Enterprise business is under managed accounts. I am under unifi now”.

How deeply involved are you in TM's organization innovation initiatives?

"Actually, I am quite involved, but not in a direct direct way. Meaning, the top 300 management, are more direct. For us, there are teams that are selected to be in the agile, convergence's team. Either I join or not, our job scope involves us in these sort of activities. Because we need to, ... the innovation in TM has to be agile. We have to be able to be multi tasks. You should be able to expand, and be creative with how you want to manage your work. So, my work is also involved too. The only thing is that there's challenges in my end as well because of the innnovation's movements".

What kind of challenges are you facing and what kind of innovation movements is happening?

"Challenges first. What is good about the process is that, these agile and convergence's processes supposed to shorten the processes. And so, gives more responsibility to individuals to move at their comfortable pace on getting the job done. But we cant forget our SOP. You have to remember that TM is an old company. It is a systematic company. We have processes. We have procedures. All the things that we do, we have to take considerations, such as legal, MCMC, and whatever, So, there are people that wants to do their work so fast that they miss our certain things. Therefore it makes this a bit negative, as it becomes a challenge to certain people. Especially to people like me, and my team that are gatekeepers where all these information, all these messages to customers, will go through our gates system, our gated process, and we are the last people to process it, before we send it to the front liners. We are the last one that will click the button to send it out. Our challenges are when too many people wants to be agile, everyone one wants to be .. meaning that there is not much hierarchy. They have short cut, cut lanes to get short cuts, and hierarchy becomes havoc. And when hierarchy becomes havoc, things will be last minute. It will be like, the process becomes messed up. O when it becomes havoc, everything becomes last minute, ad-hoc, so there will be a bottleneck at our point. So, when there is a bottleneck, in my processes, I should have all the information ready, approved and ready and final and shared with the front liners 3 to 4 days before the actual campaign happens or to be shared with customers. For example, I take the SEA Games that will take place on the 4th of April. Therefore, in fact, on the 30th of April or

29th or MARh, I should have received all information, visual, I would have received everything, the campaign order fro the product house. But due to all these ad-hoc requirements from the top management, plus there are some that wants to show off and they give new suggestions, all becomes ad-hoc, last minute. Even on the 4th of April, materials that supposed to be shared with the front-liners cant go out. Due to too many additional, too many .. it comes too havoc. It is not so organized”.

How do you manage that?

“No other way, either to, I have to release internal comm while my friend blasts it to the customers. So what people don’t see here is people at the front-liners, they are huge, they are a few hundred people, so, for the message to reach them before people starts calling is what I find challenging. So, worst case scenario, if anyone calls, they will not be able to answer it perfectly. Except, I mean, training has been done before, but still the material in the knowledge bank is not there. That is a few challenges”.

“My boss tells me, those items that does not involve tactical campaign, tactical campaign is where we will try to convert the customer from streamyx to unifi or to upsell or cross sell. WE have customers mobile, we want to convert these mobile customers to be our home customers too, for example So all these tactical campaign needs to go out much earlier. But others like announcements, it is ok if the information comes a little bit later. Because even the issue of submitting the materials come from the product house not in our control, my boss tells me, we put it in when we receive it. We have no authority to force the issue, i.e. send the materials in faster and at the end, the work is not completed. There is no other way then. That is the challenges. It is quite tiring. When the processes has been touched on, it is fine but it is not even being followed. Then it becomes hard. Then we have our family members joining in, e.g. webe,, it is very hard for them to adapt to TM’s culture and processes. For me, understandable, of course they are frustrated, for them they are doing ok. But there is a bigger parent company that you should follow. Most of our processes are fixed. The first 6 months, it I sok for you to react like that, but when you enter the 2nd year and you still acting like a kid trying to be immaturred about work then it puts pressure and becomes a challenge to us”.

But, how do you overcome those challenges?

“So, we try to come up with a few options. We try to be lenient with these people as well. WE give options on how to get things done. We try to assist them in any way that we can but not to the point where it comes to a point when we are taken advantage of on our kindness. These are the challenges that needs to be overcome. Needs to be discussed”.

How important do you think the changes that is happening in TM now and where do you think these changes or innovation that is happening in TM is most effective?

“The changes is good in TM. But, they cannot be, they have to make sure, there are still some processes that people have to follow. Changes is good, changes is happening quite smoothly in certain departments, not in certain other departments. Because I think the processes needs to be custom made based on department or division needs. You cannot make one fix changes that can be applied to all. It has to be fair to different different departments, that covers different different kind of work scope. For example, ITNT, they are network people, they are the one that installs the telecommunication towers, talking about these people, majority of them are non-executives. So their mindset, their way of seeing things are different than us that sits in the managerial level that does in the strategy or marketing type of thinking. So, there must be a way to tackle these group of people that has these kind, or similar mindset. So, it is not only about work, it is tough and the flexibility for the staff's key index happiness, and also staff's key happiness with work”.

Where do you think in all the changes that is happening in TM, where do you think which one is the best? Which area has the most affective, positive change?

“The agile thingie at the very beginning, I mean, I can say about 1 year ago, 1.5 years ago, is very messy. But people are adapting to it, a little bit by bit but I don't see the best thing yet for now. But the new CEO, he brought some good key index happiness in terms of staff's benefits and key index happiness, it comes with all the benefits that

will allow happiness to women and mothers in TM; which is the majority of staff. I can say that majority of staff are women and mothers. So, among things that the company has done for women with kids, is that we are amongst the first companies in Malaysia that has the flexibility of young mothers and pregnant women to leave an hour early than the actual working time. They also have dedicated parking for pregnant women. Mothers with kids below 15 years old gets to go home by 4 pm. Company says there will be no more late meetings for the staffs except for the 300 top management. So basically by 4 or 430 the office starts slowing down. In a way it is good. But some work will be delayed. But it is about how you want to train these people to change their mindset and work ethics that the company have allowed you to go back early, you have to work faster, you have to focus. You don't need to work for 8 hours anymore, you only work for 7 hours now but focus. That is what the company wants actually but it's not achieved yet that particular vision".

"To asked about where is the most affective is very hard to say because, I am involved a little bit in all these convergence and agile bit not directly. We impacted by it, so we have to follow, but we are not the main people that has been appointed to be the agile nyer trial. So, I cannot say. Its just that given the economic situation and whatever, at least you can see that we are still surviving compared to most ... I mean, we are surviving. The only thing is, its normal that the challenge is getting tougher and tougher, year by year but given agile and convergence, it cannot happen in 6 months. You wont see the result in 1 year. IT will take a few years, at least. And then, it is not easy to change the people's mindset especially those that is retiring, that has been in TM for the last 10 years. It I svery hard to change their mindset and their way of working".

Is there anything that is happening in the company that is trying to change these mindset?

"I can see that group communication, they do a lot of communications via email, in a very casual manner, like reminder of, you know, safe electricity and don't leave your laptop on before you leave for home. They share, all these things and tricks about how to get work done faster. Indirectly, they made it fun. They start to share products, like all these motivational stuff. They share also like achievements of your colleagues to

show that if your friend can do it, you should be proud of your friend and you can do it too. I do believe to some group age, yes, it is affecting and impacting them, but not to some uncles and aunties that “.

Do the older people talk to you and voice out their concerns?

“They don’t complain so much, but they are not, ... say, if I am talking to the non-exec people, they are not trained to give ideas and suggestions in whatever. They will follow orders. Sometimes they complain but not in a bad way but it is very hard to get anything innovative from these people. Because of age factor maybe. But if you talk to a younger group, for example, my AGM, my GM now that is about my age, they are considered young. So, they are quite innovative, but for the assistance managers and exec’s are not so much of a thinker. I wish we would have more thinker in the company rather than a do-er. That is a little bit of a challenge”.

“my cousin works for the agency that works for Yayasan TM. The feedback that I get from her is that, like when you asked about mindset, I think the Yayasan TM people needs to be more at par with other people outside there. They are very, I can say that Yayasan TM is among the few divisions that is very at the old processes. When they do work .. there is no like, they are like, if my boss is not around, work cant move. These are the workers level of mindset. There is no sense of urgency in their side. This is the kind of things that we really need to tackle because, some people, at the lower levels, they have the sense of urgency, they don’t have the responsibility of wanting to do more than they should or more than they can”.

Why do you think so, the Yayasan people are not willing to take that responsibility or ownership to make a simple decision?

“The lack of leadership is one thing. I also think it is complacent. They are complacent in their job. They are just satisfied with what they do and they think, I think, they deserve better in terms of designation or whatever, and they don’t get so, they refuse to do more than what they think they are capable. So, things like these, that makes us don’t want to do anything”.

Is there anything being done to address that particular issues?

"I don't see it yet so far because this is really my personal opinion, even if we were to say it, some people might take it and some people might see it as 'so what', so, they will ask me back, 'do you want to do more for your company when they pay you peanuts?'. Some people will think that but some people will think that the company will pay me peanuts for now but if we do more, maybe we get better profit, we get better bonus, instead of keep complaining that our bonus keeps getting smaller and smaller. Its just like, its ok, we are not paid as much as the boss, let them do the work, they still have that kind of mindset. I think we need to psychologically reach out to these people to tell the, directly or indirectly, that. ;hey guys, you have got to do more than, I mean, your capabilities, is more than what you are doing right now. It is just that you don't want to trust yourself. You don't want to respect yourself. You need to have a 'aha' moment. I am not saying everyone, but I am saying, certain people with certain background. Take me for example, there are times I am frustrated, like, I have done all this and I don't get even a 3, I keep getting a 2, always an average score. So, I will never be able to progress. Sometimes I do have that kind of ... you know ... frustration but it ok .. because different department, different boss, different environment, different expectations, different challenges. I have to say, some departments, relax babe, not working in TM, relax. By the book. Not like us. Because of our ad-hoc and last minute changes, my friend that does the coding for the blast feels stupid because I don't learn anything new. I don't practice what I learn and become and expert. But I feel like I am so stupid every week because every week there is always something new coming and we have to sort it out. It's like fire-fighting on a daily basis. So, you can see, that in TM's organization, there are a group of people that they are "lucky" that they work so peacefully ad do not have to think much because they are just a do-er. Not like u, we are the unit that contributes money to the company. We are dealing with people churning, running away to MAXIS, for example. We are the one that try to save and ensure this customers stay with TM. We are cracking our brain and mind and whatever in between, to what can we do to make people stay with us and make people use and like our products and services. Like that. Such bad attitude is what is holding us back. So like, when it is 430, its time to go home, lets go home, oh no, you called me just 5 minutes before I go back, I am packing my bag already".

What specifically is your role in TM?

“TM One is not really a subsidiary. TM One is the B2B business arm of TM. TM has B2C business arm, which is unifi, and the B2B business arm is TM One. It is not a subsidiary, it is a branding that we use to go to market so the B2B business is a TM One. What I do in TM One is I head the operations of TM One, After a particular sales have been delivered, it comes to my scope of work, where perform operations and maintenance and to ensure customer has reliable and fully managed service with TM. With TM One, in fact. After sales support, in particular, after delivery”.

How deeply involved are you in TM organization innovation initiatives?

“Today you talk about innovation in our industry, digitalizing our internal processes. I think for the past 2 or 3 years, it has been very actively pushing this idea of digitalizing our processes. They have even set up a digital council chaired by the group CEO himself. Where the new names of the sub units of this digitization. One part of innovation, of course, other part of innovation where we have our TM R&D looking into many areas of innovation. Innovation in products, innovation in processes, innovation in our tools and systems. The only change that I see in the last 1 or 2 years has been quite intense innovation in this particular area. There is a strong push for us to make a lot of processes, work processes, to support our own internal business, as well as in the b2b business, our clients are also growing very much digital and we want to be the major enabler for that. Look at the banking, they have gone really digital. Self-service banking and so on. But behind it, you need infrastructure, platforms and so on. So no more cash, its cashless transaction going on. So again, they need an enabler to make sure that this particular economy or the digital economy, digital business is enabled and TM wants to be the enabler. Look at even our b2b’s vision is clearly to be the, to enable our customers to fulfill their full digital opportunities. While internally we improve our digitization process, but when we go out there, we also want to be the key enabler.

How difficult has it been to make all this changes so that you can provide services to your clients?

“For me, the biggest challenge is speed, speed of getting things done. I think that has been our biggest challenge because the business is changing so fast that we need to change even faster. So that has been our biggest challenge, I would say.

How do you overcome that?

“How do we overcome this speed thing Good question. I think there are several things. No 1. Prioritize. Not wanting to do everything. You may want to choose which area of digitization that you want to go in to support the business. And no 2, internally I think there is a lot of priority being put by the senior management on the importance of digital. It has become a permanent agenda in our group leadership team as well. In that way they are trying to speed things up and get things to move faster”.

The biggest challenge is the people needs to change as well, do you face such problems?

“Yeah, I think, definitely definitely, yeah. Because I would say to move into this area of innovation totally, you need certain new skills, in programming, coding, the digital space where we do face challenges in our readiness of our people to embrace these new skills and new technology. So that also, has been a challenge for us”.

DO you find them worried about technology overtaking them?

“definitely, If you look at it, the end game of digitize is to automate what has been manually done, that means it will displace the real physical work that has been done by human. I think, the worry, I am not sure they really understand what is going to happen to them if they are not being able to embrace the new change but what we are fully aware is what is happening, surrounding them. When I talk about the tol booth operators who are no longer required, what has happened to the bank cashier, who are no longer required, they are fully aware about that. But I think there is also a few think that they might not be affected by this. I think at my capacity, we are always trying

to push through this particular reality into them that it is for real and the digital innovation is for real and it is directly impact all of us”.

With all these changes, how impactful these changes have been in the organization?

“Because challenges is still speed. Speed in getting things done. That is an area, if you ask me, if I want to help them in my capacity of a leader is how could I speed things up. Besides that, But similarly, we have put in this kind of changes in place, but it is a continuous thing. A never ending thing. People are wondering how can I get things done. And getting it done even without going to the post office. So, these are the continuous challenge that we, as an organization, are facing and also what the market is demanding or the customers are demanding. Customer was happy last year with our, their expectation is higher now. So again, this requires the speed of embracing things”.

“My colleagues are supportive, as a board member, they would like to see the company more profitable and with the digitization, always the bigger question is, how many resources can we reduce or optimize further. So that is the whole idea as to why the board is very supportive of this. Because they know that by us putting in more innovation, innovation digitizing, we could reduce our headcount, reduce our cost, being a GLC, that is another big factor in our business. There is always a push from the board for us to embrace this innovation so that we can manage our cost better”.

How fast do they (BOD) make decisions? Turnaround time within the council ...

“How fast, I would say, is very subjective. Personally, I think we should move even faster. Even though things are already moving and so on. But I think if you look at the business requirement, we are expected to move and make decisions even faster and move forward faster. Like I said, it is subjective, something I can’t give you a number. Coz that number could be a good number here but outside, it is a bad number”.

“it is like running up an escalator that is moving down”

How do you think your role support or hinders organization innovation?

“For me, my own challenges would be I don’t see the speed in my team executing what I want. I want them to move faster in this area of innovation. So, I mean, of course, definitely I am not happy with the current speed of things but why they are not able to deliver or execute as my aspiration or as my expectations, yeah, it still puzzles me. Unless they are not aware of the outcomeeee I have about 8000 people under me. Almost 50 60 percent of them are my BPO operations staff. The one that I really want them to move fast in this area would be about 400 to 500 of them who are doing some second level support, I would call them the techy, solving clients problems. I feel they have enough knowledge, definitely they have, but getting people to move out from their comfortable, being ... I think it is easier said than done. But how to get this person to do something new takes a totally new different kind of thinking and mindset. Sometimes it is difficult to understand why people are so comfortable doing one thing only. I find it very ahhh ...”

“I would like to know if the leaderships efforts is not enough to drive this change or what even that is the one from stopping people from changing when we themselves clearly knows that there is a better way to do things”

“could it be, what is it in for me?”

“We aspire to be the leader in innovation so it is interesting to know what actually takes people to be innovative”

What is your role in TM?

I am part of TM One organization which is basically the b2b division of TM group. And as such, I am heading the partnership and marketing of the organization. Which consists of, on one hand, helping TM One to position itself in the new era of ICT Cloud smart services while I am also positioning TM One in the traditional business like connectivity and data center and so on, managed services. That is part of the marketing part. And the partnership part is to ensure we are building the proper ecosystem for TM One to be more competitive and more innovative in the market. That is the dual role I play.

Building an ecosystem seems to be something that a lot of people want to do but how does this ecosystem connect back to other parts of TM Group?

The ecosystem in our industry is very rich. So, start from very entrepreneurial, very small, nimble kind of start-up that is looking forward to solve some specific problems and bring new value proposition. Then comes the ecosystem that deals with new technology and these are typically, many of them are already established companies. Technology companies that help builds new value propositions, new solutions to satisfy in enterprise, businesses or government or public-sector needs. Then comes an ecosystem that is more related to the delivery and operation of complex systems. The value chain is pretty, kinda broad from really innovative and small and entrepreneurial to established and technology related to delivery system integration. In TM One, we try to focus more on the last three, which is the partners that can actually help us actually bring new technologies to the markets or partners that can help us deliver and fulfil as such. Definitely, we look at the entrepreneurial once they graduate then becomes part of a ... it compliments basically what other, the rest of the group is doing.

We do work with start-ups as well if they have something very unique, very advanced and actually nobody else did on the market.

Process, in terms of onboarding these companies, does it take long for them to be brought in?

It really varies. It may take very long, like complex propositions that actually touching different back end systems or touching different product propositions, it may take ... we need to align different stake holders and if this is the right proposition, the impact on our back end system is minimum and so on. So that may take longer. It could take shorter if the scope is limited and also the opportunity in the market is very well defined and in that, it can take a shorter time. So, it varies.

How deeply involved are you in TM's organizational innovation?

"for me the contribution is always a continuous flow. Personally, I don't believe on, kind of, a process, that, you know ... basically extremely structured process that comes with, ok, now you have to contribute or now you need input and so on. Innovation goes together with creativity. So, it has to be like a continuous flow. New ideas come, you share, you validate, and you get exposure, by the way, to the top as well as the bottom.

How important is organizational innovation in TM and where has it been most affective in the continued transformation of the organization?

"When you are a dynamic market, you are more externally focused than internally focused. You will see that the world around us is changing every day. So, how can the world around you change, from a technology organization, and business model and keep going and you don't change. So, I think that change is extremely, it should be number 1 because evolving your organization to cope with the change going on around you is the number 1 survival. Because you have the best technologies, best solutions, but if your organization is not ready, especially with what is going on in the digital, it is just a recipe of failure. And change management should be part of the organization and innovation is, and every single process has to be challenged, from my point of view, every single process. With the speed that things are happening in the markets, our customers, and our customer's customers', everything needs to be continuously challenged. And revisited.

Do your peers feel the same way? Does the C-Level feel the same way? Is the BOD supportive?

I think the realization of the organization is in the sense of urgency for a number of reasons. As you know, the market is evolving, there is a clear understanding that, you know, the competition is intensifying, and things can go much much faster, in terms of potentially losing market share, or getting less relevant, or separating business, or not being able to invest in the next wave, and so on.... I think the realization is there. Also, how fast, they need to move faster is also there. The challenge is how you balance on the need to move fast with governments. And I think an organization like TM, we need to a strong governance for a number of reasons. The scale of the organization, the importance of integrity, the importance of doing things right, and all of that. So, that sets of requirements is important. But at the same time how to move fast and finding the right formula for that, and the balance, I don't think it is still there. So, how do move fast without compromising. That is the biggest challenge. How much do you want to centralize and de-centralize, how much do you want to empower people, act as an entrepreneur, take some decisions, take accountability of that decisions, and yet be compliant with the governments. I think that is the challenge for an organization like TM.

So, how effective has it been? Is it moving too fast? Is it moving too slow? Is it getting there?

I think obviously it is moving too slow and always speed is relative. You have to benchmark your speed with other speeds in the market. You have to benchmark yourself with the fastest one's and if you benchmark with the fastest one's and how they are moving, is definitely, we are slow. And the threats for an organization like TM, is definitely among the traditional competitors, it is the danger of not being relevance in your own industry or less relevant in your own industry. So, definitely, the speed is slow.

Has there been some movement? Are there any big changes in the organization that is making it move towards that?

I think there are a lot of good intentions too. If you analyze why it is slow, slow, I think for a few reasons. 1 is how much are you internally versus externally focused. That is basically, if you are externally focused, you see how the speed of the market, the speed of the customers need, the speed of the industry, then you start actually realizing the gap. I think still, an organization like TM is, I would say 50:50, to be generous, sometimes it is 60:40, you look outside and do a lot of things inside. That is one factor. 2nd. I think is by the nature of the organization, it comes from more a silo mode which also slow down these things. I also think centralization of decision, centralization of authorities, it is sometimes very centralized decision-making process.

Do you think that it is due to the “old dogs” that is still around and they don’t dare to make that decision making that they can do themselves but they go, let’s wait for the bosses to say something, let’s wait for the bosses ...

I think it’s part of it, it is hard for me, it is part of the traditional way of doing things, it is part of the nature of business before. I think it needs centralization because, if you want to roll out a nationwide network infrastructure, you got to have centralized. Because, you know, it is by nature, centralized business. I do a good design of my infrastructure and then I just go an scale properly. The new entry is so diversified, I mean, with whom you are competing, that needs a different. And I think also this notion of how much empowerment versus governance and sense of urgency as well and how much respect I take

Are the bosses supportive of this? Are they at least thinking about empowerment but this is the structure of empowerment? Are they at least considering or are they like, yes, lets do this.

I think, I am not exposed much to the board, and I think the board is, this is just an interpretation from my side, they really don’t care if it is centralized or decentralized. They care about the outcome and how you compete to meet the proper kind of stake holders’ expectations. It is up to the executives to decide on how, what is the most efficient way to run the organization. I sense clearly that there is a need of changing the operating model because it is just, you know, competing with agile, fast, kind of

competitors. You get to learn something from them. Something is of right is happening there.

The needs huge courage. If you reflect that back to TM, we have been relying, a good source of our revenue is voice. But we never had to include the courage to say that voice is free today. We should thank GOD that we are still getting some revenue from it. So let's create a true sense of urgency for a substitution for that revenue, right? And I have not seen the sense of urgency in doing that, which did slow us down in terms of innovation to move to new communication and collaboration and all this space that we should be on it. Coz we never asked question, what is the voice is. WE focused on the revenue part of it but we never say why people need voice? Voice is a communication and collaboration. As soon as we say that, we see what is happening in the communication and collaboration. I was dominant in the communication, not all the way in the communication and collaboration, how should I be dominant in the new way. WE just thought that new way is competitive ... competing with me. I am the dominant in this market, we should move as fast as possible. We are still moving extremely slow to be the dominant in the communication and collaboration. And I am thinking about whatsapp, skypes, this happens too many times. WE see the side of that business and you only think about how much you may potentially lose, you will lose it at a 7 to 8 percent per year. When was the last time ... How may voice call you make in a day compared to whatsapp and spend messaging? You make voice call based on urgency. You don't want to interrupt, you don't want to, you know.

Either we are in denial, you see it coming and you say it is not coming.

I worked in an organization called XEROX back in the early 90's. Let me share the story about Xerox and what happened to XEROX. How many innovation was driven by XEROX? Many things you would not be using today, without XEROX. GUI is XEROX, Palo Alto. XEROX invented the ethernet. The mouse. There were partners of XEROX that wanted to help XEROX to move to the next phase but they failed miserably. So, sometimes you can innovate technologically, but bring it in the right way to the market. They had the same thing. Who invested the paper-less office? That was XEROX. Which was a paper company, no? They were the kings of the king of printers and printing, scanners and they were not selling printers. They were selling a

service. At the same time, they have a XEROX park, It is the most innovative. There is where Steve Jobs learn lots of things. The revelation of Steve Jobs comes from XEROX. HE visited XEROX park and said that there is so many cools stuff happening here. Especially the GUI. ADOBE comes from XEROX. XEROX saw everything. Vision wise, they saw things happening, in the copier business, actually the patent is going to finish by late 90's. Japanese already jump in it. Koreans already jump in it. And this business is going to die. So, they saw that back in the 80-'s. So that is when the the IP wars, the internet wars, and they first invented in the first word processing work station. And tey said, if we do this, weeverything have to be digital. The vision was very simple. We are in the copier business, and it was the star of the stars. This life cycle is going to finish because it will become commoditize and so on. So this has to be digitized. How to digitize this. Move to computer. So they created a workstation for document processing. So that was their thinking, right? So now when you have documents digitalize, what do we need? We need a network. That is why they crated the ethernet. When they created the ethernet, they asked, when will this start? We need to start sell this. Now, what happens to the existing documents needs to be scanned, actually, automated scanning. So, the whole chain was there. What was missing? These guys were 99% of market. But they did not move it. Thus, did not move it because they were making so much money and they laps the digital guys be the nice funky innovative and when they asked them to go and sell, they didn't prove them properly because these were the cash cow. Go check out, there are so many phd on the XEROX story.

Are there programs or activities in place to speed things up in TM, to make things more, to get people more decentralized in certain areas, making decision-making ...

There are a number of programs adopting that and that, and I think that is good. And I think we need to give credit to the team. Clearly now, programs relating to adopt new ways of innovation either in terms of process, or products or adopting design thinking. This center was designed according to design thinking kind of methodology. Our center is moving us from a technology based to a more user centric, more people focused. We need to adopt more processes like agile and the organization is adopting all of that to fast track some of the new products that we need to bring to the market

as well as we are looking for a, digitizing some internal processes, from order to cash, processes for customer support. There is actually now, there is actually a realization, it is just that the speed that we chose on moving can be a little bit faster but there are a lot of problems actually.

How has organizational innovation affected to bring TM to the global market?

Personally, I can't really comment on that because it is on team global. But to my understanding, TM was actually global through this split. TM as a group before the split between CELCOM and TM, we had some businesses in Africa, but mainly related to the wireless and mobile. Then, when TM was split between CELCOM, the wireless side and the fixed side became more localized to Malaysia. But if you are a fix operator, you would still need the international link which more of a carrier to carrier and some member of multi nationals. So Malaysian multi nationals when they go abroad, they need connectivity and access. That is why there is a number of presence in strategic locations.

Transcription 6

How deeply involved are you in TM's organization innovation?

As part of the leadership bench, I am involved in the key needle moving areas, however, in terms of the depth, probably more on culture and branding and messaging than anything else. So, I have a finger in a lot of pies but my area of expertise is in communications and brand.

When you say culture, it is corporate culture?

Corporate culture. Let me paint this picture for you. From where I sit at brand and communications, my primary function is to enhance and protect the company's brand and reputation. That includes getting involved in, when I say branding for the organization, it is not just about the look and feel but of course, the internalization portion and culture. There are two strategic areas in TM now, which is to accelerate convergence and empower digital. Both have varied key innovation driven initiatives to accomplish those, right. In convergence, of course, we look at innovation across our products and services, in mass market, unifi; in the business it is TM One, where we look at critical solutions an end to end digital solutions. And there is TM Global where we look at innovations at a much broader scope that covers the infra basis. We also have a new set up called the digital center. In effect looks ta 2 things, digitalization of internal processes, i.e. becoming more productive ,to increase productivity, in going digital. So, innovation is a big part of that. As well as in digitalization which is in commercializing any of our digitalization initiatives and or in going out to collaborate and partner with others and sell that onwards. Then there are innovation in customers experience, a lot of it is driven by digital obviously, so instead of your normal TM Point, your call in into the help center, we are going digital via apps, and live chats. We are also going big on data analytics. All our app development is driven to get us closer to customers and our knowledge of our customers as well as marry that together with our knowledge of the network. Because of all these initiatives, not only do we have management committee that runs the basic daily operations, we also have what is known as a jedi council. Jedi council stands for Jemaah digital (a digital council) which

the key managements committee sits through this to accelerate the digitization and digitalization initiatives. As co run by GDC. It is quite innovative for us because in the jedi council we wear a different hat, we even adopt a different style, we have alternate jedi as well as young padawan's, which are known as our shadow committees. These are people under the age of 30, preferably, they sit in our meetings to basically see how we interact but also to give their millennial point of view on how we should be approaching the issues of bottlenecks.

When I talk about analytics just now, I was talking from the business functions but obviously from a horizontal basis we are looking at that from infrastructure and network and building this huge data link. We are not saying we are there, we are really at the beginning of our journey, along the way we see innovation in many aspects of our daily operations. It can be as simple as, it doesn't have to be tech driven. Our people that goes out and drives the vans and put wires together, they can utilize any means necessary to make their daily jobs easier, for instance. We used to go down man-holes and spend hours in the man holes trying to find a leak or a break or something in gas-sious conditions. Now, we put down a fiber camera and quickly assess if there is a leak there before they go to the next man-hole. For instance, there are those kind of innovations happening, So, it can be very very basic. It can also be digitally driven. It can be process driven. So the way we look at innovation is trying to get everyone to see that there must be a better way of doing things. That is the basic common sense thing that we want our people to get into. After all, our vision and mission is to make life and business easier for a better Malaysia. So, anything that can add to that, we will try it.

When you say different hats in the jedi council, what does that mean?

When I say different hats meaning, from my primary function that I mentioned just now is brand and communications, but because, I am also part of management, I sit at the management committee, there I utilize my strategy background and my experience around the company to give opinions on the matters that we are discussing. I am also involved in customer experience, so I sit on the service management council, primarily to see how we are interacting with customers or whether it is a life made easier basis. From a brand perspective, and also to try and steer them away from being too techie.

You really need to put yourself in the customers shoes. So, I suppose, I utilize my EQ portion of my skills, more so than not.

So it seems that TM puts organization innovation on a very high priority. In all these changes that is happening, where do you think it has been most affective in?

I think it is not on a high priority anymore. It is at critical level, because we have had many years of putting it on high priority but it has come to a point where, you will need it to survive.

Sometimes it has to start at the top, right. So, when we had the change in leadership in mid last year, TS Zam put a high emphasis on innovation and digitization and we were making head ways. Particularly in customer experience. Just to give you an idea, last year our customer satisfaction index score jumped up to 78. We report above 72 as our headline KPI but we made it to 78 which is the highest ever in our journey. Over the last 5 years, I would say it moved 6 points. Which is significant by any measure. WE also moved up our net promoter score from 3 to 6 in the last year alone. This, of course, is a combination of innovation in customer experience, processing, systems but also in people approaching customers problems. WE have introduced, when we go out to service our customers premises, we have equipped them with digital tools that makes their life easier but connect them to the background support that they require to make the job go smoother. That was a big innovation for us. WE innovated how we deployed teams to go out to install and restore. So that meant, quicker turn around time and so on and so forth. The results speak for themselves. I am not saying we are perfect. We are still got 30% that will scream and curse us all the way to where ever they can. People love us or hate us, most of the time they cant live without us so they have to bear with us.

So I would say that we are starting to see, for me personally, I have been in telekom for 20 years. In the last 5 years, the culture shift to really trying to be come more like a tech company that is customer focused. In the last 2 years, we have embarked upon going agile, as an organization. We have about 2000 people trained in designed thinking. Now, training and implementation are 2 completely different things. So what

I was saying was that we changed leadership late last year, when Shazali came on board in May or June, within 3 months we had launch 3 major applications. 1 was wifi and unifi for the nation, mobile at unifi by the end of the year, which is a hybrid mobile plan and also our some other application in house, particularly one in collaboration with a company from Thailand and we have move all our internal communications from Whatsapp, whatever messaging apps that is non secure, we have moved it into an internal platform which we co-developped with the company that we launched in 1 month. Some other applications we launched in 6 weeks. Unheard of. Unheard of for TM. What does that mean? That means that we always had the knowledge. We had access to the tools. Perhaps it was the will and the directive that was slightly more lacked. But when you are toled to do it, you go and do it, you can do it. So that was te learning that we got. So it is not that we cant do it, it is just that if you set your mind to it. What does it take to set you rmind to achieve those things in a more effective and efficient manner. And that is how we approach innovation now.

Where do you see that innovation have been the most positive?

So, as I have said, in terms of the internal mindset with the freeflow of information in our internal platform, FLOW, I think that it is a huge change we have seen, problems being discussed, in groups of like, even 300 even. Which is all our young leaders and above. Key AGM;s and GM's above, all the way to the top to talk about group issues. So, nothing is suppose to be hidden, in that respect. So, that one has lead to a lot of bottle necks being quickly resolved. We have reduced time in meetings, lets stop scheduling meetings, get on FLOW, form a group, start the discussion. Let them be in real time. Efficiency in time management has been quite key. Time management also means faster decision making. And secondly, that fear of unproven or unchartered territory. We go first, we see how, and then we try to make it secure. And work towards a better end. Theres a bit more appetite for risks, I would say and also appetite for failures. So, if you are always in beta, you have accepted as such. It cant held against the development team that if things get srewed up once in a while. Unless it is a major screw up. And you have consequence management. But we try to be a bit more fogiveing but rectify the mistake faster.

Does that mean that one of biggest positive change is actually mindset and culture?

Yes! I would say, for me, and also coming from me, and you may say that I might be biased, coz what has changed, we have always had the tools, we always had the access to technology, so, the difference is the will, the will to do it. And the confidence to do it.

So, what was the key thing that changed the will to do it and the confidence to do it?

Leadership tone. More effective tools for us to unearth the opinions, I would say, because, you know like, if it was in a meeting before, when you have to schedule meetings, one you have to figure out, is it the right people you got in the meeting to solve problems or to design a new solution. By going agile and going across the teams by opening up communications channels, not only the breadth of communication channels, and the depth of it, down the layers, I think has really unlocked communications and information flows that might have been hampering you before.

The major challenges in doing all these changes?

Are we going to be fast enough to market? You have the realization but everybody is in the same bandwagon now, everybody talks about digital economy, everyone talks about digitalization, everyone is racing to get there, to enhance customer experience. To get the financial benefits of cost savings from digitalization initiatives. It is a matter of you know, who is going to get there first and who is going to win the market share. Or unearth value for the company by doing so.

Just now, you mentioned about one of the means to measure is how satisfied are the customers, customer satisfaction index, your net promotion score, you also mentioned how fast products are brought to market, how fast ideas are being developed, issues being discussed, how fast problems are being resolved; is there any other ways that innovation is being measure? Is there like,

how collaborative now teams are in TM, how policies are being refined, are those things are being measured as part of innovation?

I think those are more quali measures, the quanti measures to obviously come back to show me the money. Are we seeing better sales? If it is not better sales, I would say better cost management and therefore, better profitability. If it is not that, are we seeing operational measures being sped up, in terms of time to serve? And of course, most importantly are our customers happy with us. If our customers are happy with us, they will stay with us. If they stay with us, they will spend money with us. And so on and so forth. So, you create value.

So, there a number of measurements that you can use. The quali stuff, of course you will measure, which is, do people believe in this thing? Fo that we use our happiness index, we measure key happiness index. Which is engagement, you know, how much do you believe in this vision and what not. We even have abandon appraoisal forms, now on systems, Appraisals were mostly done once a year. We have moved into an app environment, where you can literally weekly conversation if you wanted to, even daily conversations with your staff that syas, good job today, I don't like your attitude today, good job last week on that jo, ut here is some=thing I need you to work on and you start to measure it from that point of view. As oppose to it being like , you know, you cant address the behaviours or what not.

SO, you need to have necessarily innovation environment. Several key indicators that that will help you get a feel for how things are going. And certainly it is not your normal management monthl reports anymore. So, in the jedi council, we don't look at monthly management reports, we look at the progress of the apps or the digitization initiatives that we are looking at. Rate of adoption. Turn around cycle time. Slightly different measure.

You mentioned about a different tone from leadership. What if a new leadership comes in?Team may have thought, you know, this is a new boss and the new boss likes it. But what happens when a new boss comes in?

So, I think, we have been lucky that we have continued in the same vein. Since the days of the previous ceo, when we started on the hsbb (high speed broad band) it has always been about convergence and digital. Always. Since 2008. 10 years later, that direction has not changed. We are keeping to that cause. Now, how different leaders go about it, obviously impact how fast we can get there. SO, with TS Zam, we got a fair bit of a way. But even he recognized that you know, for TM to take it to the next level, it needed fresh leadership. And that is why a par of the reason he left, he wanted to create value else where. And that is a real mature, and that shows you a wise man. In terms of when do you hand over to the next, baton to carry. And testament to his legacy, is the ability of the current management team to remain intact. Of course, some of us have left, since then. But for the large part, the majority of us that has stayed are the one's that is carrying through the vision with new energy, with a new way of doing things. So, nothing has changed in terms of convergence and digital but what Shaz and Bazlan are working together to deliver is the acceleration and the empowerment.

How supportive is the board? Or are they one of those standard board as long as you show me the bottom line, theres profit and growth, I am happy.

I will be very honest, they were very supportive as of 3 years ago when we embarked. Now they are getting slighty impatient. Where are the results. In terms of, yes, great you are doing all this, but how fast are you going to bring the results to us. Coz' we embarked on some of the initaltives as early as 3 years ago. We started going agile. So, where has that brought us. And we said that those results are coming. But also, from a marketing point of view, it is a few factors right? We have made a number of investment over the past few years, we said that this was a phase for investing for growth. So, you kind like have to live with it. For a while, I would say 3 to 5 years to see that. So you would need to have the stamina for it.

So, I would say and I will be completely honest, they are 50:50 now. Ok, I can see some, I can see some movements, but can you get there fast enough. We are with you. We are with you for now. But you need to show results.

So, they are still pushing speed,

Yes, they are pushing speed. It used to be like, you innovate because you need to and it is part of business, people put it as high priority, I see it as critical. If you want to innovate, you need to innovate because it shows results. We are not running an R&D outfit. It has to be sped u. R&D can still go on, but the stuff that we are doing, innovation, has to show results. You cant innovate and keep to old processes or the old way of doing things. Once you innovate, you leave it, you move on. We are even trying to desperately to learn how to disrupt ourselves.

We are at that sate. A lot of people are failing because, they innovate but they don't want to disrupt themselves. It comes to a time where, if you were a new player, and you were attacking yourself, if I went out there and I was attacking this company, what would I do? And then we need to do it here.

People are already eating our lunch.

That is why I said, innovation is not at a critical point and I think the word would be disruptive innovation. I would say that radical does not give that burning platform. When you disrupt, you strike the fear.

Transcription 7

It is a GLC culture

You have this hierarchy, and you cannot, it is embedded in you, that is how, across the western world that is how it works. Probably Germany and so on, and that is how everything works. You go to Japan, Korea, same thing. The Japanese guy will never look you in the eye.

That is a dilemma that we have now, where good people will leave the organization, bad people will stay and those in between will just not do much or too afraid to do much.

How do you become a disrupter but yet you have to comply to the rules and regulations?

You put rules and regulations 2nd. Rules and regulations are created by people and it is not carved in stone. It should never be carved in stone. You can only disrupt when you go, ok, I need to adjust this. That particular policy and process is meant for me to have accountability, there's governance and everybody understands the steps. But, if that step changes. For example, when MSC was first introduced, china and India was not in the picture. McKinsey was telling, this is what you should do. When India started coming into the picture, there was no reaction. And India grew really quickly. And when China came, they did the same thing. And we missed the boat. As a country, we totally missed the boat. Yes, there is process. There is a structure. But you need to react if there is any disturbance in the force. So, if you want to be a disrupter, there is always a need for someone to say, no no no ... this one needs to be done. 90% of the other people will say that it cannot be done. The rest of the 10% will say it can be done.

So, if there are 2 or 3 guys, very senior guys, and they say, lets go ahead with some of the ideas we have. But some of these ideas may not comply with the P&P's (process

and procedures) that TM or any other GLC's are governed by. And remember, our type of organization has an audit function that is independent of the management and the auditors might just say, sorry guys, you are breaking the law. So?

As long as it is not breaking the law. The thing about being disruptive is that, you understand the problem. You don't allow the problem to stop you from doing anything. There is always another way of doing things that does not entail breaking the law. To be disruptive, you understand what your constraints are, and you just solve it and go through.

Or you change the constraints.

What is your role in TM?

I basically look after the European and African operations, Used to be Middle East as well but now we are opening up a Middle East office so there will be some body that will be posted there soon. In Dubai. But nothing has been finalized as yet. TM Global have been around for 14 years. The 4 main regional office, which is UK, US, HK and Singapore, they were all set up in 2003/2002. Australia was set up a couple of years ago.

How deeply involved are you in TM's organization innovation strategies?

Not so deeply involved and obviously, TS Zam spoke to us about the innovation exchange program and things like that but we are not really directly; in fact, I am not sure whether that department exists anymore as well. His GM came on board. And then he left. Maybe right now it is under the digital office.

More indirectly, is like if, somebody comes to us here, and there is a showcase presentation of their thing, ok then, we will then think is this something that is applicable to TM. And if so, if it make sense, then we will refer them to the people. And say, look guys, there is this guys. He is willing to travel to Malaysia. Willing to do his presentation in front of you guys. Have a look at it. Classic example, there is this one guy in Germany, who has presented to us. He is going to KL on the 26/27 of march

and he is going to do a presentation to the TM One guys and the TM Global guys to see if that product can be incorporated in TM. And if so, then TM will obviously go further. So, our role, is more like, ok .. we understand what is going on in the market and we bridge it to TM HQ. That is one of the role that TS Zam pitched to us, saying that you should be the eyes and ears; if you find a disrupter and is disrupting the market here, come in and maybe help us.

Would the people that come and talk to you are looking mainly at the infrastructure part of TM or an app ...

Something where, obviously, we have to kind of figure out if this is going to add value, there might just be somebody that can say that I can provide some things. If somebody were to come to us 2 years ago, and say that they can do IoT and all, we might find it difficult because we didn't have the mobility side. Now we have webe and now we can refer that. Even apps, to a certain extent, even CSR, could also be useful because this is something that then you can kid of put it as a product and see whether those guys, and can see how do I can kind of control, so that can be done.

But do you promote it? Do you market it?

Yes. Yes. Now. Only in the last 14 - 16 months. We are kin of going o a lof of these conferences and a lot of ventures out there ourselves just to see whatis there in the market, and that is where you meet people and that is when you kind of understand. There is no such marketing as such like please come to TM and come talk to us about your products. I don't think there is anything like that. The sales guys are responsible for that, to keep their ears on the ground. For example, James met this guy, we meet up, we have a meeting here, the ceo and now, we are bringing them back to kl. But it still does not answer your question as even if I were to bring it back to KL, it might just fizzle out. That is a frustration that all the regional office will have to a certain extent because, we may bring somethings to the table, but then it kind of fizzles out.

The passion has to be there, if you have somebody who is driven by what is kpi is, which is all I have to do and that's it. We all have kpi's but the ethos is that we go above and beyond the kpi's. That is the only way we can actually grow. Otherwise we

cannot. And if I would have just said, I am the boss here and I am not going to do anything except just supervise ...

I gave the IBM social projects due to many individuals that are driven by kpi's therefore, they force these individuals to perform by putting in certain kpi's. I start talking about how some organizations incentivize employees to get the employees to go above and beyond.

Lets look at the facts, doctors, they became doctors because they wanted to serve and help people. But doctors now, are commercially driven. Teachers, .. come on. In hindu, a teacher is a guru, that's the guy you look up to. Do you look up to teachers now? Same reason. Because teachers are just doing it as a job.

To be honest, there might be some hidden in Malaysian that is probably doing a better job. But its just how do you go and find them.

If you are in the position to tell or share some ideas to the management of TM, that there are certain things that need to happen, do you think the management over there would listen?

Yup. It has been that way since Tan Sri Wahid's era. With the first 2, a lot of interactions because, they come to London quite often. London is still one of the key international hubs for Malaysians. So we have had a lot of interactions with them. They do listen and of course they pass it on to the respective groups of people. And I think a lot of changes have happened. And I will be very very honest, TS Wahid, he listens. We could see changes then. He heard us. Then TS Zam came in, he was obviously a technical background, an engineer. But, yes, he has his speeches when he has his "Jom Bersama", he says, you guys are the eyes and ears. Please let us know if there is something that comes in front of your eyes talk to these people. Talk to the right guys and not just talk to the managers and assistant managers; talk to the EVP's and so on. So, open door policy. Definitely.

I think at the end of the day, it has to be proven that it is going to make money as it is a business at the end of the day. If it is something that TM need to adopt, moving into

the future is, we should accept failure. 9 out of 10 ventures fail. Even Mr Musk, the other day he said that TESLA nearly died.

Leadership has to be agile.

Agile now is the mantra in TM.

Do you think people (employee)s that talk to you about agile, design thinking etc is actually embracing it or just kissing your ass?

Datuk's reply is, I hope they really understand.

How do you measure successes in organization innovation?

The latest ethos is key happiness index in TM. One of the things, if I am not mistaken is, if you have a passion, for selling fruits, or you have a stall; I think what they do now is that, they allow you to do whatever you are passionate about. Maybe that is one way of measuring. The other one that I believe in is Government driven. Its now that you can finish work at 4 pm. Flexible working hours.

Then the only way to measure productivity is if he is a sales person, lets say, and he sells prior to this new working way, if your revenue has increased because you feel more fresher, doing it in 4 days rather than over the whole week, that is a measurement, I guess.

At home, you can be happy one day ad if your wife starts spending, ... yeah.

I think the only way we can see it in our side here, maybe if we can see that staff turnover is less. If we can see that the team is given the opportunity to go ABOVE AND BEYOND the kpi;s that are set, I can actually vouch that that could one of the reasons and here, the staff turnover here is pretty much less than 10%, since we started. And that I because they are given this opportunity to go and look at things and don't just get stuck to what you are doing.

Do you think because you are a smaller team?

Yes. A smaller team always means that there is always there is nothing like .. we have out P&P's that we, of course have to sure and abide by. But I think, they, sales guys selling voice, is not acceptable here. You go and sell everything. You go an bring things to the table. Youa re not just a sales person. You are also indirectly a purchaser. Because if you purchase something that is going to benefit HQ, that is bringing in a bit somewhere. So, you are not just a sales office. You are actually a procurement officer as well.

What other major challenges do you think you face in TM UK and you think that HQ may be facing from where you are?

The disruption in the market, basically. Because, the OTT's (Facebook and all those guys) are beginning to take over what used to be our bread and butter. Voice calling, is via apps now. Its not via phones. So the bread and butter business has had some major challenges. That will continue to detrimental to the business, But the other challenges, I would say is, lack of skills, especially in the new world of telecoms. We all come from the old school of thoughts, old school of telecoms and all of us now have to start thinking like how, Mr. Musk thinks like and so on. But I don't think none of us have, coz if we did, we will all be like him.

There is a research done by SingTel R&D Team, a couple of years ago, I think, where they have got innovative products, which they can actually bring into the market and disrupt their current products. What it all mean, is that it will actually, any new products that comes in drives down the cost, and you have to sell more, to make up from selling the bad one. And they have done the research that these products we can bring to the market, it will kill our current products, but it will also mean that our revenue will also decrease. Overall it will decrease, you would have to buy so many of these, to bring it. And they have done that. So, sometimes, they don't bring it out. Some companies will purposely not bring out, a product because it is going to kill their own product. But now, what is happening is, because if the market is opening everywhere, Malaysia is an open market, isn't it? You can come in and do whatever you want to do. And, so

disruptors are coming in. That is the challenge that all of us are facing. But as I said, skills shortage is a key.

Do you think skills or do you think it is just, afraid that if I learn new skills and letting new things coming in, I will would be out of a job?

No. I don't think so. If you have more skills, you are more scalable. You are more marketable. Like myself, everybody is looking about cloud security, cyber security, doing apps. If I had those skills, I would be selling those products and I would be looking into those products, correct? But I don't have those skills, for example, None of us did till when everything is now becoming more and more hacked. The bit coin technology, I mean, that will revolutionize the banks because that's a key disrupter to the banking industry. Now, if that goes ahead, what we are doing in the banking industry now is finished ya.

Everybody is fearful. People are saying we cant do this, we cant do that. People are bringing in the laws.

IoT, Internet of Things, That's a new thing. That is going to drive companies forward. Smart building, smart cities, all that. That is all touching telecoms.

On skills, it just means that you just need to spend more on education. It I a chicken and an egg situation. What are you going to do now? Are you going to bring in all these new wonder wiz kids from universities who can do all that but they have no management experience. Or you retrain your staff. Retraining is very important.

Transcription 8

What specifically is your role in TM?

Currently, I am the acting chief human capital officer

How long have you been in TM?

In the TM group, this is almost three years. And three years is considered as very, very junior in this case. In TM, the average years of service are already like, probably like 32 years or something like that.

Where were you before the TM Group?

I spent most of my career life at IBM, 23 years, I was with IBM. Started in engineering, then sales, then HR, HR Malaysia. Then HR Asian in Singapore, then HR Tokyo.

How deeply involved are you in TM's organisational innovation initiatives?

If you ask me how deeply involved am I... I am definitely involved. But you have to help me elaborate on what is innovation initiatives.

<I explained what organisational innovation is>

What, based on your capacity of group HR, what do you think organisational innovation is?

I see it from; if we were to use it in the traditional or conventional HR, it would be more on a learning organisation, they call it, whereby you produce your products and services through your own capability. So, in that context lah. So, whether or not, the organisation promote that behaviour, through whatever programme they have to make sure that the organisation is competitive through their own cost via their own research, promoting creative ideas to make them competitive—something like that.

You have to remember that I am a practitioner. So, if you are a consultant, the terms may be different.

This is where my interest. I would probably not call it organisational innovation; I would call it, living or positioning organisation in digital culture. That is a subject very near to me. Because one of the motivations in TM, because when I join TM, through P1. That was three years ago. They wanted P1 to be their mobile arm. And they asked me to create a digital organisation. So, P1's mandate at that time was to create P1, to be like the google of the world, yahoo of the world, uber of the world, whatever it may be. I took the challenge because I like it. Why do I like it?

Because it is not easy, because I came from an organisation like IBM, which had 400000 and very old organisation. WE made P1 become WEBE after that. Which is very nimble, very agile and yet, the mother ship is a typical Government, and I have stories after stories about WEBE. In fact, TS Zam called me once, to present the digital culture journey of WEBE at the GLT (group leadership team). In fact, until today, In TM, there is, as part of our leadership development, they work with this Crankhill University, in the UK. So, I asked these people to work on a project about, the question I have in mind, a real question, actually, even the setting of TM today, the 26000 that we have, they interviewed me to ask my expectations. You close your eyes and imagine 2025. What is the world gonna be? An where we are today? Are we ready? In the digital culture. Of course, you got HR, so you see it from the HR perspective, using all the HR discipline, all the performance management to coaching, to policies, to benefits and so on, and so forth. So, they are doing that work something along with your piece of work on innovation as well.

When you say they do their work, do they go to the UK to do it?

No. The UK lecturers come to Malaysia. So, any AGM who wants to be a GM in TM will have to go through this leadership programme that we partner with Cranfield. Don't ask me why Crankfill but Crankfill was there when I came in. But I subscribe to the fact that we have MMU, why are we using Crankfill? But that doesn't matter.

There are a lot of opportunities that TM has, our assets that we can leverage, but we are not using, so anyway.

So, the subject of innovation, the subject on digital culture readiness, the way management style and alike, is completely close to my heart. The Cranfield training is for a year. The University will not evaluate them to be a GM, but they will come up with a leadership certification. It is a leadership module.

Intrapreneurship. Innovation. In the setting that the TM have is very interesting. Because do you know why? But have a look at the average years of service is about 30 years. People in TM is like the people in IBM; they go in... most of them is their first job. And they don't see the world outside. They are under the shell of TM. The strange part is, even with the talents and so on, and so forth, for example, they asked me about remuneration; are we going to review the salary, even to the BOD level. Then I explained to them; remunerations is about affordability and about competitiveness. You have to balance these two. Affordability. Competitiveness. Affordability is easy. You look at your company results. Competitiveness. How to measure competitiveness? Competitiveness is the ability to attract, and the ability to retain. Now, attract, now, ask yourself, how many do you hire in a year? And most of your hiring is coming from your scholars, which is actually your investment already. From that standpoint, many people want to join TM for whatever reasons. But if you put TM, next to MAXIS, next to CELCOM, it becomes more difficult. But it is ok. Attrition rates. Resignations. People don't resign in TM. Somehow, I am starting to learn, which many TM people don't agree, well they may agree with the fact, but they don't like it, they don't leave the company because they just love it. So, I was almost shot by the Board that day, when I asked for some budget for salary increase. So, if it is true, then you don't need this increment, which is true.

The challenge with TM is that, because we are so fatherly, so taken care of the kids, that itself is convective already. People don't resign. But the not so good part is that bad people also don't resign.

Do you think it is because TM is still under the Government, and technically, Government do not fire people?

Ok, that is true. To a certain extent, yeah. Yes, because we have both social and economic obligations. So, these things we have to take care of. But on the other hand, at times, even now with DS Shaz, who came from the rough and rugged world outside there, who come in and talk about, actually it is not fair for Government, to put us next to next with the MAXIS, the DIGI, the CELCOM, simply because the others don't have the obligations of the social economy, while we have. Because, of that, I think it needs to be perfected. Allow me to manage TM like MNC. Hire and fire; then I can be like them. But I cannot. So, that is where we need to balance. So, therefore, somehow out of the 26000 people, yes, you are right, from a cultural standpoint, they are like complacent. Like, I can live happily ever after. In fact, only after I came in, I have about 464 top talent, I teach them about, I teach them, do you guys know about LinkedIn? Some of them don't know, actually. I told them, I am taking a risk, why am I taking a risk? Because LinkedIn is when head hunters will call you. I am taking a risk because, if you are good, and head hunters call you, but you don't underestimate me if I know you are good because I will counter. But if you are that good. But if you are not good, you tell me you resign; I will keep quiet. Then you know what I mean. The most important thing is that you must sign on to LinkedIn, LinkedIn is like Facebook. All I want you to do is to compare with the friends outside there; then I have to teach them about the Hay McBer, a model to develop high potential. The model uses three circles, ability, aspiration, engagement. They use these three models. And this model is very good. In fact, I used it even for my kids. First, whoever your talent is, they must have aspiration. Meaning, do you want to be a GM? Do you want to be a VP? Sometimes, they are sitting in the top talent group, not really knowing what they want. The concept is that not everybody wants to be the CEO. So, I have to explain to them that it is ok not to be a CEO, it is ok not to be a VP, you just live happily ever after, is ok. There is nothing wrong.

Ability is about the ability to perform your current job. You can have a very high aspiration, but if your performance is bad/poor, then forget it.

Engagement, if you have aspiration, you must perform, you must have engagement, like a sacrifice. You must have your MBA, your PhD, you do things you don't like, you have to work extra hours, you have to do things on weekends, and as you go higher on your, you have to do more. You must understand that. The 3 circles must balance.

I am trying to teach them to be the MNC's of the world.

Somehow they are not exposed to the outside rugged war, that is really rough out there and you must be a Rambo to win.

But there are people who are GM and VP but they are successful.

So, if you want to argue innovation and entrepreneurship, they are not seasoned enough. Their faces is not seasoned enough. Not like Charles Bronson.

The whole digital culture is very interesting. In fact, the biggest challenge that I would worry about is the mindset. To put the factor of innovation into them. If you want to be innovative, you must be able to fail. And to learn. And to, like our prototype, design thinking and alike, you fail fast you recover. If you have a mindset that you can't fail, and you punish people like crazy and people won't innovate. So, those kinds of mind set that we have to build.

I am nervous, I am nervous because my view about this, especially on digital culture, this is the most challenging time. Simply because, the position in power, the people to hold decision in power are from the era of mine. We are trying to entertain the people of gen y, gen z now, and we are trying to force feed, trying to be youngsters, if not handled properly, we are going to mess it. This era, I think, will be like this for another 10 to 15 years. After that maybe you and me are probably gone. And I don't know what happened to this people. So, the challenge now is, heavy because we want to give them the freedom to run with it and yet they want governance. WE do policies based on what we have gone through in our glorious times. In my years. When you attend a meeting in those days, they will tell us to shut down our laptops and just listen to me. Today, I am talking to you and I don't know if you are probably sleeping on the other side. Suddenly the power of trust becomes so important. And our era, to give trust or empowerment is very difficult. That is why I like the book entitled, the speed of trust.

When I was in webe, we allowed titling of designation to be flexible. I was the HR Head and I changed the name Chief Human Capital Officer to. Well, people do not like the

Well, people do not like the acronym, I changed it to Chief People Experience Officer. Simply because I argue that at that time, customer experience is very important, to our business. So, I said that why don't I use the same experience mode moment, from the moment you become a member to the family of webe, you are having a great experience. You know, a pleasant experience. You know, when you join, the employee journey, until you retire or we fire whatever that is.

It is very funny that we want to give the freedom but at the same time, we want to control so that people do not go overboard with the titling. This is because, I and many of the decision maker are people that are used to control. I remember, I gave a quote to a magazine, 'let the passport picture in the passport'. This is reflecting about our name tag. All the name tags of TM employees are very stiff, like passport pictures. Let them put their beautiful face. There are also abusers, putting pictures of them skiing. The beautiful profile pictures are those pictures that you have in your facebook. When you have your identification tag that you are proud of, you go around, you want to show people. As oppose to, having a picture that is dull that makes us ashamed to even show to people. Therefore, in the digital culture, like our dress code, in webe, dress code is whatever you feel that is comfortable. Non-one came to the office wearing a bikini.

In digital culture to support innovation, the rise of unwritten code, meaning our work are governed by things that are not written. You reflect to our kids that wants to buy things, they don't look at the manuals. Nowadays, to see how things are operated, they just look at YouTube. And we worry, because, me and you, raised in our era where we need to have a way to learn how things work. So, when we do that, the most important thing to us is values. How we educate our children on values.

Another profession that will have its challenges will be HR. Because HR will be using the policy, that will use SOP, that will use employee's handbook, without that, HR don't know how to work. To me, the readiness of that setting and the culture, then they can support innovative and entrepreneurship.

So, it is quite important that innovation happens in TM. So over the past 3 or 4 years, there have been a transition of leadership / CEO's, and a lot of changes

is happening, where do you think organisational innovation have been effective in continuously to transform TM? Where has it been most effective?

I think it is too early the impact of transition of CEO's. Because it is too short a period. It is not even a year yet. Compounded that our new board is also very busy with elections. So, therefore, there are no real noticeable changes post transition. But on the other hand, again, you used the word innovation, I have to cover it under digital because one thing that DS Shaz has done, quite cool I thought, from the digital stand point, we have created our jedi council. Jemaah Digital. I kinda like his branding because he is creative. He is creative in his thought process and he will challenge us with new ideas. For example, even in HR he challenged, why is our pay have to be on the 26th of the month? Why don't we ask our employees what day they want their salary? It can well be that an employee would like his salary on the 3rd, 15th, 20th and etc. To a traditional HR, it would be .. whaatt? That is going to be hard. But he is talking about that we should go to the pesona, we should go to the employee. It is things like that makes it disruptive. When we say wow! Then he is promoting that kind of thing. So, from that stand point, from digital's agenda, innovation is there. From that stand point, and you are not coming from innovation, per say, and talking from a digital initiatives stand point, quite a lot. Even in HR, workforce segmentation. Basically, workforce segmentation is a consultant term. But basically, what we are trying to do is, trying to segmentize our workforce. They argue that, when we segment our work force, we are able to address things that matters to them. We could not do that before. Before, we did not have the capability of data analytics. But now we can. To give you an example, before, company's that does benefits, for example, 1 benefit fits all. For example, when you join a company, the annual leave is 18 days. It does not matter if you need or want the holidays, it will be 18 days. Actually, in today;s work force culture, people don't do work like the olden days. People do work for money. People work because they enjoy doing and money is important, yes. But other things are also important. So, some people work wants flexibility, like the youngsters today. So, therefore, in fact, if you are talking about the digital world, when people say, anytime anywhere, in 2015, when you give a letter of offer, and in the letter it can say, thank you, you are part of the family to deliver this tasks. And according to the olden ways, it will also say that you will be entitled for an 18 day annual leave. I think those kids will be shocked. They may say, I want to work but you give me holiday. Because, to

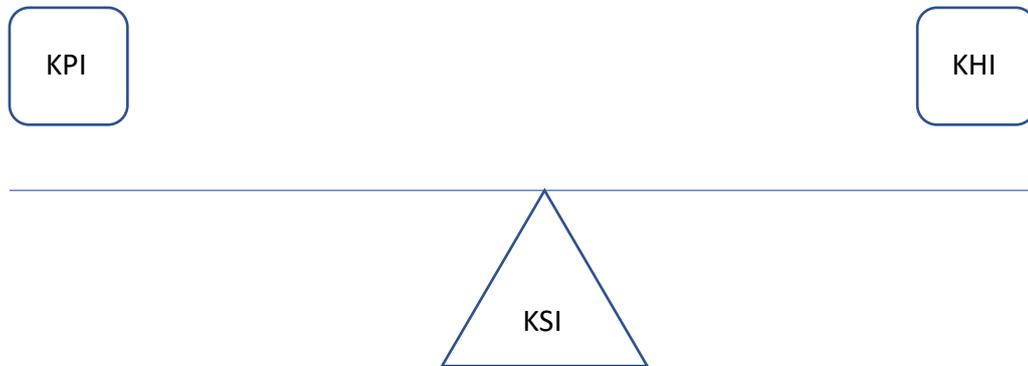
them, work is fun. Today, I am doing this with you, I can argue I am working but I can also say that I have a new friend, Roslan and I want to contribute to his work. And it is already 12 am and I don't care. And today, we are cross country. And in the olden days, we would be very difficult to do what we are doing now. You can see that the whole work culture has changed. So, therefore, we change the way we work today. Then, we must be creative lah. That is why I challenge my union, I said, guys, our collective agreement, we need to change it. We can't be like before where anything and everything needs to be written down in a book. But when we are flexible, it is more relaxed. Coz all is based on trust. I trust you. Now we have the collective agreement where we have to renew or do it every 3 years. When you do the work force segmentation, what matters to you may not be applicable to another person. So, mindset can't play tick tack toe. It can't be, you get that, I get this. It can't be that way. For example, what we have done now. For pregnant mothers, you can go back at 4 pm. So, expecting mothers are happy. So, non-expecting mothers can't get upset. Because, that is specific for expecting mothers. Then we announced that mothers that has children below the age of 15, can also go back at 4 pm, so that they can do what is needed (such as sending for tuition), so those mothers that has kids below the age of 15 years old is happy. But others can't be jealous. But our society, if following the olden days, is that, since you got that, I want it too. In fact, in giving my speech to the people, ...

So, it is about the readiness of cultural mindset. And the fact that it is a new world we are dealing with.

I was also told about a new app called FLOW ... where do you think these changes have been most affective in comparison to before.

I think the first thing is that we are on the burning platform in terms of improving our productivity. We must improve our productivity. We do not have much choice. WE have to improve the way we do things and must be different from how it was before. We do not want to take the route of just reducing the manpower by doing VSS, firing people and so on. The motivation, is still about manpower cost. I don't know if I have already explained to you about the KPI, KHI, KSI. DS Shaz is driving the importance of 3 components. While driving the KPI (key performance index), and addressing KHI

(Key Happiness Index) and both must be done by having our KSI (Key Spiritual Index). If you were to draw, left and right is KPI and KHI, the fulcrum is the KSI.



This is important, this model is newly introduced by DS Shaz to our organization late last year. Because, he believes that KPI is a by product. If you can drive KHI. But if you want to do KHI and KPI, you must do it through KSI. I can still achieve my key performance, I can still make people happy, by doing bad things. Bribery or stealing or whatever. So, if you don't have KSI, you can still achieve, but we do not want to do that way. Because it is not sustainable.

So, how does think link to me driving down man power costs? You know, we have 26000 man power. It is way too high in the market. Ideally, we should have about 13000 to 15000. But we are not about to fire 10000 people. So what we are doing now, under the perfexe 10 of the company, DS Shaz also designed aspiration 2020 via a model he called the perfexe 10, i.e. "perfect execution 10". There are 10 components.

Component no 1: is trust. The importance of driving trust. This is very important. To make sure that our aspiration for 2020 is achievable.

So, if you go around the model you would see it fit for each part of TM, i.e. 1 for TM One, one for unifi, one for global, one for digitalization, all initiatives to drive towards

2020. From a HR standpoint, I am interested in the digitization and digitalization. Meaning, based on what we spoke about before, i.e. on digital culture and alike. My focus will be on the cultural acceptance of the digital world.

But what I want to focus on under human capital is what is called work force segmentation. This is supposed to drive productivity but in terms of options for you. And when I say, options for you, I am not saying that we are forcing you to go back early or whatever. We allow them to handle thing things called the geek economy. Whereby, I have been talking about this subject so many times, going state by state, ...

Work force segmentation is basically, is trying to figure out what matters to people, in what segment. So meaning, we use segmentation for work force. We could not do that before, but now we can because of the power of data and data analytics. For example, the matter concerning going back early for some people could only be done because of the availability of data initiatives. So, short of doing the conventional cost cutting initiatives, like more effective in managing overtime, being more effective managing our shift work, like controlling our hiring, like managing poor performers; those are conventional. Even like doing VSS, those, from my view, are traditional. Those are conventional of HR of doing things. To make it more extreme, we can do the inorganic where we spin off companies or sell some parts of TM, for example. For example, if we take the fleet department in TM and we sell it off but engage the new company for the service, for example. Those are the things we are studying now this year. On top of that, we are also studying about the geek economy. Basically, in the olden days, when I was in IBM. If the companies are not doing well, people offer employees to work 3 or 4 days in a week, instead of 5 days. So, if they work for 3 days, they are paid for 3 days, instead of paying for 5 days, which decreases the cost for the company. Even though at that time, I remember, while there were many takers, these kinds of programs, it is optional to the employees. So, in north America and Europe, it was very successful, 15 years ago. That is mainly because the people in north American and Europe, they don't work like the people here is Asia. Asians work , they want to work 3 or 4 days but would still want to be paid for 5 days. Because they need the money. So, Asians work for the money. So, 15 or 20 years ago, then they launched this program, there were not many takers because people need the money.

However, today, with the geek economy, it can. Why? Because they can still generate income doing other things. For example, if I were to ask them employees to figure out what is their per hour rate, you take your one month salary, divide by 26, divide by 8, suddenly you realize, an hour of pay is MYR 50.00 in TM, and in that hour, you can actually do UBER for example, or GRAB, you can probably earn MYR 70.00. So, what I can do is that, I said, I let you go at 4 pm instead of 5 pm. Short I deduct your 1 hour but you can use that 1 hour doing other things. Like UBER, GRAB, to teach Islamic courses, teaching tuition, like doing cookies at home, like doing internet based business. Those are called geek economy. Or uberization or external geek economy.

Internal geek economy, like in TM, where we sell broadband at home, we have an installer, Our installers are mainly external contractors. SO, instead of paying external contractors, why don't we pay to our own people, who wants to do this extra thing. But of course, they would need to study and calculate how much they can recover per hour. Or even our contact center.

I don't know if you have it in London, for example, domino pizza, there are people that can just go and learn how to do the domino pizza, or can be the domino pizza's call center. And after the training, they get the password and ID, They can sign on anywhere, and anytime. Whenever the sign on to that domino pizza's call center, then all the request to order pizza will come to him. Then we will then route it to the respective outlet. SO, by doing that, they will get the per hour rate paid by domino. So it becomes flexible for people to earn money. So, we are studying to do all those things. So, all these initiatives, are done through the workforce segmentation. These are big initiatives. There's a lot of program under this which we are doing it this year to drive cost down.

Can I still say that it is still too early to see and positive or negative impact? Or can I say that there is any change in the way people think, or behaving within the organization?

For 2018, because it is newly introduced, the main focus is on communications, to get peoples understanding. In terms of positive results, through the reduction of man power costs, is still very minimum in 2018. 2019 will be big and will be bigger in 2020.

So it is still premature to see any negative or positive change?

That is right.

How has organization innovation affected the decision to bring TM to the global market? How effective has these offices been in bringing in more value to TM?

My sense is that the impact to the global market will be minimum in the initial stage. Simply because, we are focusing on the domestic market first. However, in terms of education, communicating people, for example, design thinking, prototyping and alike, are impacting everybody.

See, in the global market, I cant say too much on creativity or innovation can be done, but at least it will impact the work culture of those people in the respective regional offices that we have. So, in terms of major impact, I don't see it being coming, I think that will only come big around, after 2020.

What is the most challenging thing that you feel, first of all, from your role as the Chief HR, in tackling challenges in executing organization innovation within the organization?

I think I already in my discussion earlier. The whole thing about cultural mindset. Also because, based on our demographic, there is a percentage of our people that is old and is retiring and have been working for more than 43 or 48 years. So they are beyond baby boomers.

And many of them are in the union. And once in the union, there is a collective agreement. So when we talk about flexible hours, or working mothers going home earlier, and even that they would like to put that in the agreement, then it becomes difficult as in the digital culture, it is not done. When you ask me about the challenge,

the challenge would be about the mindset, the readiness of the people, to deal with the new era of doing work.

Do you think your role is more supporting or hindering you, personally in executing the organization innovation activities under you?

I don't see it as hindering. I see it as supporting. It is very critical in fact. Not just me, through my role, and the rest of my team in HR. And to include the leadership team too, at the C-Level.

How is the changes, organization innovation being done in TM being measured? Other than the fact that you mentioned, bringing cost down, making things more efficient. Is there any other means of measurements of the changes that is happening? For example, you mentioned, under the work segmentation, the example you gave, about workers going back early., do you see those that goes back early performing better, collaborating better, team work better, is there any other forms of measurements other than the lowering cost and increasing efficiency?

I think, there is a lot of measurements. Measure in terms of milestones. In fact of of the things, if you look at the right side, the happiness that I mentioned, we are going to launch an app which measure happiness in real time. So we will be able to know real time. For example, do you know at some areas, outlets or immersion when you are done dealing with them, there is a machine that has a smiley face and alike. We are going to have a very simple app like that we are going to launch next week. Basically, what the app does is at any time, an employee can just give their feelings, their happiness, whether they are happy or not on anything. We will then categorize them into different different categories for us to take action. For example, is it about people, is it about work place, is it about process, and so on. SO, what will happen is that, suddenly you will be able to see this happy meter per say, like the temperature. For example, right after this, right after talking to you, or while talking to you, I feel good because I am able to contribute to your work, for example. I feel happy. I can straight away do a rating, go to the app and do a rating. Then, it will appear at the dashboard, at the central to see of which we can see by state, by division, by the whole

group so we know what are the issues. We hope with that, is a clear measure of happiness of the whole 26000 people.

Since you mentioned that, it is interesting that such an app is being executed. How do you encourage people to actually want to contribute to providing how they feel to the app?

Good point. You see, we cant force peple. WE don't force people to do Instagram, but people will do Instagram. WE don't force people to play facebook, but people play facebook. So, why do people want to participate? That is exactly what I am sking to my team too. And as I said, in a digital organization, we need to learn and improve, learn and improve. So, we are going to launch anyway. We want to see the take up rate. There were also suggestion to me to put some gamification where people give a lot of feedback to give them something. As for me, I have my own view about "bribing". I do not like. But maybe if we were to adopt a point based system, and level based and add some gamification. To that extent, I am ok. But to give vouchers, I am not interested.

So, we will launch anyway and we will learn. For me, would 'you guys' be interested to know about your own company? Of course, that is ideal. Not everyone will think the way I think. But lets see how it goes. Because I think people will want to play if they see their contribution that are giving impact. But if were to just do a survey, but there is no change. It still remains the same, people will say it was a waste of their time.

So, it is also a challenge to my team to make sure, people are saying, people have given their views, so what are we doing about it. Because, I don't know whether I have updated you before, we have stopped using the Towers Whats on engagement Survey that we used years after years. The result that TM had for the past 5 years, we have been achieving 92 / 93 score. Which is so high. When I was in MAXIS when we scored 80, we would have been happy. The global standard is typically about 85 /87. But, along the way, what TM has done is that, if you don't give a good score, you wont get a good bonus. It cant be that way. People will cheat. In the real sense, people are not happy. I am not going to use it for bonus. I am going to use it to understand what are you feeling. That would test us to see whether or not, we do nothing about it,

Is this particular app or initiative directly under you?

Yes. Directly under me. The app is called SMILE.

Transcription 9

Role?

I am actually heading the, my designation is vice president customer experience management. What I do is I manage all the customer experiences across. Meaning from the consumers space or the corporate space.

Customer experience means?

Customer experience means more of the pre sales, or rather, the sales, right up to the post sales. We do not do sales activities, I do not manage the resellers. But we start taking it on from the ordering. So, the fulfilment, we will do it. Right through to after sales, billing and support on technical problems.

The 11th Floor in TM ONE building is a little bit interesting. We at CX, by the way, my division is called CX, Customer Experience Division. The chief of customer experience is actually En Azhar Omar. I report to him. He manage 2 important customers, internally, who is unifi, which is the consumer's lot; and TM One, which is the corporate lot. Now, it is also interesting, TM One also operates contact center business, a BPO service. So, what happens, is that we, TM, after the lot outsource their customer experience to CX, CX then contract it with TM One as the contractor for the operations. Of course, the contractor here is the BPO arm of TM One.

So, the floor that you visited, is actually the BPO operations of TM One. They manage the customer experience for unifi. For voice, as well as digital channels.

And prior to TM, how long have you been in TM?

Since 1990.

How deeply involved are you in TM's organization innovation initiatives?

The 3 headline KPI for the new CEO, in fact, our 3 headline KPI as far as the BOD is concerned, is revenue, profit and customer experience. So, this is what our senior management monitors very closely. So, from the headline KPI, of course, it will be cascaded down, hence it is about both operations and innovation. So, when you talk about innovation, there are innovations that can be done in the operational space. Of course, there are innovations that is going to come in big which is more than the dedicated innovation team that has to go in as it involves more investment. So that is when CX under En Azhar Omar, where he has two arms, two teams, one is the management team; which is me running the operations and do whatever tweaking that I need to do for the nation. It cuts across the States, as well as the innovation arm. It does more of the digital or whatever that needs to be in place to complement.

With all the changes that is happening, within TM, especially with DS Shaz coming in, how important do you think is organization innovation in TM and where do you think organization innovation has been most affective in transofming TM?

With DS Shaz, definitely with the new management, I must say, new leadership, obviously innovation is key. Because, the new management DS Shaz comes in, he does not change the original plan of TM, which is moving into digital and convergence. All he does is he fast tracked it. Because, to him, if you believe you want to go to digital, you want to go now. You cant wait until two or three years down the road. So, that is what he is doing now. So, he is actually, faster-ning the summaratzation of some of the processes by digitizing them and that is how he is running it across the organization. Not limited to just unifi segment only, for example, not touching the corporate segment; he does it all.

Internally, for example, our HR, finance, we are digitizing a lot of steps.

So, digitizing means putting processes into technology or how?

What we do, we used to be very manually based organization and what happened is we are changing it slowly; whatever we can convert into digital can not be done over

night; so things that had happened happened. But with DS Shaz, he just make it even faster, I mean, seeing what ever area he can facilitate as the GCEO.

Does your team look at, or anyone in TM, looks at the internal customer experience using these digital tools?

Yes. What we do, we also do, we call it VOE, Voice of Employee. WE had VOC earlier, Voice of Customer, which is very much the NES and NPS, which is already in place. Now, at the end of last year, we had introduced VOE. Which is employee satisfaction that will hopefully further enhance the way we serve internally which will ultimaltey go out to the customers.

With all the digitization that has been happening since DS Shaz came in, where do you think that innovation has been most affective or making any positive change?

What we have is, we have also created a chief digital officer. So that is actually for the company. The CDO actually reports to DS Shaz. This is where it cuts across innovation internally, as well as opportunity to sell out and productize it. And we, for example, the CX team, we are actually taking on, for example, from the innovation has something that touches the customer experience portion, we will take up. For example, setting up a community, for example. To manage the customer expreince, so that it does not come the contact senter all the time. How the digital portal can come in to improve the billing performance, collection performance, for example. So, we pick it up and it is tied to the company's digital plan.

So, with all these changes, or digitization across the board of TM, where do you think it has been most effective?

I think the area that has been most effective, I guess it depends on how yu define most effective.

Effective meaning making things faster, processes are changed to make sure that things are done more efficiently, people are talking to each other, If silo's are broken within the organisatin is also positive.

Probably the adoption of FLOW. This is digital and adopting innovation at the same time. We no longer use whatsapp in the organization. What we use, the unified comm is actually FLOW. And that cuts across all levels. And that removes the hurdles. Because there are different groups that is being set up and its being monitored. Communiations there is considered to fast track decision making. So, you got various groups. And they are all registered in FLOW. Which is very much, our internal comms. Which no longer e-mail. There is still e-mail but faster decision making is actually done through FLOW. We even can get the bosses to decide in there.

So, do you see faster decision making done in FLOW?

In some areas, yes. For example, communications out to the customer, if there have been any outages, ir anything that needs to go out, because this is communiication outward to the customers, we have to be very careful. The right choice of words, so there may be a few iterations actually. It is not going to be a one time correct kind of communications. So, we have in there, the business is there, the Comms Comm guys is there, the technical person is there, So it is all done at the highest level. TO make sure that communications are correct.

What do you think are the biggest challenges that the company face or you face, and with all the changes that is happening in TM?

We still have a big percentage, who are not to say, not digital but, probably don't ...are not digital savvy, so to speak. So, forcing them and getting them in may not be as fast as we expect the outcome to be like. So, that is a challenge, and symmetrizing some of the processes, is also can be a challenge because, we are still legacy. We are still carry the legacy systems with us. So, those are the biggest challenge that we are coping right now.

Do you see your role is CX supporting or hindering the execution of overall organization innovation in TM?

Definitely. We prioritize external, and to begin with, whatever, feedback from external, which is now readily available, we will use that back to improve things as we go along. That is on reactive mode. But at the same time, we also have the proactive mode as well. The sentiments that we get from social media, all these are data points that we are using right now to cross check, so, it is looking good I think.

How is organization innovation measured in TM?

Because we have 2 groups right. One group is doing the innovation. So they do project management. They do the development side.

On my side how do measure the effective of these innovation. For example, NES (net experience score), measure satisfaction at every interaction. This is a transaction based measurement that had given us a place to improve. Because, I give you an example, like the people in the contact center, for example, or those that installs, the one that goes to the homes, people at TM Point, the customer inter facing agents; they do a lot of good stuff and it is not for them to say that they have done a good job, right. The customer would then say, good or bad, right. So, that is the NES that we do, randomly, and it is tied to the staff. So, if it was me that answered the call, I will be the one that will get the NES score. My own NES score. At the end of the day, at the end of the month, we can actually see, who, at the contact center agent that is very good with the highest NES score. The score is obtained via sms form the customers. The customers will then rate between 1 to 10. So, it actually creates the competition, because we have young, matured, those that have been in TM for a very long time; so this is where it motivates. And you will see how this self motivation motivate them, amongst their peers; to actually give the right outcome for us.

We monitor that. So at any point in time, when we see through this channel with this topic that the interaction gives us a low score, so we know what have been done these effectively or not. This is in place in various channels.

So, that I show our involvement is. Being good in the lab or being good in the development stage, does not mean it is good once it is rolled out. My team is involved in the development but we do not play a key role. We are giving inputs so that they can manage the partner accordingly or whatever that needs to be done. But the minute it is put in operation, then it is my team, the change management is taken into consideration, so that it is being rolled out effectively.

We have also moved into the mind set change as well. In CX, we also execute, service culture change. This goes a long way.

What do you mean by mind set change?

We have technical and we have mental. So whatever you do, you are very kpi driven and a very technical measure. At the same time, the one that has the problem is the mindset that is not ready for a change, for example. And in our CX team, we have a team that goes all out to everybody, to every channel, and actually educate them to change their mindset. So, we have a lot of programs. So, one program is that we play with their emotions. We make them realize that how important is this. Is not about the NES measure, it is about how you value yourself. Because when you do good to others, it is about you being good at the next moment. If you ill-treat a customer, it is you that are destroying your own self. It does not matter what NES score you get, that is just the technical portion of it. So, we play on that sentiment, on the emotional sentiment. It is not easy. It is painful. But I think it is bearing fruit, because, many of us are arrogant without realizing it. The fundamental basic is back to our inner selves. That is officialized. And it is not under HR. Because if it is under HR, it will be about the people's attitude, this is actually about the service attitude.

Who decided where it falls under? How did this fall under you, as in normal circumstances, anything to do with employees in general, will fall under HR.

Culture is very difficult to change, as we all know. And there are a few types of culture. For example, company culture, the SHELL people culture, you can see how they carry themselves; Government culture, we know how, and in TM, we are trying to mold a culture which is very difficult to ascertain a certain culture, but we believe that lets

attack form the service culture, position under CX. So that the population of TM does not confused. So we come from the service angle, and once you come from the service angle, of course, you are controlled under the service but it is easier for people to grasps.

So, the decision did not come the GCEO, it came from us. We have been doing this for the last few years, service culture is also to support whatever you want to roll out. Which is also managing change management. It is not limited to only the CX staff. Because you have the people at the TM Point who are not a CX staff but we have to make sure that they are cultured correctly. The way we want it to be. From the service perspective.

What specifically do you do and your role in TM One?

Now I am doing product development. So currently I am developing IoT based products, solutions. So basically, the product owner will design the high level concept of the product and we see some business opportunities. Those requirements are given to us and we will come up with the technical design, come up with the architecture, run lab tests. And once the results are all ok, we can update the management that this product can be released as per business plan.

I am a techie.

What are your past experience?

I am a scholar from the TM Foundation and I joined TM in 2010. I was given the opportunity to join a fast track program, so I moved around TM for 3 years. So, I did technical, I did sales, met customers as well as strategy. Once that was done, I went for an assessment and then I was upgraded to a manager position. The fast track program helps to accelerate your growth.

Do you know what an organizational innovation is?

I have not heard of the term organizational innovation, but as I was promoted to be a manager, TM wanted to do a startup with TM before the current consolidation. VADS Life (the startup from within TM) was focusing on smart cities. So, we will look at IoT's and big data and alike, and you cannot run away from papers discussing about innovation. Why is innovation so important in your company? Perhaps when TM did the VADS Life, TM wanted to inculcate this innovation. It is something like, you are a part of the big organization, process and whatever, but VADS Life, is more like a startup. You explore new things. But, unluckily, it did not work out. Because the issues is that, you want this group to be like a startup but you bog them down with all the process, approval here and there, certain designs requires, you know. It ended up that the whole idea becoming, .. the challenge is good but at times, the rules are too strict.

To tie up with the mother company, that company will never work. So they have consolidated, VADS Life is closed down and now they initiated this new department and brought it back into TM. It will not be a startup culture anymore. But we are looking into all these new things, stuffs, smart cities and alike.

So, you do all the testing and rolling out. What about strategies, ideas?

Basically, ideas come from product owners. They are the ones that needs to the studies and what I understanding from strategy is market positioning, competitive landscape, pricing comparison, so basically they will do this. I do not do all that.

How long do you take to test the products you develop?

The current exercise, we are targeting about 3 months for development and 1 month for testing and I only do technical testing and I do this within the cost structure that they set.

Do you provide feedback?

Yes, we do but on a case by case. For example, the issue where the design was very plain and cost effective. But from a technical perspective, we tell them that perhaps, yes, it is doable, but some areas was not considered. Such as back up. If this particular link is broken, how? Is that part of our offering? So, we give such feedbacks.

Do they listen to your feedbacks?

Basically, they accept it but they will tie it back down to what was budgeted in their business case.

I explained that organizational innovation is.

Do you think, with all the changes that is taking place in TM, do you think it is affective? Where is the biggest place do you see organizational innovation is happening in TM?

There is a new group. They call it, the digitalization group. Before, if I am not mistaken, one of the test bed for innovation was VADS Life. But it did not work because, it was stuck with process. VADS Life started in 2014. And it was closed down in 2018.

REE was another group that would adopt a sandbox approach to test new ideas. It is under the TM Group.

So, this digitalization has become a big program form the new CEO, Shazali and he want this to happen. In HQ, there is a big team in HQ and each of the LOB has a unit that focuses on digitalization. When it comes to digitalization, what they want to see is what you mentioned just now, maybe product. For people like me, we develop the new product. But at times, there are processes that will make life easier to allow us to do things from a to z. And if need to simplify it, we simplify it. If we need to change policy, we change the policy. In the end, it is all about cost, quality and time. Improvements in these 3 things. So, innovation through that.

And we are hearing some quite interesting things coming from this group.

How long has this group been around?

This group has been around for about 1 year plus. And this group is totally and completely different from the group in VADS Life.

Over the last one year, what are the major things that they have done?

For example, they introduced this one thing. Now communication is mainly through whatsapp. So, they introduced a new app, it is just for TM. It is like a whatsapp. So, the purpose of the app is to allow linkages to specific people for a specific project and we communicate through that app. The purpose is to management time better. Faster decision making.

Do the bosses use this app?

Yes, they do. But the issues is, well, the app is called FLOW, the app was developed to simplify communications with other people. If there are issues, anyone can help resolve that issue. But some people use the app to just to .. like, if the Tan Sri or CEO replies in the app, they will like the posting or alike. And with that, some re saying that it would be better off to not to FLOW we do BLOW. But they are making progress.

Before this, REE, their objective was quite interesting. Basically, if there is anyone out there that has an idea, come to TM, And TM will provide the infrastructure and alike. TM will also provide some grants, and when you leave, your product is released, and TM may have a share or in any form. A part of the spin off. But I did not see anything interesting coming out from there. REE has been around for about 4 years. And it is still running.

What are the problems you are facing with organizational innovation?

Basically, we are, if you ask me, my team, I consider as innovation. Because, telecommunication, we sell only communication products. We sell lines, we sell whatever, like internet and what nots. Now we are going into analytics business, IoT business, big data business. So that is how we are innovating our products offerings right now. The issue there is, man power and capacity (capability). We have been train; our technical knowledge is mainly to do network type works. All this while, we have been designing networks, for example. And we know how to operate the networks. Right now, we have to go ourselves to learn how to develop the code. Right now, the direction is to reduce the amount of money going to the partners. If you can do inhouse, yes, we do inhouse. Like my boss, he wants to do it inhouse and literally, he configured many things form his own home.

Is that a good thing or a bad thing?

To do it in house is a good thing. But we need to have to find the right people, they don't have to be smart but as long as they are keen but they need to train them. Because the second one, I see it like, there are some bosses that will say, you go learn it yourself. If I can configure ... so that is the gap that I see.

How is it being solved?

Right now, we do ourselves. Trial and error.

Do you tell your boss that you need training and etc?

Yes. We have started to plan, and they support.

As a Manager, do you encourage your team on innovation?

I will encourage my team.

How do you know the organizational innovation activity you are doing is good?

For me, now, our business, telecommunication is already saturated. So, my team, the products we need to give new solution, new revenue so I measure based on take up rates that includes revenue, a new revenue coming into the organization.

So, tell me what you do in TM UK?

Ok, so, at the moment, I support the technical manager. So basically that means provisioning and testing new carriers, quality monitoring of our routes that we are selling to our customers, erasing and investigating any trouble tickets that we get from our customers, guide them to our data centers, doing work there for TM HQ when they need anything done.

Are you involved in giving any inputs to HQ with regards to make TM UK more efficient?

Do you mean for example that if I have an idea and it would bring value to HQ, or to my equivalent there and I say, look, I have this idea that we do here in the UK, you might want to implement it.? I have not done it as yet, but I know that the options are there. And we are always like, you know, whenever we go for training, you might find out something, like, how you record trouble tickets, for example. And we use this local system that we so and then I think, hang on, we have not got anything like that, so we might use it. So that actually happened in the last course I went to. So yeah, that are the examples really.

So, there is an opportunity or a channel.

Yes.

How long have you been with TM?

Since December 2013.

In 2013, were there any avenues for you to bring these ideas up?

Its just talking to colleagues or an email or a whatsapp or when you get to training courses, you have meetings and when you hear about something that you do at our

office but you do it a different way, and then you say, hang on a minute. They do it in a different way and the way I do it is different and perhaps a bit better or more streamlined.

In terms of response time, as compared to using emails and using apps today? With FLOW, do you think that the feedback loop the opportunity to voice out ideas is better, the feedback is faster?

Yeah. I think it is actually. I don't know if anyone else has said that but, first in the UK, because of the time difference, we find our phones going off at 3 or 4 o'clock in the morning and someone over there had an idea and everyone starts responding. So I think FLOW is quite a good avenue coz I think now people are so attached to their phones, when you say something on there, you get a response almost instantaneously. It is a good way.

Do you feel, in your role, that you are able to contribute to make TM more efficient, not necessarily within your specific job that you do, but in general?

Well, you can say it to someone, that I have this idea, whether they implement it though, that is a different thing, right? You can say to someone that you have got this idea, we do xyz, and you say it to them, and they will go away thinking it is a good idea but they may speak to someone and they say, it may be not. And then, that's it, it stops. So maybe, once yo might say something, suggest it and then you see don't see it getting implemented, then the next time you might be a but reluctant to do it coz' you think, hang on, I have said something before, but there was no action.

Has there been occasion that you were doing something else, than you think, hey hang on, BT is doing it, maybe TM should do it? Has there been any occasion you come across that? Have you been in that situation?

Not as yet.

Over the last, since 2013, during TS Zam's time, D Bazlan came recently and then DS Shaz, and since then you got 2 new big boss, with new bosses comes

new things; do you see these new initiatives they are bringing, for example, convergence strategy, do you think this is making TM better? Bringing the likes of FLOW, GLOW, GROW, ... do you think that these are making TM employees more efficient, share more information; do you think that is happening in TM?

Definitely. Definitely with the FLOW. Like I mentioned earlier, people are on their phone for a huge part of the day. So if something goes on to FLOW, people are very responsive in there as well.

As of 2013, till now, what do you see the biggest change that is happening in TM? Apart from products. More like policy, process, people, collaboration, communications; do you see a major change that has happened since 2013?

So it cant be product related coz I would have straight away would have said, the downturn in voice, as product; it was big in 2013 and over the year, it is kinda like ..
So, how fast do you think, from 2013 till 2018, how fast do you think TM has reacted to coming up with a new product?

I think it has been very quick. As you can see now they are focusing on data. They are moving as quickly as technology changes to keep up with that. It is not like there is a lul in between one product to the next. So, I would say yes, it has been pretty quick.

Do you see any positive or negative changes with all these new means of communications, or increasing efficiency, reducing costs, increasing profits; do you see all these changes having any positive or negative change in TM as a whole?

*I don't think there has been massive changes, **ok, what changes have you seen over the last 5 years?** It used to be that the regional offices are normally responsible for our own hardware, our own software, but not it is going to be centralized at HQ. That is going to be a massive change. That is happening quite imminently. We are going through like, having all control here, it is all going to go to HQ. So, that is going to be a big change. **Technically, you lose control over the switches. So, what happens to you guys? What happens to you and if you are a tech team here, and***

that control is off your hands., then what happens to you? We will still going to be in TM but our roles are going to change probably quite a bit. So, it is getting into that mind set thinking, right, the roles are going to change but I am still going to have that same attitude the same passion working for TM but it is just you need to get ready for that change in the horizon. **So do you think it is a positive change to get your back end centralized?** Like everything, I think its pros and its cons. When were went for training back in KL, we actually went for a brain storming session and we said, whats the pros and the cons of having a centralized switching. It it was quite a concession putting gup our concerns, and out of that, they actually said that we can have some control. It wont be full control but we would have some control. So, yeah. **But personally, do you think this is a positive change that would make TM more efficient?** I think so. It it would come out of our main office, it would be like, everything is there and there wont be a case of things being scattered here and having to pay so much of maintenance costs, 3,4,5 times; this is just one costs; coz it is all in one palce. So, I guess in that side, it is appositive change. As time goes on and it gets implemented, then only you will really know if it is going to be a fully positive or potentially negative change as time goes on.

With all this app that is going about, I heard that the CEO came in and started a jedi council, literally having a bunch of people looking at how things can get executed within TM as a group, to make it more efficient, reducing costs, breaking the silo's, making sure that all parties are collaborating, such as that things like FLOW comes out; How do you find apps like this? Is it really helping you to make your work more, make your work better, make it more efficient, do you find these apps and any other activities to make your life better as an employee of TM?

In particular, the FLOW, yeah, Its good. Its like, instead of going to one person to ask one thing, you have got everyone there. So many people are on there. You put something forward, you ask something, you will get a response straight away. And I think that is good when you can have that.

When you cay fast, it is relative, can you like compare? Before you would be sending it via email, how long does it take for a someone to reply versus now?

It is so much quicker. 10 days then. 1 day now.

What do you think are the major challenges that, you think TM as a whole, generally or specifically, TM UK, that you will face in bringing in all these new changes in TM? Convergence is something new. So there is a lot of changes that is happening, convergence is not an easy thing to do. I mean, you are bringing in 4 different aspects into 1, which changes your role, which changes so many other people's role; so what do you think the kind of challenges, you foresee or you are facing now already with regards to all these changes.

I think it is like, when I was saying about the centralizing of the switches, it is adapting to that change. You got to have a positive mindset. And I guess knowing all these changes is going to bring, so you can prepare yourself mentally.

But do you fear you may be losing your job?

No. no. no. No its not.

Why is that?

I think what is going to happen is like, no one has come out and said anything yet and with TM UK and TM, there are very transparent, and I guess if something was going to happen they would have said. I mean, even with this whole centralized thing, that was never said. What they kinda said I that your roles are going to change, and it might be a bit different, it might be a bit that. And, ok fine. It does not bug me.

What is your role in TM UK?

It is sales and business development. Business development is about bringing new customers on, voice customers, data customers, and now, in the future, it is going to be enterprise as well. So really, if you take an example of a voice customer we already have the connections with BT, Orange but it would actually business development within central and eastern Europe. That is where I am based (I work from home there. But looking at the central and eastern European market as well central Asia). So, we are looking to bring in some new customers. And before TM UK, I was in a company called GTS in the Czech Republic. And before that, was Contact Tel, GTS acquired Contact Tel. But my original position was a foreign exchange dealer here in the city for 4 years. So I was in the currency markets. So now I am trading minutes instead of currency.

I have been in TM for 11 years now.

Are you involved in any of TM's organization innovation initiatives?

Yes, in a way. Because, I think, obviously, we are moving into the enterprise side; we used to just look after the legacy voice and data business but it is not moving into enterprise. Enterprise meaning, working with Malaysian enterprises within London and EU and looking at solutions such as, moving into IoT. And other bundled solutions as well.

It is important to work with the Malaysian enterprise because they may be a preference to come to TM rather than use BT or any other alternatives.

How important do you think ORGANIZATION INNOVATION is with TM and where do you think it has been most effective in this continued transformation

I feel that, convergence is a big, there has been a big push on the convergence side within TM. So, to be honest with you, what we are looking to do is European customers

and central and eastern customers come to TM and they just see us as Malaysia based. They see us as a gateway to the asean region. So, obviously we have our subsidiaries within Asian. So not only enterprises can come to TM and just look at Malaysia. But we open up into Indonesia, Thailand, Vietnam, the whole SEA region. So, in a way, as long as we are price competitive, we can compete with the China Telecoms. Why go to them when you have TM at your door steps.

Do you guys set the price or is it done by HQ

HQ has a pricing structure but it is based on market intelligence that we have received from the region. So we would come in obviously at market price and obviously the price in the US would be different from UK. So, we come in with the market intelligence and we go to HQ and then set a structure on the price. Obviously we have to secure a margin, a good margin to sell. But then, they will look at it and obviously come back to us saying if it is a go or no go. If it is a no go, we will relook at it and we go back to the customer and we tell them that this is our price and we cant go any lower. So they would have to look into different business models. So, maybe you can bring in a few other products and to build an ecosystems and bundle tings together and to work on other solutions. This is a pretty new initiatives, but more or less, the guidelines are set from HQ. Enterprise is really new for us so we would get the support from HQ. And then for us, it would be to really start the project from here and the final decision will obviously from Malaysia. It is important to get a good solution where I would also need to get collaboration from the local ISP as well. You would have to set up the whole project yourself and if it works, it would be a yes o no from HQ.

HQ do get feedback from us all the time. WE are in the look. We have our product divisions and we have a new products division called BEC, or Beyond Connectivity. So that is related to enterprise business. Because we started about a couple of years ago, the BEC is really our product arm that has really given us good support and systems.

Again, with all the changes happening in TM, new apps being developed, FLOW, how impactful has it been?

Yeah, I think everyone is moving into the digital side right now, everything is digital now, as I was telling you. Everything is less paper now and in a way, it is helping us because everything is online. Another one is sales force for data. So, if you have any sales funnels in the data side, you just upload it into sales force and it is there, it is logged, it is safe. Otherwise, you are just tracing through emails. It is interesting actually. In the last couple of years, it has been a great way to log in all our data request coming in and you can also use it for voice as well. SAP will also be implemented.

I believe it is helping us. It is moving faster. And we are going through another migration at the moment, so rather than having the switches here in London; that will now be an SPC in London and then all the voice business will be managed from Malaysia. So we will be going back to the one centralized switch in Malaysia. We will still have access for our customers, you know, to change routing, we are going through that migration at the moment, So it is called an IPX migration. So everything will be on IPX and the switch will be based in Malaysia. That migration is happening now, within the next 2 months. But from the systems point of view, it is much easier using the systems. Obviously you need training on the first but I think once its in, for instance, an order, sales funnel is in sales force, then the team in Malaysia can review it as well because they have access too.

How has the changes in processes, in policies or coming out with new products and services affects the business in TM UK?

Yeah. I was just pointing out one example, the Malaysian enterprises because this is an initiative that is just 2 to 3 years old. And we did have a seminar at the Malaysia High Commission at Malaysia Hall and that was inviting all the Malaysian enterprises from the UK and in that seminar, our EVP and TS Zam as well attended and spoke at the seminar. And that gave us a great exposure because, some new customers will look and say that I didn't know that TM was doing this or I didn't know that you had that in your portfolio. So really, it was a great seminar because we got a lot more feedback saying that TM are really looking aggressively into the enterprise. So when you had the seminar and you are moving towards the convergence side of the

business; it gives an insight into the Malaysian enterprise on what you are doing. And that has been the benefit for us.

Do you find the new apps introduce internally useful?

Yes. Absolutely. WE use it for our KPI's as well. That used to be on a separate system but now you can do your kpi's from your phone. And inputting information there. It is important for the changes in the hierarchy as well. Because you have access to every employee in the app. So it becomes difficult when you are working in one department and you may not know all the names in that department, you can see that on the app.

Do you think it breaks the silos? *Yes. Yes. I think the important word for us now is "being agile" in TM. Because that is echoed down. And we understand that as well.*

The only concern I have is everybody echoing the same word because that is what the bosses are saying or is it like a buzz word? Especially in Malaysian context, people want to be seen supporting the bosses and not really understanding the essence of being agile.

I can understand why people say that but I think it has been explained by management what they mean by agile and in the ever changing industry we are in. I mean, I just started just in voice but I have seen what the difference is. And when going to meetings, more often we are discussing more than one product, why not have a list of 5 or 6 because it just makes sense.

Do they provide avenues or ideas of recommending new ways of doing things? Or introduce new startups that maybe TM can take over? Do they provide that kind of channel?

They do actually. Funny that you say that there is this one new product that we are looking to push out at the moment. When the management were here and it I something that can be applicable to developing nations within central Asia maybe Africa who have the old fashion copper lines, like before. And there are a lot more new products coming into the market. So, the idea is there. New products and new initiatives are important. So there is a channel in TM to bring up this new ideas,

absolutely. And to be honest with you, any ideas that comes, its never a no. Its always, lets see. There is always an avenue. And we use our other teams within Malaysia, the data teams, the product teams, the BEC, then three departments will work together on a solution and then, we can promote.

How fast does that happen?

It depends. If there is some restructuring within TM Enterprise or TM One, it can take time because they have to see if it is going to be a product that we can then sell on within Malaysia. Is it going to be ready for the market in Indonesia, Malaysia? But, at the moment, not because we are in the initial stages, we are half way through the enterprise ide of the business. So we are looking for a solution that is going to be concrete. We don't want to specifically for just one customer. Is it going to be a value added service for the whole region?

But the interaction between all the division is very good. Because, obviously we need the assistance from Malaysia and they need the market intelligence in terms of what is happening here.

Do you see a difference between then and now? In terms of how people react or how fast people react or how slow people react?

I mean, we have always had support from HQ on this. Any new ideas. And it doesn't have to be predominantly on the enterprise side, it can be any idea. The turnaround there was good. Any new products needs time to be testing unlike the traditional voice carrier. But I think within 6 months we had client live and active. And it has been good support. We have a product manager for our products. We are constantly having conference calls. Every week to keep in alignment really.

In your day to day work, do you see your role supporting organization innovation in TM?

Yes, I think, it used to be just a voice sale in business development role. But now it has evolved a lot into data, enterprise, SMS, LNS. So really, it has changed a lot. So

we are always in close contact with Bhavin as well, so. The role has changed a lot. Higher workloads. It used to be 80% voice 20% data. But now it is about 50% voice, 30% data 20% BEC. And you still have the LNS, SMS, in between. So, in a way, it's a one point contact for customers now. We are actually also building the team. We realize that enterprise, we still need some, possibly training on enterprise because it is a new area for us. We need the technical expertise as well. So we have our team training up on enterprise. So it is something new and as you said before, listening to what the enterprise customers are looking for. It is very important. Are we cost effective or can we offer that solutions.

What is your role in TM?

I am taking care of the campaign management system. We do EDM, SMS blasting to customer, and also database management. U have been with TM for around 15 years.

Are you involved in TM's organization innovation or the changes that is happening in TM?

Indirectly involved, because we are, will be affected from the changes. We are more of a supporting role. I am a decision maker but I have to support the new structure. Support here means, whatever role I am doing now, I might have to multiple the responsibilities. Or even diversify the functions of whatever my team is doing to support the changes.

How important do you think that is happening

The market has been rapidly changing. The customer demand is different. The competitors are really aggressive now. So what TM is doing is not to miss the boat of digitalization where most of the people now is into their mobile phones. Most of the activities are done via mobile. So, TM has embarked into this digitalization so that it is in touch with the customers easier. So, the innovation that takes place is more towards convergence, mix services with mobility.

Where do you think organization innovation has been most effective?

*In terms of convergence itself, previous CEO already started it. So now, it is even going on a faster pace, with our new CEO. Because he focus more on digitalization. So, the market can see more apps. In the past 6 months, a lot of things has been done. Even the digital team in TM has been growing. And they have to support the very fast changing decisions by the top leaders. The dynamic market that they are facing now. **Do you think the speed of decision making is the major change in TM?** It is less than half a year ago. And if I focus on the digital apps. Like the wifi app,*

mobile app. The main apps that has been released into the market. And also internally within TM, there are a lot of effort is being enabled via app. So that we can actually communicate and do our tasks, anytime , anywhere. **So do you think there is an increase in efficiency among the people in TM?** In a way, yes. But TM is a very big organization and I believe that it is not that holistically impact everyone. Only related departments who needs to work around the clock. These are the people that would benefit from the changes.

Do you see the changes creating more team work, collaborating more across TM. DO you think it is making it easier?

I am seeing that the collaboration between the top leaders is being more effective. IN a sense that is more effective and more secured. The conversation is secured. Because it is using our internal application. So, there is less chance of, you know when we use whatsapp, there is a chance of information being leaked out. So that is where our DS came in and said we should use less whatsapp and more sensitive information should be discussed in our own applications.

Do you know of any other apps or programs that is being rolled out internally to try and increase collaboration, to try and increase more team work, to increase efficiency. Is there any offline type programs of activities,

We do have the agile community. Where, consultants are here to assists TM. Because agile is actually how we could achieve, come up with digital apps in a short period of time, enhancement of systems in a short period of time. It is all supported by the agile way of working. This is the practice that has been started actively since last year adn it seems to be very affective the way it is conducted. **Do you think it is also increasing efficiency, team work, collaboration across TM?** Yes. Definitely, because through this agile community, whatever, they are tribes, squads, it consists of people from multiple divisions, so it makes things easier, when those expertise are there to achieve the squads objectives. And the tribe's objectives.

What do you think are the main challenges?

*I won't call it challenges because innovations come in their own phase. As I mentioned before, TM consists of a very huge and from nation-wide, multiple states, multiple cultures, multiple ways of working. So, to implement this, it will definitely take time, in terms of human. Whoever is nearer to the HQ, yes, it can be implemented faster. But towards the other states, it will take a longer time in order to cultivate this new practice or agile. I believe we are going in the right direction, there is no challenge it seems. Because, whatever we can increase the market now, the people, the customers, there are so many alternate channels we can use. Before this, TM was dependent on customer coming to us. Call to our call center, or come to our contact center. But now, at that particular time, we can also eliminate it to zero because, you can live chat, customers can just live chat. Communicating to all our customers, on our services, support is done seamlessly via social media and other alternate channels. **Do you think it is more efficient doing it that way?** Yes. It is efficient. Because, people want solutions there and then, not that you can wait for a week or for 5 days. So, we do have an app, say a customer is facing an issue, half of TM can actually use this app, to immediately create a case for them, the particular customer, regardless of anywhere we are. As long as we have the connection, of course for our mobile app. So we can just key in the case and that case will be a priority for the technical team.*

Does your role support all these execution of new ways?

Basically, we are the middle person team between organization and the customers. We actually communicate to customers via these channels, email marketing, SMS, and also their in-app push. So we do play a very important role. Because whichever button that I press, it can either go to a small group to flow the information or it can go to the mass. And also it comes with all these basic tracking so that we can improve from time to time.

How are organization innovation being measured in TM?

I do not have a view on this but there are a few departments that actually collaborate to analyze and measure all these new initiatives, i.e. agile community, customer experience and management and also there is the TM 300, all the top leaders, i.e. GM

and above. These are the people that will be involved in these measurements. We are not directly involved in this.

What was the first that came to mind when you heard about this interview?

Development field. Development of the business in general, especially for us in TM UK.

I have been in TM for 7 years now. I joined TM in 2012.

What is your main role in TM UK?

Commercial and sales support. Sales supports basically helping the sales with day to day stuff they do and the commercial, I look after the pricing, the routing, commercial routing for TM UK.

In your day to day job, you would come across ideas or in talking to other friends or even talking to clients, you would come across ideas that TM has not done this and maybe I can bring it up and make TM overall a better company, which will make TM UK a better company. Have you come to the situation where you come across these instances?

Yeah. Actually we work on beyond connectivity last year. Beyond connectivity is a project, its probably things outside the telekom but still in communications, as in using the voice an stuff like that. So basically outside the field that we are doing day to day. So yeah, its kinda of a little bit more wide.

Do you have opportunities to connect to TM HQ or any other TM officers with these ideas that you may have?

Yeah, they already knew about it. Well, we were working in TM UK for this project. But in HQ, I believe they have the same kind of ideas. But they were working on different projects but the same base ideas.

New management, new things, so how do you find these things that is happening?

I haven't really .. that would probably be done at the highest level. So from my side, my role, and day to day thing, I haven't really seen any because that is done at the management side level. Not at my level.

Do you find the internal apps like GROW, FLOW effective?

*Definitely it is. Because it is an app or like a website where you can go to straight, you know where you going. **Do you provide ideas on how to make it even more useful?** We try. Yeah.*

Whenever the new management comes, do you have opportunities to bring up ideas to the management team at that point?

Yeah, we have like a meeting with them, if you want to call that. They open a session for questions and if there is any idea. I think TM, not just TM UK, I think the whole TM, they are open for new ideas.

Have you given any new ideas?

*For TM as a whole, no. But yeah, for my role, yeah. I always do try to create new things and to help me more efficient and to help me do quicker things. **How do you bring it up?** I bring it up to Bhavin. **How fast does Bhavin react?** He is very active on this kind of things. He is always ask us to bring in new ideas.*

Biggest challenge?

Maybe we are a small team here. That is the biggest challenge. And mainly we are doing sales. I think that is main challenge.

How do you find the apps being developed in TM?

I have GLOW and FLOW. To be honest, I have not used them. Probably once, I just uploaded a fun picture. They ok. They like kinda of useful in a way. They keep you in the atmosphere, what is happening in TM as a group. I think there are quite useful.

Comparing before and after the introduction of GROW? *Yeah. So now you would have find an email to staff that you don't actually have the email. You just log in and search, probably not as quicker than asking and asking people, you know. You just go straight to the app and type in the name and that's it. Job done.*

Bear in mind that TM is a global and a big company and there is a lot of messages, I mean, in hour it can reach 500 messages, for example. So, I don't really know if that is something really efficient. And people, especially management, will look at all the messages. It would be something not logical, I think. Coz I know for a fact, the people in TM HQ, they probably turn the app to silent, because there would be a lot of messages . I don't think everyone has a chance to look at everything. Sometimes, it can go up to thousands. So maybe within this thousand, maybe, 900 for fun and 100 serious messages, but they would get lost.

Role in TM

My current role is to provide leadership to a team of people comprising of sales, products, marketing, and everything else. Just like a company. That is my role. To provide leadership and guidance to them. We are divided into 3 business units now. The first one is called UNIFI. UNIFI looks into all the mass market, which includes consumers and sme's and small enterprises. So that is UNIFI. The 2nd one is TM Global that looks into all the service providers market. In Malaysia and also business outside Malaysia. The 3rd one is TM ONE. Which I am the lead now. Our coverage is the large enterprises that requires their accounts to be managed, by accounts executives and all the government departments and agencies. Those are the coverage in terms of customer segmentation in the market. So, I am leading the 3rd one, the TM ONE.

Prior to TM, I was in MAXIS for 10 yes and prior to that, I was in the army, retired. I was a captain, retired.

Involvement in organization innovation?

*I am heavily involved in my area, in TM ONE. But at the group, I am also involved in the committee called jedi. It stands for Jemaah digital. Its digital committee actually. Because we have 2 strategic thrust. 1 is convergence. In terms of our offerings, go to market and so on. 2 is go digital. So we are digitizing the company, what we call, digitization. And coming up with digitalization's offer. So, we can be doing digitization for internal but we may find opportunity for us to sell outside. **What does digitization internal mean?** It is all about process improvements. It is beyond automation. It is about cost savings. It is about stream lining what we do and simplification of the processes. It is all about making life easier for the staff and the people within TM. **In terms of customers?** It is the digitalization, digital offer. It can be applications ,it can be software, it can be new services. So we have 2. Digitization and digitalization. So, whatever we do internally, digitization, sometimes we have the opportunities to take this to market. Eg. We discourage the use of whatsapp in the company. But we have*

come up with our own messaging system. And then we found opportunities to sell this to customers. Because customers are also having the same pain point, their employees actually spend time on social network. Once they go to whatsapp, they spend about 30 minutes, I mean this is the research that we done, 30 minutes on social network. So the lesser they spend on whatsapp, the more productive they will be and so on. So this is innovation. Innovation is not about coming up with new. That is invention. Innovation is about improvement of existing processes, products, to offer productivity, to optimize our time and so on.

Kust to share with you, I started in TM as GM of Technology and innovation. I was involved with TS Zam actually in a few of this innovation initiatives that he explained to you. Which included working with Aziz of NEF, trying to bring in all this malay entrepreneurs and put them under a program, last time. Onboarding them. We know that a lot of this startups have the technology but they don't have the go to market platform. So we wanted to provide that platform to the ISV's. That was part of the initiative. Then the REE, I started but I left after that. I was from technology and innovation to move into digital products. This is when I developed unifi and so on. I am part of the innovation circle in TM earlier.

With all the changes and organization innovation in TM, where is it most effective?

Most ppl wants to do project. But when you do projects, you don't actually understand what the pain point is. What are the needs of the users and so on. More like self gratification. So, when this happens, it is not effective. The most effective is when you identify the user, understand the pain point and then work with the user. And to this, we have introduced a thing called design thinking in the company. We are actually applying design thinking and agile in coming up with innovation and so on. So, it is more effective because we work with users, we work with customers, understand the pain point and come up with a minimum viable product and then we test again and we do filteration. We believe that in innovation, we need to do fast, fail fast, we need to fail, and quickly fix them. So we subscribe to that now. I mean, but it is a very difficult concept for the older generation believes in products with business case, you fail, you don't have a second chance. But in innovation, you need to do this quickly. You need

to come up with an idea, work with a customer, design thinking. Come up with mvp, test, fail, come back to change. If we know it is not accepted, forget it. Move on.

So, this is something we want to inculcate in our culture today. We try to do this innovation outside the mainstream because if we do innovation with the main stream, very likely, I mean, I learn in Stanford that 90% of startup fail because the mainstream people don't believe in it. The mainstream people put a lot of condition. So when startup does it outside the mainstream, very likely they will succeed. These are the things I learn also.

You feel the initiatives are bringing a lot of impact to TM?

Yes. I would say that the biggest impact is in customer experience. Because, we have good products. And we have good people. Then we measure our customers happiness, our customer satisfaction index and so on, give us good outcomes. But we still receive complaints from customers. They don't jive. What customer tells us, what customers report, don't match. So, we try to understand. We go deeper and deeper. But by doing design thinking, working with customers, we are able to do this. I think this is important, customer experience, customer service because product we can always compete. But customer experience is something that we want to have to differentiate us from the rest. It is not cheap. It is very expensive. To move from last years, 75 points to 76 requires investments. It is not free. You may have to automate, digitize certain things. But along the way, they also offer better efficiency. Better productivity and so on. This is the balance we need to do.

But I would say the biggest impact would be in customer experience. 2ndly, in terms of going to market with new products.

Biggest challenge?

I think the culture. The culture is the biggest challenge. The culture is embedded in the people. TM has gone through an evolution from Jabatan Telekom Malaysia and then privatization and so on. I have been in TM for the last 12 years. I saw big change in the last 1 decade. I think to tell ppl to change when the company is doing well, is

very tough. To convince the people that we need to change now before we hit the wall, is even tougher. So, sometimes we have to stimulate or simulate needs for change. WE go division by division. We have to create burning platforms. We have to tell people that we are in dire need to change. I we don't change, will fail, we will become irrelevant. We illustrate, TS Zam use to use the river as an analogy. He said that the river has resided and can see the stones. So, you have to pour in more water. You need heavy rain. So you can cover that rocks. The stones are costs for example. Our costs is growing faster than our revenue. I mean, we have to create all these dire need to change.

How is it going on? Is the culture getting better?

I think the turning point was when TM demerge at 2008. That was the turning point. Suddenly we realize that the mobile biz was growing at that time. What was left with us was the fix business and at that time was declining. We were experiencing an 8 to 10 percent decline on an annual basis. Mobile was growing at a 30% at that time. People realized that we need to do something drastic. But that period was only for 3 years. The dire need for change. Suddenly we had HSBB, and then the company was growing at 11 to 12 percent. And then in the 6th year, the company was growing better than mobile. And mobile was declining. So, other people have gone through that and people understand but that 3 years period, I believe, has not reached towards the lowest level of the company. Because from my conversation with people in British Telecoms and so on, you feel the heat in 10 years, then everyone in the company will have that mentality of change.

But our period is 3 years, we were not at the lowest level of the company and when we went back up, many said it was nothing and nothing to be worried about. We recovered in 3 years. But now we are going through the same cycle. After 10 years, we have gone through this S Curve, the current S Curve has plateaued, saturated, so we need to create another S Curve. So that is the challenge that we have today. Finding that new S Curve.

Measuring?

There are 3 things that we measure. 1st is business health, 2nd is customers health and 3rd is about people's health. TM people. When we talk about business health, this is about revenue, about cost, about profitability. When we talk about customers health, this is about no of complaints, about CSI, about dream just now. So, when we talk about people's health, we do measure EEI (employee engagement index), we talk about talent management index, we talk about OHI (organizational health index). So there are a few measures that we use but, three measures is the business health, customers health and people's health's

Receptive is the BOD with regards to changes in TM?

I think the BOD is taking care of the shareholders interest. That is the BOD's duty. Protecting shareholders interest. Whatever we want to do, there is LOA set in the company. Different level has different authorities. But if the project is deemed as strategic, we have to go to the BOD.

The BOD is very supportive, but they want to see the plan, the return, and the risks associated with the project. The BOD is trained to look for this. It is all about governance, it is about risk management, it is about internal control.

In general, they are very supportive. They know that every projects has risks. But what is the risk level. And what are the mitigations that we have.

What is your role in TM

Finance and HR Manager for TM UK

Finance Manager , manage billing to customer, receive invoice vendors for billing, payroll

Used to study in London. Working as part timer to full timer.

What do u understand about organization innovation

From what I understand about organization innovation is it is Changes occurring so far since I start working until now to make our work more effective and efficient.

What in what areas have you seen?

Finance part – accounting system that we were using, when I start it was a standalone system which is SAGE, so every time HQ want a report, we have to manually extract the report and send it to them by email. That was 2007. In 2008 we change to server, they put Quickbook system in the server so that HQ can check as well. The problem is to access the server takes some time. To access from UK will take some time because it is cloud based system in Malaysia.

In 2013 we migrated to SAP system which is better. Better for us. We don't have to extract reports that much and consolidation manually.

From Tan Sri to Dato seri, with new bosses, they bring in new things or changes, what are the changes that they have done that affected you that u think is good?

Dato' Shaz, we think he really care about domestic service and image of TM. Ie. TM in Malaysia. He changed all the trademark to TMNet to Unify.

Another thing he introduced Hero App. Purpose of this App, any customer can complain/feedback to TM Staff regardless their department. TM staff can log on into this app, take picture about the problem and TM will take action. Example: if my neighbour complains about the box, I take a picture and upload the picture and upload the complain for the customer. So customer does not need to call TM anymore. If not action taken after few weeks we can text in Flow (similar like whatsapp msg service)

Flow is for internal use only. This process was introduced last year. Hero is used by the staff only. Purpose customer problems are escalated efficiently.

Vivi? TM Sim card. Last month I was in Malaysia/ It is easy, we don't have to go the shop to do top up. We can do the top up anywhere anytime. To order the sim, you order online, then the sim will be sent to you. Easy to top up. We don't have to go the shop to buy the sim card or top up the card. It is efficiency related.

All these changes that you have seen. How long do you see it's effective

How many it has improved. Has it shown efficiency

*Yes. Like recently we do KPI Achievement. Last time we communicate via email. This process is a bit slow especially we are here in London, 8 hours behind KL time. Now with flow, it is easy. So a group is created, for eg. To update on KPIs and they will say, please update on certain numbers, and then everybody will update and then HR will say, at this point in time, this is the percentage of being completed. Please chase this and that. It is faster now. **Compared to before, how long did it take before and now?** Before, it will take 2 to 3 days. But with FLOW, with all the bosses in there, they have to reply fast. If not, their Assistant GM would make noise. **Process or policy related, has there been any changes?** There is. But I don't know if the changes are due to the change in CEO or not. But there is constant changing in policy and processes.*

Does HQ provide the opportunity for you to give feedback?

Yes they do. Normally when there is a change in the bosses. That is when they will ask. Feedback is normally via email and is yearly monitored in our yearly meetings back in Malaysia.

When changes happen in HQ that affects TM UK, do you face any problems in executing it here?

Yes, normally there is.

What other major challenges?

The old generation, they are normally like don't really like to use these apps. Maybe it is easier for them to use papers.

Transcription 17

What specifically is your role in Telekom Malaysia Berhad?	Head of the payment channel
What are your past experiences?	Corporate sales. Taking care of sales and after-sales support for customers under logistic and aviation
How deeply involved are you in Telekom Malaysia's organisational innovation initiatives?	Significantly involved in the digital transformation towards cost-saving and to provide payment made easy to TM customers, e.g., online payment, autopay
How important is organisational innovation within Telekom Malaysia, and where has organisational innovation been most effective in the continued transformation of Telekom Malaysia?	Highly important to the organisation in order to accommodate customer request. Most importantly, to ensure organisational innovation contribute to the effectiveness of the initiatives while increasing productivity
How impactful has organisational innovation been to Telekom Malaysia, and where have you seen the most effective positive change?	The impact is related to cost-saving to the company, which also adapting digital transformation for both TM staff and customers.
What programmes are in place to execute organisational innovation in Telekom Malaysia?	Programmes, such as agile, being introduced to the staff to encourage staff to involve with a project and deliver outside from the current KPI. This is an extra mile rendered by the staff to achieve the target of each project
How has organisation innovation affected the	The changes in digital transformation have made TM competitive in the market place. Any new technology

decision to bring Telekom Malaysia into the global market?	offered through our products are also on par with the global market offering as TM actively collaborate with its global partner.
What is challenging about your role, and how do you tackle such challenges in executing organisation innovation?	Challenges in my role are to encourage gen-x to be involved actively in a certain project, e.g. agile projects. Most of the staff are comfortable with the current task and difficult to get the team to pursue job rotation since they are within the comfort zone.
How is your role supporting or hindering you in executing organisation innovation?	The role is to tag along team members to get them to involve in the projects and giving as much awareness to the staff and let the staff experience first before voluntarily involved with the project.
How do you think innovation strategies within Telekom Malaysia is performing?	Innovation strategies in TM are going at a medium pace. The biggest challenge is to get a vast number of employees to understand in depth about each innovation and get them to participate or support the programme at the same time.
How is organisation innovation measured in Telekom Malaysia?	Measured in a total of the project with cost efficiencies, such as cost-saving or intangible value of TM customer experience, in this case, it is measured by the Trim index.
How successful has Telekom Malaysia's global strategies?	TM has yet to conquer the global market as competition is still high, but has potential with the current business relationship and a global partner, strong resources that has its own R&D and also wide coverage throughout the countries.

Transcription 18

What specifically is your role in Telekom Malaysia Berhad?	Head of Service Delivery for TM Enterprise
What are your past experiences?	Assurance, Sales
How deeply involved are you in Telekom Malaysia's organisational innovation initiatives?	Slightly involved with innovation in the operation side
How important is organisational innovation within Telekom Malaysia and where has organisational innovation been most effective in the continued transformation of Telekom Malaysia?	Organisation innovation is important as this is key to keep TM competitive in the market. It has been effective in the way TM use data and analytics to identify challenges and opportunity within the organisation
How impactful has organisational innovation been Telekom Malaysia and where have you seen the most affective positive change?	Haven't seen the impact, but several positive changes are observed in the operation end.
What programmes are in place to execute organisational innovation in Telekom Malaysia?	Innovation task force and innovation workshops
How has organisation innovation affected the decision to bring Telekom	This will make TM more competitive and relevant to the global market

Malaysia into the global market?	
What is challenging about your role, and how do you tackle such challenges in executing organisation innovation?	The challenges of my role include managing stakeholders and process implementation
How is your role supporting or hindering you in executing organisation innovation?	My role would support innovation as it is key for more efficient service delivery
How do you think innovation strategies within Telekom Malaysia is performing?	Strategies are working but no real immediate impact
How is organisation innovation measured in Telekom Malaysia?	Through performance evaluation
How successful has Telekom Malaysia's global strategies?	Not really successful in penetrating the global market

Transcription 19

<p>What specifically is your role in Telekom Malaysia Berhad?</p>	<p>Oversees group-level development, business plan cycles, performance, and M&A</p>
<p>What are your past experiences?</p>	
<p>How deeply involved are you in Telekom Malaysia's organisational innovation initiatives?</p>	<p>Not involved specifically, but involved when it concerns group-wide</p>
<p>How important is organisational innovation within Telekom Malaysia and where has organisational innovation been most effective in the continued transformation of Telekom Malaysia?</p>	<p>Very important! Business as usual is no longer acceptable</p>
<p>How impactful has organisational innovation been Telekom Malaysia and where have you seen the most affective positive change?</p>	<p>Remember that TM has a very large number of people and has a lot of legacies. It will take time to see any significant change. Therefore, many things being executed is still at its early stage, and it is premature to say where it has been most effective.</p>
<p>What programmes are in place to execute organisational innovation in Telekom Malaysia?</p>	<p>Several apps have been developed in house to help make collaboration and sharing of information better. For example, the HERO app is mainly used by our on-field service teams to raise trouble tickets and manage complaints from customers mainly, or corporate clients.</p>

	<p>The execution of innovation in TM is to try and change the way people work in TM. An in-house initiative using the agile approach was implemented to bring collaboration across units and divisions. An example that came out from one of the agile group is an app called i-found app. An app that allows our UNIFI users to log into our UNIFI Wi-Fi hotspot anywhere</p>
<p>How has organisation innovation affected the decision to bring Telekom Malaysia into the global market?</p>	<p>Not much at the moment, as being in the global market is a natural progression for TM as a telco</p>
<p>What is challenging about your role, and how do you tackle such challenges in executing organisation innovation?</p>	<p>Mindset and culture is the biggest challenge. The next big challenge is the digitisation of processes. Processes are about the productivity of staffs, and that is difficult as TM has a large number of employees</p>
<p>How is your role supporting or hindering you in executing organisation innovation?</p>	<p>I am not involved in execution but more at the strategic level for the TM group</p>
<p>How do you think innovation strategies within Telekom Malaysia is performing?</p>	<p>Still at an infant stage to tell, but current management is very supportive. And the current CEO is big into digitisation. He wants to liberalise many things within TM Group. TM's BOD is very receptive and endorses many of the innovation initiatives in TM.</p>
<p>How is organisation innovation measured in Telekom Malaysia?</p>	<ul style="list-style-type: none"> - Time to market. For example, what used to take 12 months or more to bring a product to market now takes 2 to 6 months! - Cost savings. - Outcome

How successful has Telekom Malaysia's global strategies?	So far, our global business is very traditional, minutes, trunks and such. So, in that front, we have been doing ok, though we could do more.

Transcription 20

What specifically is your role in Telekom Malaysia Berhad?	Infrastructure Management
What are your past experiences?	Business Innovation and Solutions, Business Architect, Regulatory Development, Sales.
How deeply involved are you in Telekom Malaysia's organisational innovation initiatives?	Involved in Business Development on new business ventures beyond traditional telco
How important is organisational innovation within Telekom Malaysia and where has organisational innovation been most effective in the continued transformation of Telekom Malaysia?	Organisation innovation is important as this is key to keep TM competitive in the market. There are sheer motivation and requirement to innovate
How impactful has organisational innovation been Telekom Malaysia and where have you seen the most affective positive change?	Haven't seen the impact, but several positive changes are in place toward achieving innovative and new business
What programmes are in place to execute organisational innovation in Telekom Malaysia?	Innovation strategy, workshops, and retreat
How has organisation innovation affected the decision to bring Telekom	This will make TM more competitive and relevant to the global market.

Malaysia into the global market?	
What is challenging about your role, and how do you tackle such challenges in executing organisation innovation?	The challenges of my role include managing stakeholders and processing implementation.
How is your role supporting or hindering you in executing organisation innovation?	My role would support innovation as it is key for more efficient service delivery. Can be dragged by quick fix requirements instead of building the right foundations.
How do you think innovation strategies within Telekom Malaysia is performing?	Strategies are not working as expected. The main problem here is because current efforts want to do a quick fix and address low hanging fruits and short-term solutions. In order to really ensure organisational innovation to work, there is a need to have structural reform.
How is organisation innovation measured in Telekom Malaysia?	Through performance evaluation and initiatives completed
How successful has Telekom Malaysia's global strategies?	Not really successful in penetrating the global market