

**A Strategy Tripod Perspective on Merger Effectiveness in the
Higher Education Industry, with the Mediating Influence of
Future Foresight**

نظرية الاستراتيجية الثلاثية حول فعالية الاندماج بين مؤسسات التعليم العالي، مع
التأثير الوسيط لاستشراف المستقبل

by

ZAHRAA SAMEER SAJWANI

A thesis submitted in fulfilment

of the requirements for the degree of

DOCTOR OF PHILOSOPHY IN BUSINESS MANAGEMENT

at

The British University in Dubai

September 2020

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Thesis Supervisor

Dr. Abdelmounaim Lahrech

Approved for award:

Name
Designation

Name
Designation

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ABSTRACT

This study aims at testing the impact of the antecedents of the perceived mergers effectiveness in the higher education industry from the point of view of managers and administrators. In other words, the study outlines factors that measure merger effectiveness in the higher education industry and tests them from the perspective of managers against three main antecedents – government support, competitive intensity, and knowledge creation capability. The study develops a novel model that predicts the effectiveness of mergers in the higher education industry by identifying and examining these three key antecedents from the theoretical lens of the strategy tripod with the mediating influence of future foresight. The strategy tripod, which includes three theoretical perspectives, will be the underpinning tool for the conceptual framework of this study that will guide the researcher into identifying the constructs tested in this study. The study identifies one construct under each theoretical perspective that is most relevant to the context of higher education mergers. The significance of this study lies in the use and application of three dimensions of the strategy tripod alongside the future foresight competence. The researcher argues that future foresight will have a significant impact in supporting the strategy tripod's factors in explaining the relationship between the antecedents and the higher education merger effectiveness – as a mediator. Therefore, one of the researcher's main anticipated contribution to knowledge is to prove that future foresight can be added as a fourth leg to the strategy tripod framework, making it a Strategy Quadpod. Moreover, to the researcher's knowledge, this holistic perspective of applying the strategy tripod and future foresight has not been applied in studies related to the higher education industry before. Thereby, this paper examines the influence of external and internal factors on higher education institutions' mergers. To be specific, this study represents one of the first attempts – if not the very first - that examine factors from the institution-based perspective, the industry-based perspective, and the resource-based perspective of the strategy tripod that influence the effectiveness of higher education mergers in Europe and the United States of America, with the mediating influence of future foresight.

نبذة

تهدف هذه الدراسة إلى اختبار العوامل الاستراتيجية المؤثرة على فعالية الاندماج بين مؤسسات التعليم العالي من وجهة نظر المدراء والإداريين. حيث أن هذه الدراسة تقوم بتحديد وتحليل العناصر التي تقيس مدى فعالية الاندماج بين مؤسسات التعليم العالي وتختبرها من منظور المدراء مقابل ثلاث عوامل رئيسية: الدعم الحكومي، الكثافة التنافسية، والقدرة على خلق المعرفة. تقوم هذه الدراسة على بناء نموذجاً جديداً يساعد على تقييم فعالية الاندماج بين مؤسسات التعليم العالي من خلال تحليل العوامل الرئيسية الثلاثة ضمن إطار نظرية الاستراتيجية الثلاثية مع تأثر استشراف المستقبل كعامل وسيط. وتكمن أهمية هذه الدراسة في ريادتها في استخدام وتطبيق ثلاثة أبعاد استراتيجية مختلفة - إلى جانب عامل استشراف المستقبل - على فعالية الاندماج بين مؤسسات التعليم العالي. وتركز هذه الدراسة على إثبات أهمية عامل وساطة استشراف المستقبل في دعم عوامل النظرية الاستراتيجية الثلاثية في تفسير العلاقة بينها وبين فعالية الاندماج بين مؤسسات التعليم العالي. فإن أحد الإسهامات الرئيسية المتوقعة من هذا الدراسة هو إثبات إمكانية إضافة استشراف المستقبل كعامل رابع لإطار الاستراتيجية الثلاثية، مما سيبيّن بدوره نظرية جديدة ومطورة تتمثل بالاستراتيجية الرباعية. علاوة على ذلك، فإن هذا المنظور الاستراتيجي الرباعي الشامل لم يتم تطبيقه من قبل في أية من الدراسات السابقة. وبذلك، فإن هذه الدراسة تمثل أولى المحاولات التي تبحث العوامل المؤثرة على فعالية الاندماج بين مؤسسات التعليم العالي في أوروبا والولايات المتحدة الأمريكية من منظور الاستراتيجية الثلاثية مدعومة بعامل استشراف المستقبل.

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List of definitions

Academic capitalism	Market and market-like behaviours on the part of universities and faculty.	(Slaughter & Leslie 1997, p. 11)
Capabilities	An organization's capabilities is in its ability to create and sustain competitive advantage through the integration of knowledge or through its processes and routines, and through its adaptability.	(Grant 1996a; Matson, DeLoach, & Bhatnagar 2009; Walsh & Linton 2001)
Competencies	Competencies are the skill-related abilities. They are the specific technologies, knowledge, and production related skills and codes of behavioural standards.	(Mitchelmore & Rowley 2010; Walsh & Linton 2001)
Dynamic capabilities	The capabilities that build the ability to seize opportunities in fast-changing and dynamic industries or environments.	(Teece, Pisano, & Shuen 1997)
Future foresight	An outlook into the different dimensions, perspectives, shifts and paradigms of the future that enables leaders and governments to respond effectively to these events and future uncertainties.	(Ministry of Cabinet Affairs and the Future 2017)

Globalization	The move towards creating one-worldness. It is the interconnection, integration and conversion of local and global systems and players.	(Marginson 2010 & 2014)
Higher education	A level of education that is provided by universities, vocational universities, community colleges, liberal arts colleges, institutes of technology and other collegiate level institutions, such as vocational schools, trade schools and career colleges, that award academic degrees or professional certifications.	(IGI Global 2018)
Higher education institutions	Several types of organizations that are part of the higher education industry. It includes art schools, music conservatories, and professional schools such as medical schools, law schools, seminaries, and trade schools” along with community colleges and their mix of traditional college courses and occupational skills. These institutions are complex systems that are active in many areas, such as: education, scientific research, professional activity and others.	(Cerović, Arbula Blecich & Štambuk 2014, p. 90; Ford 2017, p. 561)
Higher education quality	A multidimensional concept that includes various elements, such as: the resources and	(Aksu 2018)

	capabilities of universities, the students' competencies and achievements, the value of the educational programmes, the ratings and university accreditations.	
Industry-based view	A strategy perspective that focuses on the external forces that affect a firm's position in a market.	(Porter 1979)
Institution-based view	A strategy perspective that focuses on the interaction-level between a firm and its environment.	(DiMaggio & Powell 1983)
Institutional field	A recognized area of expertise or activity where institutions and professionals compete and interact together.	(DiMaggio & Powell 1991, p. 64)
Institutional logics	Socially constructed, historical patterns of cultural symbols and material practices, assumptions, values and beliefs by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their daily activity.	(Friedland & Alford 1991, p. 243)
Internationalisation in higher education	The process of integrating international political, cultural, academic and economic objectiveness into the higher education system.	(Knight 2004)

Isomorphism	The process in which various environmental conditions and forces cause the population units to change and ultimately resemble each other.	(Hawley 1968)
Mergers and acquisitions	Mergers happen when two firms join together to combine their liabilities and equity whereas acquisitions happen when one firm buys another firm.	(Reis, Carvalho & Ferreira 2015)
Neoliberalism	An economic notion that promotes the free-market activities in which players are left to compete without external influences. Neoliberalism advocates for the monetization of all systems, including higher education, to generate profits.	(Jones 2012; Olssen & Peters 2005; Taylor 2017)
New public management	A reformed style of management that moved towards marketisation, or the application of business management theories and practices in public service administration. This concept was developed by scholars in the 1980s advocating for lesser differences between the private and public sector.	(Hood 1995; Tolofari 2005, p. 75)
Organizational culture	A system of shared meaning held by members that distinguishes an organization from other organisations. In addition, organizational culture includes the day-to-	(Pepper & Larson 2006, p. 52;

	day practices, values, assumptions and expectations.	Robbins 2005, p. 485)
Porter's five forces	Five forces that shape strategy: the intensity of industry rivalry, the power of suppliers, the power of consumers, the availability of substitutes and the level of entry barriers.	(Porter 1979)
Resource-based view	A strategy perspective that focuses on the characteristics of a firm's internal resources that give the firm a sustainable competitive advantage.	(Barney 1991)
Strategic management	Strategic management refers to the activity of pulling together knowledge from various fields to analyse and solve complex business issues. It is also the activity of planning and implementing strategic goals and decisions.	(Kazmi & Kazmi 1986; Mohuba & Govender 2016; Sułkowski, Seliga & Woźniak 2019).
Strategy tripod	A strategy perspective that combines three different levels of analysis-views into one integrated framework. The strategy tripod includes the institution-based view, the industry-based view, and the resource-based view.	(Ju, Zhao & Wang 2014; Su, Peng & Xie 2015)

Sustainability	<p>A contemporary concept and practice that focuses on the development of three main pillars: economic development, social development, and environmental protection. Sustainable development in higher education aims at enabling people to not only acquire and generate knowledge, but also to reflect on further effects and the complexity of behaviour and decisions in a future-oriented and global perspective of responsibility.</p>	<p>(Barth et al. 2007, p. 416; Leal Filho et al. 2018)</p>
SWOT	<p>An analysis tool that provides the foundation for realization of the desired alignment of organizational variables or issues. By listing favourable and unfavourable internal and external issues in the four quadrants of a SWOT analysis grid, planners can better understand how strengths can be leveraged to realize new opportunities and understand how weaknesses can slow progress or magnify organizational threats.</p>	<p>(Helms & Nixon 2010, p. 216)</p>
Transnational campuses or offshore campuses	<p>These campuses can take different forms, such as: branch campuses, replica campuses, and virtual branch campus.</p>	<p>(Miller-Idriss & Hanauer 2011)</p>

1.0 Chapter One: Introduction

Making strategically sound decisions plays an important role in the success or failure of organizations. Decision-making affects the competitiveness and performance of organizations (Oyewobi, Windapo & Rotimi 20;15). In a way, decision makers hold the keys to the success or failure of their institutions through the soundness of their decisions. Therefore, it is vital that decision makers employ sufficient due diligence and strategic tools to analyze the available options before making any decisions. Moreover, the 21st century has proved to be an age of uncertain and complex global challenges and paradigms that leaders and governments need to be insightfully alert about and strategically prepared for (Ministry of Cabinet Affairs and the Future 2017). In other words, with today's challenging times, decision makers need to be even more aware of their surroundings, happenings, and future trends in order to make effective decisions. Decision makers need to have sufficient skills and tools to analyse the internal and external factors that affect their institutions. That is because sound analysis usually leads to sound decisions.

Today's fast moving, competitive and global environment has often pushed organizations - operating in different industries - towards considering strategic decisions to improve and sustain their profitability. The intense competition that institutions face these days has made decision-making an even more challenging process. Particularly speaking, decision makers are expected to focus on decisions that would secure the sustainability, future and survival of their institutions. In fact, according to scholars such as Cavanagh (2018) and Kemal (2011), one of the popular strategic decisions or trends have been for organizations or institutions to go for mergers and acquisitions. Organizations or institutions can take merger and acquisition decisions to expand, grow, develop or rescue their business.

The number of mergers in the higher education industry have increased over the past years (Cavanagh 2018). higher education institutions participate in mergers for different reasons;

however, the ultimate motive of a merger is usually to strengthen the competitive advantage and effectiveness of the organization (Romanenko & Lisyutkin 2018). In other words, the decision to go for a merger is usually to face the intense competition in the higher education industry or to improve the performance of the higher education institution. There are different reasons why the competition in the higher education industry is increasing, such as due to globalization and internationalization of higher education. There are various indicators of improved higher education effectiveness, such as better academic quality and retention rates. These factors will be discussed in details in the following sections of this paper.

In short, from the extensive literature review, this study will identify key factors that are indicators of the effectiveness of higher education institutions. These factors will then be tested and examined from the perspective of the managers of the higher education institutions pre-merger years and post-merger years to highlight if the performance and effectiveness of the higher education institution have improved or declined after the institution(s) participated in the merger. Moreover, this study will identify three key strategy tripod factors that are arguably expected to influence the higher education institutions' merger effectiveness and will test the relationship between these factors and the merger effectiveness factors, independently and with the mediating influence of future foresight. Further details on these factors will follow later.

It is worth noting that the rate of merger-failure is evidently higher than the rate of its success (Christensen et al. 2011). That is, despite of the due diligence that decision makers and managers make, many mergers end up in failures and demergers. This is startling because such strategic decisions are usually only taken after considering all the relevant and influential factors. Means there is something or some factor that is still missing from the equation. Therefore, it is important to study this phenomenon, extend strategy theories, and establish a framework that identifies factors that influence mergers' effectiveness in higher education. This study employs the strategy tripod framework and adds to knowledge by dissecting this strategic tool into smaller key elements that can be directly applied and examined in mergers in the higher education

industry. In other words, through an intensive literature review that employs the strategy tripod framework, the research will identify the factors that influence higher education merger effectiveness. Also, this study will test the mediating influence of future foresight competence which has the potential of adding significant knowledge to the literature relating to higher education mergers. Furthermore, the study fills a gap in the literature by applying a business strategy tool on higher education institutions to highlight the uniqueness of mergers in the higher education industry.

1.1 Research context

Scholars have noted that merger and acquisition decisions are considered one of the most difficult and challenging decisions that organizations make (Ahi et al. 2017). Therefore, it is very important that organizations perform solid due diligence and constructive analysis before going ahead with any merger and acquisition decision. Decision makers need to consider various external and internal factors before going ahead with any merger and acquisition decision. In 2017, the global value of mergers and acquisitions was more than 3.5 trillion USD, and mergers and acquisitions in the educational services were about 84 billion USD worldwide (IMAA 2017). In fact, mergers and acquisitions in the educational sector have drastically increased over the past years (Cavanagh 2018). Thus, it is important to acknowledge this growing trend in the educational sector - and the higher education industry - and examine the factors that influence these mergers and acquisitions. These factors would help in identifying the best practices involved in the process leading-to and following the decision of participating in mergers and acquisitions among higher education institutions.

Moreover, the education industry has witnessed a number of change-waves over the past decades, especially in the higher education industry. With the rise of globalization, internationalisation, neoliberalism, capitalism, marketisation, sustainability and new public management (NPM), higher education institutions were put under pressure to reform and adapt to the changing industrial dynamics (Bessant, Robinson & Ormerod 2015; Jung 2018;

Kreber 2009; Liu, Patton & Kenney 2018; Ripoll-Soler & de-Miguel-Molina 2014). One of the strategies that higher education institutions adopted to cope with the changing environment is participating in mergers (Boling, Mayo & Helms 2017). In other words, in order to survive these challenging change-waves and sustain their effectivity and performance, higher education institutions opted to join forces with each other in mergers. Mergers were expected to give strength and effectiveness to the newly-formed higher education institution.

Nonetheless, studies have shown that the rate of failure of mergers and acquisitions is between 50% to 90% (Balmer & Dinnie 1999; Christensen et al. 2011). This indicates that in spite of all the due diligence and analysis that goes into deciding to merge with another higher education institution, there is still something missing that is leading to these high rates of failure. Failure and success can be viewed in different ways. According to the science of cognitive psychology, people determine what is a success or a failure based on self-serving judgements and personal experiences (Heider 1958; Hewstone 1989; Walsh & Cunningham 2017). That is, people design the meaning of failure based on what suits their preferences and personal judgements. In other words, people might view matters of failure and success subjectively rather than objectively. People usually attribute success to their own actions whereas they attribute failure to external causes (Vaara 2002). To explain, people tend to blame external reasons or individuals for failures whereas take personal credit for successes.

Nevertheless, personal failure is a little different than business failure. In fact, according to a comprehensive literature review by Pretorius (2009), there is not a one universal definition for business failure. Business failure has been linked to several indicators, such as: worsening financial performance, lower resource productivity, or complete discontinuance of operations (Balcaen & Ooghe 2005; Chowdhury & Lang 1993; D'Aveni 1989; Liao 2004; Ucbasaran et al. 2013). Thereby, seeing these indicators in the post-merger phase could be a

sign for a business failure of that particular merger. However, to avoid over-complicating the definition of business failure, scholars have opted to simply define failure as the “cessation” of a business (Ucbasaran et al. 2013; Walsh & Cunningham 2017). Therefore, while the concept of failure and success is a debatable one, for the purposes of this study, we would consider a merger as a failure if it was heading toward dissolution. In other words, the higher education mergers that ended up in a demerger or in a dissolution are considered a failure. This study will only include higher education institutions that have not demerged or dissolved after participating in a merger.

On the other hand, many scholars have noted that even if higher education mergers succeed, the involved parties and stakeholders have often reported being dissatisfied with the overall merger process (Chipunza & Gwarinda 2010). In fact, scholars have often noted that higher education systems are more complex now, and it is more difficult to cater to the expectations of all the involved stakeholders in a merger (Kehm 2015). Therefore, it is important to address these challenges that higher education institutions are facing, by identifying and understanding the internal and external factors that affect the level of effectiveness of these mergers. That is, in this study, the internal and external factors are being represented by the identified strategy tripod factors and the future foresight factor. Whereas, the higher education institutions’ merger effectiveness is represented in the list of factors that were identified from the literature.

It is vital for scholars and practitioners to understand the dynamics and the strategic considerations that are involved in the decision-making process to prevent potential failures. Organizations need to critically analyse various factors that may influence the merger and acquisition before making any strategic decisions. Therefore, this study aims at examining this problem from a strategy-driven, holistic perspective - using the theoretical lens of the strategy tripod, with a special emphasis on future foresight. Specifically, this study aims at

testing three key factors from the three legs of the strategy tripod: institutional factors, industry conditions and organizational resources that influence merger effectiveness in higher education, along with the future foresight competence as a mediating factor (Lu, Liu & Wang 2011; Ministry of Cabinet Affairs and the Future 2017; Yamakawa, Peng & Deeds 2008). That is because the high rate of failed mergers and acquisitions are indicators of the potential presence of strategic weak-links and lack of future foresight that are undermining the long-term success of higher education institutions' mergers, especially in this era.

1.2 Research problem

As noted earlier, the number of mergers in the higher education industry have increased over the past years (Cavanagh 2018). Nonetheless, the rate of merger-failure is evidently higher than the rate of its success (Christensen et al. 2011). The research problem of this study is that there is a strong need for investigating the high rate of failure in mergers in the higher education industry. There is a gap in the literature that lacks empirical research that examines the factors that influence merger effectiveness in the higher education industry. The strategy tripod and future foresight perspectives have not been applied on mergers in higher education yet. Moreover, scholars have emphasized that there are hundreds of case studies that look at singular cases; however, only a few empirically integrated “studies have been gathered that draw a complex picture of the mergers’ practices” in the higher education industry (Sułkowski, Fijałkowska, & Dzimińska 2019, p. 2). That is, studies have shown how individual factors influence higher education mergers only. However, there is a lack of studies that looks at the key variables together and empirically tests them (Su, Peng & Xie 2016). Thereby, having one study that includes various perspectives will be an added value to the scholarly field and knowledge (Lu, Liu & Wang 2010; Peng et al. 2009; Yamakawa, Peng & Deeds 2008).

1.3 Research purpose

The main purpose of this study is to identify and examine three key factors from the strategy tripod that influence the effectiveness of mergers in the higher education industry, and test them with the mediating effect of the future foresight competence. The effectiveness of mergers will be measured from a list of identified indicators that will be assessed based on the perception of the managers in the merged higher education institutions. In addition, based on the study findings, the researcher aims at developing a model that builds on the theoretical lens of the strategy tripod and adds future foresight to it – making it a quadpod that can be used to predict and test the antecedents of higher education merger effectiveness in the future. Furthermore, this developed novel model would be utilised by the professionals and practitioners as a guiding tool for their respective merger and acquisition strategic-decisions. Thereby, the ultimate purpose of this study would be extending the literature on higher education mergers and highlighting the significance of future foresight in the strategy tripod framework, with the possibility of adding it as a fourth leg to develop a Strategy Quadpod that will be used in the future by various scholars and practitioners in the field of higher education mergers.

Scholars have often emphasized that the higher education industry has unique characteristics that distinguishes it from the traditional corporate industry. For example, Wilson and Elliot (2016) highlighted that, unlike the commercial firms, the nature of decision-making in higher education institutions depends on multiple authorities. In other words, decisions in commercial firms usually follow a hierarchical nature; however, decisions in universities or higher education institutions are products of a shared governance system that is based on collaborative efforts of board executives, administrative and faculty personnel together (Wilson & Elliot 2016). In fact, the past few decades have witnessed an increased demand and a higher volume of research in higher education. Historically, research

in higher education emerged in the United States in the 1950s and in Europe in the 1980s (Kehm 2015). The initial emergence of higher education research was to support policy-formulation and related decisions. However, with the rise of globalizations, the demand for higher education research grew to address the new realities, challenges, and opportunities (Chipunza & Gwarinda 2010). In other words, with the new era and the challenges facing the world and the higher education industry, there is an intensive need to studies that focus on higher education institutions and their sustainability. This study is one of the attempts in this direction – to build and extend knowledge in this field.

Moreover, Scott (2000) stressed that higher education should be considered as a central discipline of research in the 21st century. That is, researchers need to treat higher education as an independent field of study in business schools and academic research. The higher education industry nowadays operates with norms and isomorphisms like any other inter-dependent industry in today's globalized world. In fact, the UNESCO's 1st World Conference in higher education, which took place in 1998, specifically highlighted the importance of producing quality research in higher education to protect the relevance of this field on a global scale (Kehm 2015). Furthermore, it is worth mentioning that business schools around the world have started acknowledging the importance of studying the higher education industry, and much of the higher education management, strategy and policy research is actually conducted in business schools (Pusser & Ordorika 2001). Thereby, as part of a business management study, this study focuses on higher education institutions with the purpose of contributing to the knowledge that is vital for the advancement of the higher education industry.

The higher education industry has distinct features and contexts. In other words, although it is considered an industry operating like other businesses, it still has its unique characteristics. According to IGI Global (2018), higher education refers to “a level of

education that is provided by universities, vocational universities, community colleges, liberal arts colleges, institutes of technology and other collegiate level institutions, such as vocational schools, trade schools and career colleges, that award academic degrees or professional certifications” and these are often called higher education institutions. Thereby, the term ‘higher education institutions’ refers to several types of organizations that are part of the higher education industry. According to Cerović, Arbula Blečić and Štambuk (2014, p.90), higher education institutions “are complex systems active in many areas: education, scientific research, professional activity and other”. Scholars have noted that institutions in the higher education industry have certain unique characteristics that call for a special consideration of their complexities when considering decisions such as mergers and acquisitions (Romanenko & Lisutkin 2018). This means that special research needs to be dedicated for higher education mergers and acquisitions, such as this study that particularly focuses on mergers in the higher education industry only.

Moreover, scholars have called for the importance of establishing conceptual frameworks that are tailored to the higher education industry to understand its unique dynamics (Jung 2018). In other words, there is a lack and need for conceptual framework, theoretical underpinnings, and strategic tools that are designed specifically for the higher education industry. This study attempts to fill this gap by developing a model that has been tested in the higher education industry’s context. The higher education context, represented in higher education institution and universities, is a product of different factors interacting with each other under various conditions.

In fact, scholars have even labelled the higher education industry as a ‘hybrid’ system and process due to its rich history in terms of strategic development and management trends (Jung 2018). To explain, a hybrid management system is often referred to one which does not depend on a single management style, but rather on a combination of management styles and

systems. It is a system that promotes and moves the staff and personnel based on their willingness and merit to perform, which dictates their level of responsibility and delegation as well – vice versa. This is considered one of the development trends in the higher education industry.

Another one of the popular strategic development trends and activities in higher education is participating in mergers. However, there are limited studies about strategies, institutional management, and structural change in higher education (Kehm 2015). In other words, there are only few studies about the various strategic decisions that are made in higher education institutions. There are limited studies about specific institutional managerial styles and processes that are present in higher education institutions. There are also very little studies that focus on structural change management in higher education institutions. Therefore, this study is an attempt to fill this gap; it sheds some light on the strategic decision of mergers in higher education where the managerial outlook on the merger effectiveness is taken into consideration and the factors influencing the change associated with the higher education mergers are being examined. This study combines these elements in a holistic manner.

1.4 Research questions

Since this study's theoretical lens is based on the strategy tripod perspective and future foresight, the main research questions have been developed to match these four legs of strategy. To recap, the strategy tripod includes the institution-based view, the resource-based view, and the industry-based view. This study will identify a key factor from these three theoretical backgrounds of the institution-based view, the industry-based view, and the resource-based view that influence the effectiveness of mergers in the higher education industry. Moreover, the study will explore the influence of the future foresight competence on the effectiveness of higher education mergers independently and through its mediating role. Thereby, this study's research questions are as follows:

- What are the factors that significantly influence merger performance in the higher education industry?
 - What is the most relevant institutional factor that influence merger effectiveness in higher education?
 - What is the most relevant industry condition that influence merger effectiveness in higher education?
 - What is the most relevant internal resource that influence merger effectiveness in higher education?
- What is the significance of future foresight in relation to the strategy tripod framework in influencing higher education mergers' performance?

The target audience for this study are scholars and practitioners that are concerned with the field of strategy and higher education management. Moreover, since this study's data will be gathered from Europe and USA, scholars that are interested in international studies and international higher education management would be interested in this study as well. The developed model will add novel value to knowledge in the areas of strategy, decision-making, and higher education studies. Journals that are dedicated to business strategy, marketing, quality management, international and higher education studies are the key targets for this type of study.

1.5 Research objectives

Based on the research purpose and the research questions of this study, the objective of this study has five main folds. The first objective is to apply the strategy tripod framework on mergers in the higher education industry to identify three key factors that influence higher education mergers from the literature review – from the holistic perspective of the strategy tripod. That is, through a thorough literature review process, the researcher will identify one factor from the industry-based view, one factor from the resource-based view, and one factor

from the institution-based view that influences higher education merger effectiveness in the most relevant ways. The second objective is to test the significance of the impact of these factors on the effectiveness of mergers in the higher education industry. In other words, the researcher will then empirically test the influence of these three factors on higher education merger effectiveness to prove their significance. The third objective is to examine the influence and weigh of future foresight competence on the relationship between the identified antecedents and higher education merger effectiveness. That is, the researcher will specifically test the empirical significance of future foresight on higher education merger effectiveness independently and as a mediating factor to the previously identifies three strategy tripod factors. The fourth objective is to develop a novel model that highlights these main strategy tripod factors and the future foresight competence as a Strategic Quadpod that influences merger effectiveness in the higher education industry. Last but not the least, based on the outcome of the study's data and hypotheses testing, the fifth objective is to provide practitioners with a best practices list that can help them lead effective higher education mergers. Thereby, the followings are the main research objectives of this study:

- To identify the main factors that significantly influence merger performance in the higher education industry, from a strategy tripod perspective.
- To examine the extent by which the strategy tripod factors influence merger performance in the higher education industry.
- To test the mediating effect of future foresight between the strategy tripod factors and higher education mergers' effectiveness.
- To develop a novel model that highlights the significance of future foresight in the strategy tripod framework within the higher education industry context.
- To provide practitioners with best practices that can help them improve the effectiveness of strategic decisions in the higher education industry.

It is worth mentioning that the higher education merger effectiveness will be measured by a list of indicators that will be identified from the literature review. This list will be empirically measured from the subjective point of view of the managers in the studied merged higher education institutions. Based on the perception of the managers of the merged higher education institutions, they will assess if the identified performance effectiveness' indicators have improved or worsened in the post-merger period in comparison to the pre-merger period. The figure below provides a representation of the objectives and the key variables investigated in this study. Further details on the variables and the effectiveness indicators will follow in the literature review chapter.

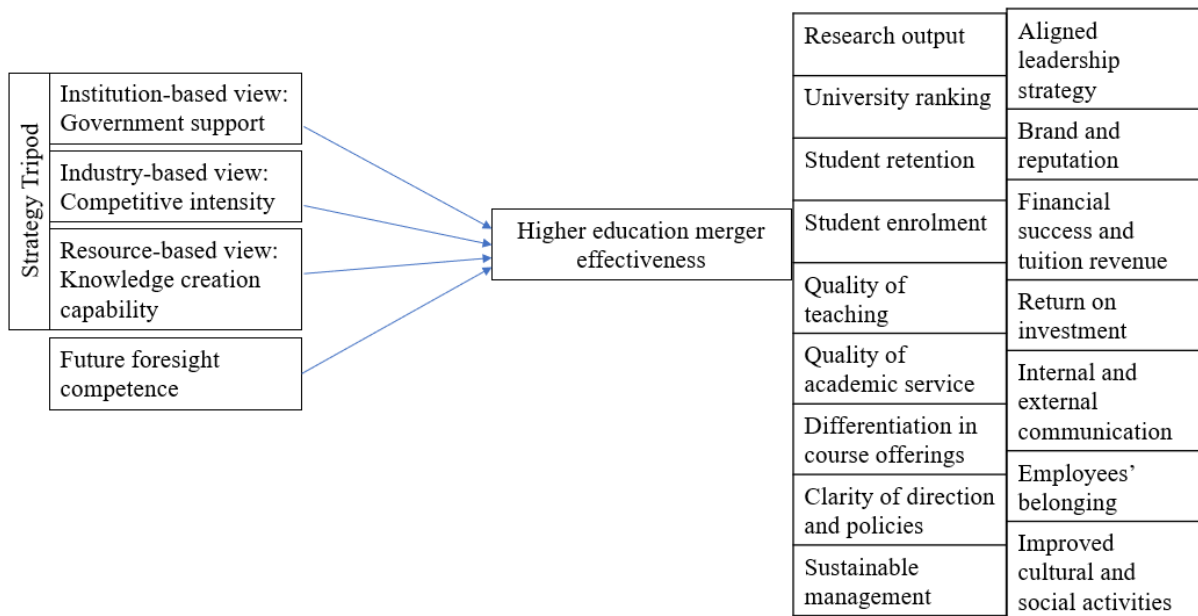


Figure 1: Research framework and key variables.

In summary, to clarify the overall research approach and key variables investigated, the researcher will identify four independent constructs that influence higher education merger effectiveness. Three out of these four constructs are part of the strategy tripod framework: competitive intensity, government support, and knowledge creation capability. The fourth independent construct is the future foresight competence. In addition, the researcher will identify a list of performance indicators that measure the

higher education merger effectiveness from the perceptions of managers. The researcher will then empirically test the relationship between these variables to support or reject the developed hypotheses about the influence of these constructs on the effectiveness of higher education mergers. The main objective and argument of this study being that if decision makers and managers secured having these four independent constructs, then the chances of the higher education merger not failing and being effective are higher.

1.6 Research strategy

Scholars have usually approached topics related to higher education mergers from a qualitative or case study method. That is mainly because each case or each merger has its own unique characteristics and goes through individualized dynamics. The identification of specific measurable constructs that are related to strategy tripod or future foresight – in the context of higher education – is still an underdeveloped area in the scholarly field. Therefore, this study – by following a quantitative method – presents one of the first attempts in tackling this research problem from a holistic, empirical and statistical approach. This study builds on pre-validated measures from recent studies, published in high quality scholarly journals, and applies them on higher education mergers. The researcher only adjusts the measurement scales to reflect the context of higher education mergers. Additionally, the researcher identifies a list of higher education merger effectiveness indicators or items that are then used to measure this construct in this study.

In other words, the purpose of this study is to identify the strategy tripod constructs that are most relevant to the effectiveness of mergers in higher education and test their significance with the mediating effect of future foresight. This study will not venture on designing measurement scales for the identified strategy tripod factors – since previous scholars have operationalised the strategy tripod and developed scales for the constructs in other contexts. However, by applying the scales on higher education institutions, this study

will certainly set the foundation for these assessments in potential future higher education and strategy-related studies, especially once/if the researcher's Strategy Quadpod argument and hypotheses are supported. This study will produce a novel framework that applies the strategy tripod and future foresight perspectives in higher education mergers, catering to the uniqueness of higher education institutions and the higher education industry. Furthermore, this framework could be stretched in further theory-building by extending its application for the enhancement of higher education decisions in general, not only for higher education mergers. In other words, it is expected that the developed Strategy Quadpod could be deployed in other context and for other industries as well, with just some minor alterations. Other than aiding the strategic decision of mergers in higher education, the framework will also add value for business practitioners because it can be used by managers and decision-makers for higher education audits too. That is, the framework can be used in quality management for higher education institutions or other institutions as well.

Since this study is underpinned by the strategy tripod and future foresight theoretical background, it will adopt a deductive research approach. The deductive approach starts with the theory and then tests the data outcome accordingly. Further details about this approach will follow in the methodology chapter. The study will be led by the operationalisation and statistical testing of the strategy tripod and future foresight constructs, which are going to be based on the objectivism and post positivism approach. These philosophical selections will be further discussed in the methodology chapter as well.

Due to some challenges in the sample frame identification and in reaching the target participants, this study will follow a convenient sampling technique where higher education institutions that went through a merger in the past 5-10 years will be selected and contacted to participate in the study. That is, the researcher will identify a list of higher education institutions that went through a merger from the years 2013 to 2016 from Europe and USA

and approach managerial level participants to fill the online survey. The study will depend on the managers' input that were part of the higher education institutions at the time of the merger, to reflect on the situation in the period three years pre-merger and the period three years post-merger – in comparative analytical manner.

For the reliability and validity of the data, the relevant statistical tests will be performed by the researcher using the statistical software. Additionally, whenever possible, multiple respondents from each higher education institution will be requested to take the survey. This technique enhances the overall objectivity level of the data and reduces any bias in the responses. Nonetheless, the common method bias test will be conducted as well to check for the soundness of the gathered data. The study will include higher education mergers from different countries from around Europe and USA to support the generalisability of the results and findings. Further details about the sample and methodology are presented in chapter four of this paper.

1.7 Conclusion

To summarize, the number of mergers in the higher education industry have increased over the past years (Cavanagh 2018). Mergers in the higher education industry are worth studying since there is a drastic increase in their numbers. Nonetheless, the rate of merger-failure is higher than the rate of its success (Christensen et al. 2011). It is startling that an important strategic decision such as mergers mostly ends up in a failure. Researchers need to examine this phenomenon of failed mergers to understand what is the missing factor that is affecting the success or failure of mergers. This study argues that higher education institutions need to assess an amalgamation of various factors, externally and internally, along with having a future foresight outlook to improve their merger decision. Thereby, the research has proposed employing a strategy tripod and future foresight perspective in this study.

Higher education institutions participate in mergers for different reasons; however, the ultimate motive of a merger is usually to strengthen the competitive advantage and effectiveness of the organization (Romanenko & Lisyutkin 2018). Scholars have called for the importance of establishing conceptual frameworks that are tailored to the higher education industry (Jung 2018). There is a gap in the literature that lacks empirical research that examines the factors that influence merger effectiveness in the higher education industry. There is a need for empirical quantitative investigations of merger activities in higher education (Johnes 2014; Liu, Patton & Kenney 2018). The purpose of this study is to extend the literature and contribute to knowledge by applying the strategy tripod and future foresight perspectives on higher education mergers' effectiveness.

This study's main research questions are: What are the factors that significantly influence merger effectiveness in the higher education industry? What is the most relevant institutional factor that influence merger effectiveness in higher education? What is the most relevant industry condition that influence merger effectiveness in higher education? What is the most relevant internal resource that influence merger effectiveness in higher education? What is the significance of future foresight in relation to the strategy tripod framework in influencing higher education mergers' effectiveness?

This study's main research objectives are: To identify the main factors that significantly influence merger performance in the higher education industry, from a strategy tripod perspective, to examine the extent by which the strategy tripod factors influence merger performance in the higher education industry, to test the mediating effect of future foresight between the strategy tripod factors and higher education mergers' effectiveness, to develop a novel model that highlights the significance of future foresight in the strategy tripod framework within the higher education industry context, to provide practitioners with best

practices that can help them improve the effectiveness of strategic decisions in the higher education industry.

In terms of the research strategy, this study will follow a deductive approach, that is based on the theoretical underpinning of the strategy tripod framework and the future foresight competency. The study's philosophical paradigms are based on the objectivism and post-positivism approach. Due to some constraints and limitations, the study will follow the convenient sampling method. The target sample are managerial level participants from 14 higher education institutions that have participated in mergers during the years 2013 and 2016 from Europe and USA. This selection is to give the participants a window to reflect on a maximum of the past 10 years of performance – the higher education merger effectiveness. The relevant reliability, validity and common bias tests will be conducted accordingly to ensure the soundness of the gathered data.

2.0 Chapter Two: Literature review

The higher education industry went through several waves of change and transitions over the past decades, and this section of the study will present a review of the main trends and prominent movements in higher education. This section will also showcase the higher education trends linked to the activity of higher education institutions' mergers. In other words, the researchers will convey how the higher education industry's changes and trends were leading the higher education institutions to go for mergers. In addition, after venturing on the discussion of higher education trends and mergers, a brief review will be presented on the field of strategic management, strategy tripod and mergers in general. This review will help in establishing the background of the theoretical underpinning of this study – which is the strategy tripod. The strategy tripod's three legs (the institution-based view, the industry-based view, and the resource-based view) are inspired from the scholarly work of Yamakawa, Peng and Deeds (2008), who combined these strategic perspectives in an established, unified, single, strategic framework. And, as proposed by the researcher, by adding the future foresight element in this study, the new developed framework of the study would extend the strategy theories. In other words, its novel contribution to knowledge would be through extending the existing strategy tripod framework to have an amalgamation of factors that include the future foresight element as well. This will also add value to the practical application of this theory where leaders and governments would be able to use this framework to improve the strategic decisions in the higher education industry.

2.1 Trends in higher education

The term higher education includes any type of post-secondary educational institute; it includes “art schools, music conservatories, and professional schools such as medical schools, law schools, seminaries, and trade schools” along with “community colleges” and “their mix of traditional college courses and occupational skills” (Ford 2017, p. 561). Over

the past century, the higher education industry has gone through several trends and phases of change. This literature review section will discuss these trends by highlighting their main attributes and impacts on higher education. That is, a comprehensive review of the main trends in higher education will be presented. These trends will include: non-discriminating reforms, political initiatives, mass education, globalization, internationalisation, cultural convergence, sustainability, neoliberalism, capitalism, and new public management. The section will be concluded by a few summarized remarks on how these various trends lead higher education institutions towards participating in mergers.

2.1.1 Higher education discriminations and political reforms

In earlier times, higher education was a privilege that was offered to the upper class and elites of societies only (Guravaiah 2017; Aksu 2018). higher education was offered to the rich class only. Political reforms and discrimination-resistant movements started changing the unjust reality of these restricted higher education privileges (Ngcamu 2017; Manona 2015). People started resisting this unjust restriction and demanded having higher education for all classes, not only the rich. higher education institutions started opening their doors to the general public and eliminating any discriminative trends. In fact, in the United States and many European countries, the transition of universities from elite to mass education was evident in the last few decades of the 20th century (Trow 1973). This transition dramatically impacted the number of students that got access to higher education institutions. Within a matter of 5 or 10 years, some countries, such as France and Sweden, reported a doubling record of university students (Trow 1973). That is because higher education institutions started accepting students from almost all classes and levels now.

Moreover, this wave of mass education did not only change the higher education environment quantitatively, but also qualitatively. In other words, the systems in elite universities were narrowly defined and structured to fit the attributes of elites only; however,

mass education systems were more comprehensive and diversified (Trow 1973). To explain, earlier, the curriculum and courses offered were narrow and focused on the studies related to the rich class only. However, with the development of mass education, the academics and curriculum was stretched and included more diversified subjects adding to its overall quality and thoroughness. This added value to the overall advancement of higher education. Therefore, this trend of mass education contributed to the development of higher education institutions.

Nevertheless, even with higher education institutions opening-up to students from all ethnicities, social classes or nationalities, there were still some discriminatory streams present. For example, influenced by the apartheid system, there were higher education institutions or universities that were catering to the white ethnicities and others were catering to the African ethnicities (De Beer 2017). In other words, the higher education institutions were separated based on the ethnicities. Students from different ethnic backgrounds were not allowed to join the same higher education institution. One of the ways in which government sought reform and cleared out this kind of higher education discrimination was by establishing policies that forced the separate higher education institutions to merge into one institution that caters for everyone (Hall, Symes & Thierry 2004). In other words, government-driven mergers were the solution to this kind of discrimination in some countries during that time.

A good example of this type of a merger is the Durban Institute of Technology (DUT), which took place at the beginning of the 21st century in South Africa (Ngcamu 2017). DUT was the result of a merger of two educational institutes, the Natal Technikon and the ML Sultan Technikon institute. The former was a higher education institution for Indian people, and the latter was for White people. These two higher education institution were separated based on ethnicity; the students of one ethnic background would not join the other ethnic

background higher education institution. The merger between these two higher education institution dissolved this separation and discrimination. It is worth mentioning that although the merger went through some challenges and resistance, it was eventually considered a successful merger that brought together two racially distinct higher education institutions. This government-imposed merger was considered the first of its kind in South Africa, but multiple similar mergers followed. A total of 37 universities were merged and reduced to only 11 universities in South Africa (Ngcamu 2017). Therefore, mergers were considered as one of the strategic decisions that helped governments in initiating the purification of political and social systems from inequalities and discrimination.

It is worth mentioning that a similar type of educational discrimination was also evident in the Middle East and North African region. For instance, in Tunisia, in the 1960s and 1970s, educational opportunities were biased towards the privileged provinces; candidates that were from disadvantaged provinces faced stricter thresholds to get accepted in secondary schools (Pellicer 2018). To explain, this meant that the students that came from lower class provinces had to achieve higher results and scores to be accepted in higher education institution. Whereas, the elite students that were from better provinces were chosen even if their scores were lower than the other students.

Other than that, Gulf countries were also affected by a biased educational system, especially during the colonial times. For example, before the 1950s, educational privileges were given to the colonial elites only in the United Arab Emirates and Arab Gulf countries (Burden-Leahy 2009). These discriminating trends were cleared with the establishment of reformed policies in the post-colonial ages. Another type of education discrimination that was present in some Arab countries was in gender differentiation (Al-Muftah 2017). However, with public resistance and calls for public welfare reforms, government policies transformed

these inequalities. Therefore, government initiatives played an important role in developing the mass-education systems in the world.

2.1.2 Globalisation and internationalisation of higher education

Another wave that affected the trends in the higher education industry was globalization and internationalisation. According to Marginson (2010), globalization is the move towards creating one-worldness. It is the interconnection, integration and conversion of local and global systems and players (Marginson 2014). Globalization reduced the boundaries and the borders between the higher education institutions around the globe. The competition between the higher education institutions no longer remained on a local scale, it stretched to the global scale. It is worth mentioning that globalization was highly empowered by the technological revolution and the introduction of the internet at the end of the 20th century (Marginson 2014). This highlights the importance of information technology in higher education. Under the global umbrella, businesses and institutes started competing on a larger scale.

The higher education industry was not different; globalization elevated the level of competition between higher education institutions. These institutions were no longer isolated local players, they were now worldwide competitors. According to Knight (2008), internationalisation in education at the national/sector/institutional level is “defined as the process of integrating an international, intercultural, or global dimension into the purpose, functions, or delivery of higher education at the institutional and national levels” (p. 624). The higher education institutions were expected to cater to a worldwide audience and produce graduates that are equipped with both knowledge and skills that are needed to compete globally (Hammond 2016). Students needed to develop an international awareness level, and higher education institutions were challenged to cater to these demands. To explain, higher education institutions needed to be aware of the global issues and relevant topics and prepare their students for these issues and topics accordingly.

In other words, higher education institutions were considered hubs of knowledge that nurture the mutual understanding and tolerance among students from different cultures and nationalities (Jung 2018). Some higher education institutions in developing countries even started adopting internationally recognized systems in their universities. For instance, in the United Arab Emirates, the American University in Sharjah opened in 1997, which was the first university in the Gulf region that followed an American-style higher education system in its entirety (Noori & Anderson 2013). Many higher education institutions followed the same pattern of adopting international, American or British systems to build their global competitiveness. Moreover, in this global competitive world, higher education institutions were pressured to develop and enhance the accessibility, equity, excellence, and overall quality of their institutes and systems (Guravaiah 2017). In fact, higher education institutions' quality and performance levels were evaluated and ranked globally in a formal manner.

One of the major initiatives that was established during this period of globalization was the global ranking system of universities. Higher education institutions were now getting formally ranked, assessed and benchmarked on a global scale (Jung 2018). All of this was a result of the internationalisation of the higher education industry across the globe. When the higher education institutions started competing with each other from various countries, the benchmarking and quality assurance systems were developed. This imposed more pressure on higher education institutions to improve their efficiency, performance, productivity, and quality of service. In the context of higher education institutions, scholars have concluded that higher education quality is a multidimensional concept that includes various elements, such as: the resources and capabilities of universities, the students' competencies and achievements, the value of the educational programmes, the ratings and university accreditations (Aksu 2018). However, regardless of how different stakeholders view the concept of quality, almost all higher education institutions are concerned with establishing

high quality standards to build their competitive advantage and meet the expectations of the government and society.

It is worth noting that according to Dewi (2018), several universities started participating in mergers or establishing joint programmes to rise their global educational quality rankings. Joining forces usually meant combining the resources and adding value to the overall quality of the newly-formed higher education institution, which in turn could secure higher levels of rankings. Achieving higher rankings meant attracting more students and getting support from various stakeholders, which enhances the overall performance and productivity of the higher education institution – and vice versa. Therefore, mergers are considered one of the ways in which higher education institutions improved their performance and scored higher rankings, locally and globally.

Another way of achieving higher rankings was by moving towards internationalisation. Governments started investing in higher education internationalisation (Hammond 2016). According to Knight (2004), internationalisation is defined as the process of integrating international political, cultural, academic and economic objectiveness into the higher education system. This process had quite a similar effect to globalization of homogenizing the higher education industry on a worldwide level. According to other scholars, internationalisation can be reflected in three main goals: attracting foreign students, recruiting foreign academics to contribute to the research productivity of the higher education institution, and creating a world-class centre for learning (Hammond 2016; Kreber 2009; Tsuneyoshi 2005). When higher education institutions turned to internationalisation, they added value to their overall quality and global rankings. As the higher education institutions started competing internationally, they started elevating their quality and variety of courses and operations. Moreover, scholars stress that, as part of internationalisation, higher education institutions started preparing their students to hold international professions by

developing international curriculums (Takagi 2009). Internationalisation had a similar effect on the higher education industry as globalisation did. For instance, higher education institutions' level of internationalisation plays an important role in their global ranking.

However, in spite of the benefits of internationalisation, it is worth mentioning that some scholars argue that internationalisation made organizations more vulnerable and prone to global challenges, needs, and complexities (Brennan 2008). To explain, before internationalisation, higher education institutions were somewhat shield and protected in their local industries. With internationalisation, the higher education institutions were now exposed to the dynamics in the outer world and was affected by them – vice versa. For example, higher education institutions ranking was now more volatile with internationalisation. One of the key indicators that influence rankings is the international student-staff ratio (Marginson & Van der Wende 2007). In other words, to be internationalized, higher education institutions were expected to have a proportionate rate that represents a balanced ratio of foreign staff and students, which in turn affected their academic ranking.

Furthermore, higher education institutions would score high international rankings when they improve their innovation, research, and retentions levels, and this would help them in building a strategic competitive advantage on a global scale (Marginson & Van der Wende 2007). In addition, when universities become internationalized, the process of the international transferring of credit hours from one higher education institution to the other becomes easier, and that was one of the governmental goals behind pushing higher education institutions towards internationalisation as well (Tsuneyoshi 2005). This move towards internationalisation not only enhanced the overall quality of higher education, but also nurtured the collaborations and partnerships between higher education institutions from all around the world.

Another higher education trend that was influenced by globalization and internationalisation was the establishment of transnational off-shore campuses. Transnational campuses can take different forms, such as branch campuses, replica campuses, and virtual branch campus (Miller-Idriss & Hanauer 2011). This trend is highly prominent in the Middle East region with approximately one third of all global branch campuses located in the region (Miller-Idriss & Hanauer 2011). Moreover, 61% of these offshore campuses are located in the United Arab Emirates (Miller-Idriss & Hanauer 2011). This indicates that the Gulf region is a good host and a target location for transnational campuses and this higher education trend.

However, this trend imposed some inherent challenges for higher education institutions as well. Studies have shown that employees at transnational campuses report lower levels of job satisfaction than employees at home campuses (Wilkins, Butt & Annabi 2018). The employees at the transnational campuses were less happy than employees at the home campuses. Academic staff at transnational campuses or branches are usually less involved in curriculum matters and have less academic freedom, which has been noted as a potential key reason behind their lower levels of job satisfaction (Wilkins, Butt & Annabi 2018). This indicates that it is important to keep the employees involved in academic matters if good levels of job satisfaction are to be achieved.

Therefore, this trend of transnational campuses has its cons and pros for the higher education institutions and for the host country. For example, this trend also led to the movement of students from foreign countries to the Gulf region for higher education opportunities. Many international students travel from abroad to study in Arab countries, especially to the United Arab Emirates and Qatar (Ahmad & Hussain 2017). It is worth noting that this movement must have improved the higher education industry's business in the host countries as well. Also, this trend emphasized on the uniqueness of the culture in the

Arab world. More students and people started being aware of the Arab culture and advancement in the Arab world. The transnational campuses' host countries set examples for the Arab world, which otherwise might not have been known, especially in terms of prominent higher education institutions. Also, with the introduction of transnational campuses in the host countries, the local higher education institutions would level up and improve their quality and academia to face the new competition. This is related to one of the hypotheses and arguments that the researcher makes in this study, which is that the presence of competition influences the effectiveness of the higher education institutions. This will be further explained in the next chapter of this study.

2.1.3 The global cultural convergence of higher education

As noted by the gurus of national culture - Hofstede (1982), Trompenaar and Hampden-Turner (1998), and the GLOBE study of House et al. (2004) – nations and cultures have different characteristics worldwide. In fact, scholars have actually categorized the countries in clusters based on their cultural differences and similarities (House et al. 2004; Inglehart 1997; Ronen & Shenkar 1985; Schwartz 1999). For example, the GLOBE (2004) study, which lasted for a period of a decade and included 62 societies, highlighted nine cultural dimensions: Power distance, uncertainty avoidance, institutional collectivism, in-group collectivism, gender egalitarianism, assertiveness, future orientation, performance orientation, and humane orientation (Appendix 1).

Furthermore, the GLOBE study grouped the countries into ten clusters (Appendix 2) based on their cultural characteristics and unique dimensions (House et al. 2004). In Hofstede's (1982) model, he identifies five dimensions for national culture: Power distance, individualism vs. collectivism, uncertainty avoidance, masculinity vs. femininity, and long-term orientation vs. short-term orientation (Appendix 3). Also, Trompenaar and Hampden-Turner's (1998) model lists similar seven dimensions of culture: Universalism vs.

particularism, individualism vs. communitarianism, neutral vs. emotional, specific vs. diffuse, achievement vs. ascription, sequential vs. synchronous time, and internal direction vs. external direction (Appendix 4). These dimensions indicate that players within same regions are expected to have high levels of uniformity.

Due to these cultural dimensions, along with the aforementioned higher education trends, cultural convergence and re-structuring of higher education programmes were becoming prominent activities in the region. For instance, Gulf and Middle Eastern countries started taking initiatives in tailoring their higher education programmes to accommodate the multi-culturalism and interdisciplinary needs of the global market and international students (Tawil & Baeumer 2018). These initiatives also strengthened university partnerships, academic collaborations and cross-border mergers and acquisitions among higher education institutions (Miller-Idriss & Hanauer 2011). Therefore, mergers helped higher education institutions in moving towards transnationalisation and sustainability. Following this multi-cultural and globalization trend, this study adopts a global perspective on testing mergers' effectiveness in the higher education industry, from the USA and countries from around Europe.

2.1.4 Sustainability in higher education

The concept of sustainability is viewed as an important driver for the improvement and enhancement of higher education institutions. According to researchers, higher education institutions can promote sustainable development by focusing on the three main pillars of sustainability: economic development, social development, and environmental protection (Leal Filho et al. 2018). higher education institutions are continuously looking for ways to implement sustainable development in their institutions and academic programmes. In other words, higher education institutions are responding to the global environmental needs and issues by integrating sustainability measures into their planning and performance evaluation cycles (Leal Filho et. al. 2018). Sustainability started becoming a prominent topic and

measure in the whole higher education industry and higher education institutions' systems and operations.

Moreover, higher education institutions that are perceived as sustainable are considered more favourable; they are regarded to be socially responsible, environmentally aware, and having economic stewardship (Shepard 2007). higher education stakeholders - whether in the form of government bodies, industry players, staff or students - appreciate higher education institutions that care about sustainability issues. Individuals' values, attitudes, and behaviours are generally influenced by such prominent issues (Bloom, Hastings & Madaus 1971). Thereby, keeping this in mind, higher education institutions started designing their goals and learning outcomes in accordance with the concept of sustainable development, which in turn improved their overall favourability and performance. Almost every measure or decision that higher education institutions would take would be linked to the concept of sustainability now. This trend can also be linked to the future foresight competency of higher education institutions – when they foresee the potential global shift towards sustainability and design their strategies accordingly. Organizations should always work on their “readiness for future variabilities” as part of their future foresight (Future Foresight 2019, para. 1).

According to Barth et al. (2007, p. 416), “higher education for sustainable development aims at enabling people to not only acquire and generate knowledge, but also to reflect on further effects and the complexity of behaviour and decisions in a future-oriented and global perspective of responsibility”. In other words, it is important for decision makers to assess and be aware of the consequences of their decisions for a sustainable future. Scholars have emphasized the important role of higher education institutions in developing a sustainable future; they have defined it by having an integration of various elements in the higher education institutions' systems (Barth et al. 2007). In fact, scholars have developed models and frameworks that identify several sustainability pillars for higher education institutions.

According to Wright (2002), to establish sustainability, higher education institutions can develop activities such as:

- Sustainable physical operations.
- Sustainable research.
- Public outreach.
- Inter-university cooperation.
- Partnerships with government.
- Ecological literacy.
- Developing inter-disciplinary curriculum.
- Moral obligation.

Having a combination of two or more of these activities helps higher education institutions in developing sustainability principles in their institutions. Similarly, other scholars have noted that an integrated higher education sustainability system includes elements of education, research, university operations, and external community (Cortese 2003). Therefore, it is evident that establishing sustainability in higher education institutions is achieved by an amalgamation of various elements and activities together. These activities feed into the sustainability of the higher education institutions in the fields related to economy, society, and the environment. They add value to the overall quality of the higher education institution.

Nonetheless, it is worth noting that sustainability is not an easy job to accomplish. Over the past decades, higher education institutions have faced several obstacles along their paths towards establishing and delivering sustainable systems, operations, values, skills, and knowledge to the market (Leal Filho et al. 2018). For instance, with regards to building their sustainable development measures, higher education institutions can face obstacles such as: financial constraints, lack of professionally-trained staff, lack of motivation and knowledge,

lack of affiliations and networks, lack of supporting governmental policies, lack of cooperation with external parties, challenging implementation and assessment strategies (Leal Filho et al. 2018). Therefore, it is important for government and community players to ‘join hands’ in supporting higher education institutions to achieve their sustainability goals.

2.1.5 Neoliberalism, capitalism, and new public management

Another wave that affected the trends in higher education was the wave of neoliberalism, academic capitalism and marketization. Neoliberalism is an economic notion that promotes the free-market activities in which players are left to compete without external influences (Jones 2012; Olssen & Peters 2005). Moreover, neoliberalism advocates for the monetization of all systems, including higher education, to generate profits (Taylor 2017). This ideology has influenced industries and countries all around the world, including the higher education industry. Under neoliberalism, higher education institutions are pressured to compete against each other in attracting students and retaining professionals. Higher education institutions became more standardized and uniformed in their constant war of competition in the neoliberal age (Vaitkevičius & Merkys 2017). They started following unified standards and quality measures to compete in a free and dynamic higher education industry.

Also, the trends of capitalization and marketization of higher education followed dynamics similar to the ones of neoliberalism (Marginson 2014; Olssen & Peters 2005; Slaughter & Rhoades 2004). These trends also transformed the way higher education institutions operate and made them more concerned with generating profits (Hammond 2016; Le Ha & Barnawi 2015). To explain, earlier, higher education institutions were more concerned with the knowledge creation and quality of academics. However, with this new trend, higher education institutions started being concerned with profits – attracting and retaining more students and staff. In fact, higher education institutions started operating like traditional businesses, more or less.

According to Slaughter and Leslie (1997, p. 11), academic capitalism also resulted in “market and market-like behaviours on the part of universities and faculty”. Higher education institutions started functioning as business corporations that compete for market share (Taylor 2017). These trends significantly affected structures and academic programmes in higher education institutions. For instance, some higher education institutions started treating education as a commodity with extreme standardizations of language, curriculums, pedagogy and tests (Le Ha & Barnawi 2015; Levidow 2002). The standardization of the delivery-language was mostly evident in the Arab countries, such as in the United Arab Emirates, where now the English language has become the primary language in higher education institutions (Wagie & Fox 2005). Therefore, neoliberalism, capitalism, and marketization are interrelated in the sense that they redirected the higher education industry into profit-oriented institutions instead of focusing on the sheer value of knowledge.

Influenced by notions of neoliberalism and internationalisation, the concept of New Public Management (NPM) emerged. NPM was basically a reformed style of management that moved towards “marketisation, or the application of business management theories and practices in public service administration” (Tolofari 2005, p. 75). This concept was developed by scholars in the 1980s advocating for lesser differences between the private and public sector (Hood 1995). Under the NPM-based view of management, it was perceived that private organizations employ techniques that lead to higher levels of productivity and profitability. Thereby, there was a rise in the prevalence of NPM among different sectors and industries. This trend affected the higher education industry as well, and it argued that by adopting NPM practices, higher education institutions can improve their efficiency levels and overall performance (Broucker, De Wit & Leisyte 2015). Higher education institutions were now operating as traditional business corporations and not mere collegial structures (Tahar &

Boutellier 2013). Thereby, NPM added value to the higher education institutions in terms of the productivity, effectiveness, and efficiency.

NPM did have positive results and implications on the higher education industry; however, scholars have noted some adverse effects as well. For instance, some higher education institutions reported conflicting interests, ambiguous objectives, budgetary constraints, tight controls, and troubled decision-making during the transformational phase of NPM (Kretek, Dragsic & Kehm 2013; Shattock 2008). For instance, in an attempt to chase profits, higher education institutions might compromise on other academic and quality goals. Therefore, governments and higher education institutions need to re-design the principle of NPM in ways that cater to the unique needs of institutions in the higher education industry to prevent adversities. The development of an NPM model that is tailored to higher education will be an added value.

With the aforementioned waves of change, higher education institutions started participating in mergers more often in an attempt to strengthen their financial-abilities, efficiency levels and competitive advantage (Johnes 2014). According to Indiyati (2016, p. 228), higher education competitive advantage is defined as “the ability of an organization to make a defensive position against competitors, a capability that allows organizations to differentiate itself from its competitors and is the result of critical management decisions” Porter (1985) has identified three strategies for building a competitive advantage; these are: cost strategy, innovation strategy, and quality of service. And according to studies in higher education, the quality of service has proven to be the most important strategy for building a strong and sufficient competitive advantage (Indiyati 2016). However, scholars have noted that some mergers were successful in achieving these objectives while others failed. In fact, according to Sulkowski, Wozniak and Seliga (2019, p. 756), mergers can either lead to an “identification with a new organization and a sense of self-fulfilment, or they can turn

towards rejecting change and frustration of employees”. Thereby, it is important to examine the factors that influence higher education mergers’ effectiveness.

2.1.6 Corona virus disease and distant learning

This study coincided with the breakout of the corona virus disease 2019 globally. In fact, the peak of the pandemic – in the months of March and April 2020 – coincided with the data collection stage of this study. Thereby, the researcher faced some challenges in that stage. This literature review section was revisited to highlight the distant learning trend that came about in the higher education industry due to the pandemic of the corona virus disease 2019. Although this is a very recent incident in the world, there are some substantial scholarly papers already written on the topic. This section will showcase some of those studies, linking it to the newly developed trend of distant learning in higher education.

According to scholars, the corona virus disease 2019 (COVID-19) led to drastic changes in the education sector, as well as in other sectors (Murphy 2020). In fact, Murphy (2020, p. 492) notes that: “following the logic of the exception—that extraordinary times call for extraordinary measures—one common trend in education systems around the world has been to respond to the pandemic with “emergency eLearning” protocols, marking the rapid transition of face-to-face classes to online learning systems”. To explain, with the spread of the pandemic, higher education institutions closed down their campuses and shifted the studies to online and distant learning. Moreover, higher education institutions started reconsidering and redesigning their curriculum and pedagogy (Crawford et al. 2020). That is, the COVID-19 shed light on the strength and agility of the higher education institutions and how responsive they were to this pandemic.

For instance, in Hong Kong, “relevant online teaching training was provided to staff and students. The universities created videos and teaching guides and conducted online workshops to equip staff and students to use various online learning platforms (e.g. Zoom,

Skype, Moodle, and Google Drive)” (Crawford et al. 2020, p. 12). Moreover, to cater for the international students and various time zones, the online lectures were provided in real-time and were recorded (Crawford et al. 2020). Measures such as these reflect the readiness of the higher education institutions to face challenges during times of crisis, such as the COVID-19 pandemic. This also reflects the flexibility and agility of the higher education institution.

On the other hand, in some countries such as South Africa, the student union had to take initiatives to drive the change towards online learning (Kyama, Kokutse, & Dell 2020). Whereas, in some countries, the government took the initiatives of moving all of the learning in higher education towards online teaching, such as in the United Arab Emirates (Crawford et al. 2020). Nonetheless, regardless of the initiator, there is no argument that the current scene in the majority of countries around the globe is distant learning and digital pedagogy. In fact, as nicely put by the scholars, “never has there been a time for a coordinated, collaborative, and collective global response to the best practice principles for online instruction. And in a time of global crisis, there is an opportunity for shared resources and expertise across the world to ensure the education of our students can continue in the face of COVID-19” (Crawford et al 2020). That is, a global pandemic such as COVID-19 has brought the world together into facing this challenge, and a number of scholars studied the best practices that should be followed during such times.

For example, the universities in China responded in a relatively quick manner to the pandemic by setting some controls, services, and trainings in place (Wang et al. 2020). These measures by the Chinese universities were summarized in an articulative way by Wang et al. (2020). Some of the measures mentioned by Wang et al. (2020, p. 2-3) included: “gathering medical experts for emergency research, providing psychological assistance to help social stability, and control personnel flow and innovative teaching”. That is, the higher education institutions focused on medical research to find a cure or a vaccine for the COVID19, they

made mental health a priority and made psychological help available to their personnel and students, and they took care of implementing online education by training their teachers and developing the channels for distant learning (Wang et al 2020).

Nevertheless, scholars have also noted some challenges that higher education institutions are facing due to COVID19. These challenges, based on a study done on Chinese universities, include: “the frontline medical support raises the risk of infecting medical staff, the untested results of the short-term research, the devastating impact on campus economy due to quarantining student groups, and problems in applying information technology in online teaching” (Wang et al. 2020, p. 3-4). That is, when higher education institutions provided emergency medical and psychological support, the front liners of the medical staff will be at higher risks of getting exposed to the COVID19. Moreover, the research that is done to produce short-term results is at risk of having some untested effects or side effects that could be harmful. Also, the campus life and economic side will be affected negatively due to the distant learning measures from home. Furthermore, online learning could be challenged by any technological faults or glitches.

The researcher has provided an example from the Chinese higher education institutions; however, this is the case with almost all of the higher education institutions in the world, more or less. The point to be noted is that the COVID19 – being an extraordinary event, required extraordinary measures that needed to be taken in a swift manner. It is worth mentioning that while some higher education institutions were able and capable to develop and design fully integrative online courses and offerings, others utilized the simple mobile device to provide the distant learning during the pandemic (Naciri 2020). In other words, not every higher education institution shifted to sophisticated online systems or software programmes, some of them turned to the mobiles devices only. This has also been commended by scholars. For example, Al-Emran, Elsherif and Shaalan (2016) have noted

that: “mobile learning helps students to develop technological skills, conversational skills, find answers to their questions, develop a sense of collaboration, allow knowledge sharing, and hence leverage their learning outcomes”. This indicates the benefits of this method.

It is worth mentioning here that some studies during this time of the pandemic looked at the academic performance of students and if it has been affected by the COVID19 measures. Scholars have actually noted an improvement in the performance of students with the distant learning and online education measures (Gonzalez et al. 2020). For instance, a study by Gonzalez et al. (2020, p. 23) concluded that “higher scores are expected due to the COVID-19 confinement that can be directly related to a real improvement in students learning”. This indicates a very positive outcome of this new trend in the higher education industry as well. Other scholars, such as Bao (2020), have actually noted some of the elements that support distant learnings effectivity. These elements are: the tone of the voice, the information technology support, dividing the teaching material into smaller parts, assigning the students with independent activities and self-learning material. It seems that measures such as these have played a vital role in sustaining or improving the students performance even during the challenging times of a pandemic such as the COVID19.

Other scholars, such as Toquero (2020), have also provided a set of recommendations to be followed by the higher education institutions at times of a pandemic like the COVID19. Toquero’s (2020, p. 2-3) recommendations include: “integrate environment and health courses in the curriculum, strengthen environmental policies and hygiene practices, incorporate an online mental health and medical services, migrate courses, align curriculum competencies, scale up teachers’ training for online learning instruction, strengthen research efforts, data monitoring, and evidence-based practices”. These measures are quite similar to the aforementioned measures taken by the Chinese universities as well. More or less, the moral of the story is that the higher education industry has changed its dynamics as a

response to this pandemic. In fact, scholars note that these changes will continue to produce and fixate a new trend in higher education. “The lesson learned from COVID -19 will force a generation of new laws, regulations, platforms and solutions for future cases” (Basilaia & Kvavadze 2020). Thereby, the post-pandemic era of the higher education industry is expected to be different.

In conclusion, as for COVID19, it does not have a direct link to mergers in the higher education industry. However, the point behind mentioning it is that it has introduced a major shift and change in the higher education industry and in the way the higher education institutions operate and perfume. Thereby, it is expected that any merger decision would take this COVID19 – or any pandemic or crisis for that matter – into considerations before venturing onto any strategic decision. It is worth noting that foreseeing the changes that might affect the higher education industry because of such sudden incidents or pandemics is vital for the sustainability, agility, and effectivity of the higher education institution.

2.1.7 Concluding remarks

It is evident from the previous review of the main trends in higher education that one of the common ways in which higher education institutions were coping and adapting to new realities was through establishing strategic collaborations or participating in mergers. The higher education trends and global-change dynamics were pushing higher education institutions towards participating in mergers. However, as noted earlier, it is better for higher education institutions to participate in mergers as a proactive measure rather than a reactive one. In other words, the future foresight of higher education institutions could play a role in their *readiness* for these global changes, rather than their mere *responsiveness* to the trending realities in higher education. Hence comes the importance of having a strong future foresight competency to enhance higher education institutions’ strategic decisions.

The strategic decision of mergers in higher education helped institutions in improving their overall performance and efficiency (Papadimitriou & Johnes 2018). However, it is not easy for higher education institutions to find an appropriate fit and take the final decision of going ahead with a certain merger. Many higher education institutions would initiate the dialogue and seriously consider participating in a merger; however, they would refrain from going ahead with the merger in the end. For instance, a very famous merger that was stopped at the very last stage was between Salem State University and the Montserrat College of Art (Woodhouse 2015). Although both institutions were academically compatible, the merger between these two higher education institution was called off after extensive assessment and critical analysis due to unfavourable financial expectations (Woodhouse 2015). Thereby, participating in a merger is considered quite a complex and difficult strategic decision for higher education institutions to make.

2.2 Strategic management

Before studying any concept, it is important to know its historical developments and definition. This helps in understanding the concept and its background. The concept of strategic management goes back to the beginning of the 18th century when it was originally called 'business policy' (Kazmi & Kazmi 1986). Business policy was a topic first established by the Harvard Business School as an integrative course in Management (Kazmi & Kazmi 1986). This course was aimed at teaching business students how to pull together knowledge from various fields to analyse and solve complex business issues. This concept and course curriculum evolved with time across different countries and became what we now know as the field of 'strategic management'. The first time this term was introduced was through a report issued by the University of Pittsburgh in a Research Symposium in 1977 (Kazmi & Kazmi 1986). Strategic management is a field that involves adding and analysing various

elements together to solve some issue or achieve some goal. In doing so, strategic managers employ different analytical tools, such as the strategy tripod.

However, it is worth mentioning that some scholars still recognize the field of strategic management as one that was developed in the 70's whereas - in its essence - it actually goes back to the year 1908 (Hambrick & Chen 2008; Kazmi & Kazmi 1986; Peng 2009). As noted earlier, strategic management was taught as the subject of business policy in business schools in the past. In fact, according to Kazmi and Kazmi (1986), "strategic management is the theoretical framework for business policy courses today". Nonetheless, regardless of its age, this is a highly regarded field of study amongst scholars and practitioners. In simple words, strategic management refers to the activity of planning and implementing strategic goals and decisions (Mohuba & Govender, 2016; Sułkowski, Seliga & Woźniak 2019). Since its inception, various scholars have constantly worked to add new knowledge to grow this field. The strategy tripod is one of the most prominent additions to this field.

2.2.1 Strategy tripod

The strategy tripod theoretical lens combines three strategic perspectives: the institution-based view, the industry-based view, and the resource-based view. These three views did not come about at the same time, rather scholars built on each other's works gradually. The view that was initially introduced was the industry-based view by Porter (1979) in the late 70s and early 80s. Porter emphasized the importance of a strategic tool that analyses the competitive forces of any industry. Porter identified five forces that are critical in forming strategies, these are: the competitive intensity, the power of suppliers, the power of consumers, the availability of substitutes and the level of entry barriers (Porter, 1979). According to Porter (1979), by applying these analytical five forces, one can assess the

competitiveness and attractiveness of a certain industry (which pertains to the industry-based view of the strategy tripod).

To explain, if there are high levels of rivalry in the industry, then the profits and market share of the players will be lower. That is because more players would be competing against each other and dragging the prices down. In addition, if there are only a few suppliers for this particular industry, then the profits will be lower. That is because suppliers will have the power to bargain the prices and thus the costs will be higher for the industry players. Also, if the number of consumers is low or if there are only few consumers available for the offered products or services, then the consumers can bargain the prices down. This means the profits for the industry players will be lower. Additionally, if it is easy to enter this industry, it means the profitability of the current players will be lower as well. That is because there will be more chances of having new entrants and competitors. This in turn will decrease the attractiveness of the industry as well. Last but not the least, if there are alternatives to the offered products or services, this means consumers might switch to the competitors easily, which could decrease the levels of profitability and attractiveness of the industry. As per Porter (1979), these five forces can help decision makers in making strategic decisions about the industry or the products or the services for their business. However, scholars noted that these factors are not enough in deciding to make strategic plans and shaping strategies.

Scholars built another perspective that aids in shaping strategy, and that notion developed the resource-based view (resource-based view) which was established by Barney in 1991. While the industry-based view looked at the external factors that influence organizations, the resource-based view looked at the internal factors. Barney (1991) identified and listed key characteristics of the resources that can give an organization sustainable competitive advantage. He established a framework that identifies four main resources' attributes that generate competitive advantage. These attributes are: value,

rareness, imperfect imitability and substitutability (Barney 1991). For instance, the resources need to be unique and with special features to be rare and not imitable. Also, the resources need to be of certain characteristics that add value to the organization and the achievement of its goals and objectives. According to Barney (1991), these attributes build the competitive advantage of institutions. Nonetheless, further details regarding both the industry-based view and the resource-based view will be discussed in later sections of this literature review chapter. However, it is worth noting that while Barney was developing the internal analysis' theoretical lens of the resource-based view, other scholars were looking at strategic analysis from a different perspective as well.

Other than Porter (1979) and Barney (1991), scholars such as Meyer and Rowan (1977), DiMaggio and Powell (1983), and Scott (1987) were also developing strategy related theories that focused on a more holistic perspective of analysing internal and external factors. They looked at the interaction level of both factors; they analysed the institutional field in which institutions operate. They looked at the interactions between the various players in a field. In other words, this perspective looked at the 'rules of the game' and was called the institution-based view (Peng et al. 2009). The institution-based view argued that the analysis of the 'context' was missing from the other views. Thereby, Yamakawa, Peng and Deeds (2008) and Peng et al. (2009) introduced the institution-based view as a third leg – to be combined with the industry-based view and the resource-based view – and developed the strategy tripod integrated theoretical framework.

It is worth mentioning that some scholars still argued that the context is just 'background noise' (Peng et al. 2009; Yamakawa, Peng & Deeds 2008). In other words, some scholars considered the context and the interactions in the institutional field as something of minor importance. They argued that it could be neglected. Whereas, other scholars argued that there is a 'dynamic interaction' within fields that needs to be considered in strategies

(Peng et al. 2009; Yamakawa, Peng & Deeds 2008). In other words, these scholars argued that the interaction within fields could be of an altitude that influences businesses and institutions in a significant manner and should be taken into consideration when making strategic decisions. The strategy tripod framework supports this view by including all three perspectives in a tripod, which includes the external industry, the internal resources, and the institutional field. This study adopts the strategy tripod as the theoretical background.

The strategy tripod includes the resource-based view (resource-based view), the industry-based view and the institution-based view (Su, Peng & Xie 2015). In previous studies, these three views were individually used to determine the competitive advantage of firms and assess their performance. However, when used separately, the resource-based view focused on the internal strengths and weaknesses of a firm only, the industry-based view focused on the external forces that affect a firm's position in a market and the institution-based view focused on the interaction-level between a firm and its environment (Ju, Zhao & Wang 2014). Whereas, the strategy tripod perspective integrated these three legs, instead of analysing them as stand-alone factors, and provided a more insightful understanding of how a combination of these elements affects firms' performance and chances of success (Peng et al. 2009). In other words, the strategy tripod perspective gave scholars and practitioners a new way of analysing an amalgamation of factors that could influence strategic decisions. It represented a more holistic and thorough way of analysis. The strategy tripod's individual three perspectives have been applied on various areas of business activities, generic ones and the ones related to mergers.

For example, scholars have applied the resource-based view in studying the strategic alliances among businesses – which is similar to the phenomenon of business mergers. There are two main types of strategic alliances: the *link* alliances in which “the partners contribute asymmetric knowledge” and the *scale* alliances in which “the partners provide similar

knowledge” (Dussauge, Garrette & Mitchell 2000, p. 100). Scholars have noted that one of the main motives of participating in an alliance is the added value of the knowledge sharing and the learning process. In fact, when applying the resource-based view on this activity, Peng (2001) emphasized that the resource-based view primarily focuses on the organizational learning aspect of strategic alliances. Studies have concluded that such alliances have enhanced the competitive advantage of the involved parties and strengthened their performance (Fahy et al. 2000; Hamel 1991; Luo & Peng 1999; Lyles & Salk 1996; Makino & Delios 1996).

Other scholars have also used the strategy tripod or its views in assessing different business activities, such as: ventures in emerging economies, export behaviours, entry decisions for outward investments and the positioning of foreign firms (Su, Peng & Xie 2016). However, to the researcher’s knowledge, the strategy tripod perspective has not been applied on the phenomenon of mergers in the higher education industry. There have been some studies that used the strategy tripod perspective in assessing different business ventures (Su, Peng & Xie 2016). However, to the researcher’s knowledge, the integrated strategy tripod analysis is yet to be applied in the context of mergers in higher education.

In addition, the strategic approach of future foresight is relatively very new in the scholarly field and has not been employed in higher education studies either. Thereby, this study will explore the application of the strategy tripod and future foresight in higher education, with higher education institutions mergers being the studied activity. Some studies have looked at the topic of mergers and acquisitions in higher education through the lens of Organization Theory (Liu, Patton & Kenney 2018). Other scholars, such as Manona (2015) and Ngcamu (2017), have studied cases of higher education mergers through other managerial lenses. However, there is a need to analyse the phenomenon of mergers in higher education from a systematic and holistic perspective that factors in multiple dimensions and

elements that influence this decision. This study adopts the strategy tripod perspective in analysing mergers in higher education.

Based on the strategy tripod's theoretical background (Yamakawa, Peng & Deeds 2008), this study will test and explain the impact of institutional factors, industry conditions and organizational resources on the effectiveness of merger in the higher education industry. According to scholars, the strategy tripod approach's value is in its integrated perspective versus the earlier fragmented perspective of analysis (Lu, Liu & Wang 2011). In other words, before the development of the strategy tripod framework, scholars would analyse decisions based on isolated perspectives, more or less. However, with the development of the strategy tripod framework, the studies became more integrated and holistic. This study is adopting the strategy tripod framework for this reason as well; for its holistic and integrated perspective. Besides, this study's novel contribution also will lie in its use of the future foresight element, in addition to the strategy tripod, in the explanation and analysis of the factors that influence the effectiveness of higher education mergers. Thereby, the main purpose of this study is to provide a more insightful understanding of how a combination of various elements influence mergers' effectiveness in the higher education industry. Moreover, according to the literature, higher education mergers result in issues related to the administrative and management fronts more than the academic front (Safavi & Håkanson 2018). Therefore, it is relatively more important to put the spotlight on the strategy-related aspects of higher education mergers.

2.3 Mergers and business decisions

Participating in a merger can be based on different reasons and can have different forms. A merger is defined as the activity in which two or more entities unite to formulate a new entity, by combining their assets, liabilities and equity (Reis, Carvalho & Ferreira 2015). Generally, merger-decisions are taken as a means to grow or sustain a business. Mergers can take place within local boundaries or be of a cross-border nature. Mergers are considered

cross-border when the two firms are from different countries. Cross-border merger decisions are relatively more difficult to be made because they are concerned with a foreign market. Firms and organizations need to be careful in their selection of entry modes and strategic plans when it comes to expanding a business in a foreign country (Kogut & Singh 1988). Unlike a domestic market, a foreign market can be influenced by unfamiliar external pressures and internal challenges that need to be well considered before making a cross-border decision. According to researchers, one of the most important and challenging decisions that firms need to make when they are considering expanding their business internationally is choosing the right market and the best entry mode (Ahi et al. 2017). Similarly, choosing the right fit is equally important for local mergers.

Firms take merger decisions usually to expand, grow and develop their business. They expect that the merger will add future value to their business and improve their financial performance. Theoretically, mergers are expected to improve efficiency, economies of scale, economies of scope, and cost management of the universities participating in it (Johnes 2014; Manona 2015). However, according to King et al. (2004), research has shown no evidence that mergers have contributed to the improvement of the organizational performance. In fact, some research showed that a great number of mergers and cross-border mergers prove to be unsuccessful and create a negative value with problematic consequences (Rees & Edwards 2009). This indicates that more scrutiny is required in the due diligence process prior to making any merger decisions.

Studies have found various reasons that cause the failure of mergers. According to Buono and Bowditch (1989), one of the main causes of merger failure is the poor management of human resources. The poor management of human resources can be reflected in the dissatisfaction of the personnel or the low retention levels. In addition, poor communication and low employee engagement levels are also indicators of poor human

resource management. In other words, the employees go through a major change when they are part of a merger, and the management need to prevent and address any conflicts or distress to operate effectively (Cording, Christmann & Bourgeois 2002). Therefore, the management needs to be careful and skilful about how to handle their human resources.

Researchers have also concluded that having cultural differences between the two involved firms can also weaken the whole merger (Chatterjee et al. 1992). To explain, cultural differences might refer to the style of management, the communication means, the appraisal systems, etc. When these organizational cultural elements vary and are drastically different between the merged higher education institutions, this can create an environment of conflict or discomfort. This discomfort or conflict, if not handled properly or effectively by the higher education institution's management and personnel, might result in the dissolution of the merger. Furthermore, these issues are amplified when it comes to cross-border mergers, since the expected cultural variances between the two or more merged institutions is more. Therefore, cultural distance can negatively impact mergers' effectiveness, especially if it is a cross-border merger.

Moreover, other studies note that one of the things that adversely affect a merger is when the management ignores or underestimate the power of labour unions (Antila 2006). Especially in some countries, trade unions have good amounts of power, authority, and influence over the dynamics in an institute. Thereby, managers need to be aware of these trade unions and how powerful they are. Whenever necessary, and whenever deemed effective, the managers need to include the trade unions in the decision-making process and dialogue. This is especially important in cross-border mergers. In other words, managers in mergers, and especially in cross-border mergers, need to build a good relationship with the foreign market's labour unions to gain their cooperation and support. This will help in having a smooth transitional and implementation phase for the merger.

Other studies show that post-merger integration process and the transfer of capabilities play a vital role in the success or failure of the business (Haspeslagh & Jemison 1991). Cartwright and Schoenberg (2006) also support this view and emphasize on the importance of the mergers' integration strategy and implementation process. Ineffective and inefficient integrations can lead to the failure of a merger. To explain, sometimes the merger joins two or more institutions that are fit to merge; however, due to a poor integration phase, the whole merger fails. That is, sometimes the merger is managed by incompetent managers and leaders that lack the right skill set to lead the newly-formed institution post-merger. For instance, if the managers neglect taking care of the communication and transparency during the integration and implementation phases, this could lead to conflicts and organizational issues that result in the ultimate dissolution of the whole merger.

Thereby, the failure of mergers, whether local or cross-border, has been linked to several distinct factors, but there is still a need for an integrated framework that can systematically address the main factors that affect these mergers. With the rapid increase in the number of mergers, and the high rates of their failure, there is a need for an integrated analysis of multidisciplinary factors that affect mergers' decisions and mergers' effectiveness (Rees & Edwards 2009). Although this study will not include multidisciplinary factors, it will include an amalgamation of factors that influence higher education mergers from various angles and aspects. This study will identify one factor from the internal resources perspective, from the external industry perspective, from the interactional institutional field perspective, and from the future foresight perspective that influence mergers.

It is also worth mentioning that with regards to cross-border mergers, researchers have particularly noted that the international business field of study still lacks the theoretical richness that may have an immense contribution to the literature and practice (Bello & Kostova, 2012). However, this study is particularly focusing on higher education mergers,

and they are usually local mergers. Thereby, this study's overall objective is to address this gap through developing an integrated framework that combines the main factors that impact the effectiveness of mergers from a strategy tripod perspective and a future foresight perspective. Details of these perspectives will follow in the later sections of this literature review.

Nonetheless, with the rise of globalization, universities and higher education institutions are now considered a worldwide marketable business that needs to compete with players beyond their national borders. There are less boundaries and borders between countries' higher education systems and institutions nowadays. Higher education institutions are pushed to adopt new ways to compete, survive, and sustain their operations. Higher education institutions are pressured to adopt new business structures and strategies to enhance their productivity, effectiveness, and competitiveness (Hammond 2016). Higher education is a global business nowadays and universities need to attract and retain their customers and employees (Melewar & Akeel 2005). The customers being the students and the employees being the faculty and administrative staff. Although, it is worth mentioning that some scholars have even listed the faculty and academic staff as 'customers' of universities (Melewar & Akeel 2005). That is to highlight the importance of the staff and faculty of a higher education institution.

Other than that, universities are now becoming more aware of the importance of corporate identity and strategic branding for their organizations (Wilson & Elliot 2016). Thereby, higher education institutions are looking for ways to create a sustainable competitive advantage for themselves, which usually involves taking strategic decisions that will improve their efficiency and cost-effectiveness. One of the popular decisions that higher education institutions are opting for to survive the fierce competition and financial pressures is participating in mergers (Millett 1976). Scholars have noted various motives for higher

education institutions to participate in mergers, such as “eliminating duplicative programs, increasing academic integration and collaborations, and diversifying academic profiles” (Cai 2019, p. 4). In other words, higher education mergers are ways to improve the efficiency and effectivity of the institution.

Geodegebuur (2012) have also stated that higher education mergers take place to “position the new institution for the global competition for reputation, staff and students” (p. 7). For instance, sometimes a weaker-reputation higher education institution would merge with a stronger-reputation higher education institution to increase their reputation and attract more and better-quality staff and students. However, all of these motives and drivers somewhat pool into building an overall competitive advantage to survive in the higher education industry. In fact, according to the literature, the main drivers for mergers in the higher education industry are to increase the higher education institution’s competitive advantage in terms of its effectiveness in the economies of scales and economies of scope by improving its: (Chen, Wang & Yang 2009; Harman & Harman 2003; Leslie, Abu-Rahma & Jaleel 2018; Sukboonyasatit, Thanapaisarn & Manmar 2011)

- Research output: The quality and quantity of higher education institutions’ research output could be an indicator of their effectiveness. In other words, the better the research output, the better the higher education institution’s productivity and effectiveness levels. Therefore, to measure if a merger has improved the effectiveness of the participating higher education institutions or not, the research output could be utilised as an assessment indicator.
- University ranking: Higher education institutions with higher university rankings prove to be better in their levels of effectiveness in the economies of scales and economies of scope. The university rankings are good indicators of the quality of the higher education institution. Therefore, mergers are considered effective when they

result in improving the rankings of the participating higher education institutions in comparison to their rankings before participating in the merger.

- Students retention: Higher levels of students' satisfaction and retention rates are indicators that the effectiveness of the higher education institute is improving. Therefore, higher education mergers are considered effective when they result in improved student retention rates in the post-merger period.
- Student enrolments: One of the indicators of the effectiveness of higher education mergers is an increase in the student enrolments rates. In other words, one of the drivers of participating in mergers in the higher education industry is to enhance the competitive advantage by increasing the student enrolment rates.
- Quality of teaching: One of the indicators of the effectiveness of a higher education merger is the improved quality of teaching in the newly formed merged higher education institute. That is, when the quality of teaching is better in the post-merger period – in the merged higher education institution – than what it was in the pre-merger period, the merger could be considered an effective merger.
- Quality of academic service: Higher education institutions provide a number of academic services to their students and staff, such as: academic advisory, library services, research support, and curriculum development, etc. Some higher education institutions participate in mergers to enhance the quality of these academic services. Therefore, one of the indicators of the effectiveness of a higher education merger is the betterment of the quality of the provided academic services.
- Differentiation in course offerings: One of the outcomes emerging from an effective merger in the higher education industry is an increased differentiation in the course offerings of the higher education institution. In other words, when two or more higher

education institutions merge together, they consider increasing the variety of their course offerings. This factor contributes to the effectiveness of the merger.

- Clarity of direction and policies: Higher education mergers that establish a clear direction for the merged higher education institution and that put in place clear policies tend to prove to be relatively more effective than others.
- Sustainable management: Having sustainable management teams and systems is important for higher education mergers to be considered sustainable and not fail in the long run. In other words, the effectivity and sustainability of the higher education merger is somewhat contingent on the sustainability of the management of this higher education institution(s) merger.
- Aligned leadership strategy: One of the key factors that contribute to the effectiveness of a higher education merger is the degree of alignment in the leadership strategy that unite the participating higher education institutions together. That is, regardless of the leadership strategy that was in place within each higher education institute individually prior to the merger, the newly formed merged institute needs to have a properly aligned strategy. In other words, the leaders and managers of the merged higher education institute need to formulate and implement a strategy that is in alignment with the goals and objectives of the merger.
- Brand and reputation: If there is an improvement in the reputation and the brand name of the merged higher education institution, then this is one of the indicators of an effective higher education merger.
- Financial success and tuition revenue: The financial performance of the higher education institution is considered one of the indicators of the effectiveness of the institute. Therefore, one of the indicators of the effectiveness of higher education

mergers is the improvement in the financial performance of the higher education institutions in the post-merger period in comparison to the pre-merger period.

- Return on investment: Higher education institution invest capital and resources into their institutions. The return on this investment is then measured by specific metrics and ratios, such as the return on investment ratio. The higher this ratio the more likely it is that the higher education institutions' merger is effective.
- Internal and external communication: The effectiveness of the communication in the higher education institute is linked to the effectiveness of the higher education merger. That is, one of the indicators of a successful and effective higher education merger is establishing effective means of communication - whether that is within the higher education institution itself or between the higher education institute and the external environment. In other words, to assess the effectiveness of the higher education merger, one can look at the effectiveness of the internal and external communication in that merged higher education institution.
- Employees' belonging: One of the challenges that leaders of higher education mergers face is the resistance to change from their personnel. This resistance could undermine the success and effectiveness of a merger. It affects employees' satisfaction levels and sense of belonging. Therefore, if a merger succeeds in establishing and guarding the employees' sense belonging, this could be an indicator of its effectiveness.
- Improved cultural and social activities: The working culture and the social activities that the higher education institutions have influence the effectiveness levels of these institutions. The same thing goes for mergers in the higher education industry. In other words, the better the working culture and social activities in the merged higher education institution, the more likely it is that it succeeds and is effective.

Based on the reviewed literature, the aforementioned factors contribute to the effectiveness of mergers in the higher education industry (Chen, Wang & Yang 2009; Harman & Harman 2003; Leslie, Abu-Rahma & Jaleel 2018; Sukboonyasatit, Thanapaisarn & Manmar 2011). However, scholars have not necessarily put any order of importance for these factors when it comes to their contribution to the effectiveness of mergers in the higher education industry. The relevance of these factors in this study is to use them to determine the level of the higher education mergers' effectiveness – from the perceived assessment and point of view of the managers in the studied 14 merged higher education institutions.

Higher education merger effectiveness				
Academic performance	Leadership and management	Financial performance	Organizational quality	Employees' satisfaction
Research output Student retention Student enrolment Quality of teaching Quality of academic services Differentiation in course offerings	Clarity of direction and policies Sustainable management Aligned leadership strategy	Financial success Tuition revenue Return on investment	University ranking Brand and reputation Communication	Employees' belonging Working culture Social activities

Table 1: Higher education merger effectiveness indicators.

Other than that, it is worth mentioning that the higher education industry is considered a unique industry. Scholars have noted that the higher education industry has a unique complexity to it (Romanenko & Lisyutkin 2018). That is because – unlike other industries – it caters to a variety of stakeholders and parties. According to Parker (2011), higher education institutions need to serve, collaborate, and engage with various levels of stakeholders. These stakeholders include: the government, the community, the accreditation bodies, the consultants, the industry, the researchers and academics, the university management and students. Although, the researcher argues and notes that the higher education industry is not necessarily the only complex industry. Other industries are worth studying as well. For instance, the healthcare industry has similar complexities of dealing various levels of stakeholders and regulatory bodies, such as the government, the patients, the community, the accreditation and quality assurance bodies, the researchers and academics, and the internal

staff and management. However, the higher education industry is certainly one of the unique industries that is well worth studying and investigating.

2.4 Change management

Before venturing on presenting the literature that is related to higher education or mergers in the higher education industry specifically, it is worth exploring some of the change management literature – especially since mergers are considered a ‘change’. One of the most famous and classic change management models is Kotter’s model (1996). Kotter is considered one of the gurus in the field of change management and he has developed an eight-step model on leading change. This model is explained in the below steps (Appelbaum 2012, p. 765-766): “(1) establish a sense of urgency about the need to achieve change – people will not change if they cannot see the need to do so; (2) create a guiding coalition – assemble a group with power, energy and influence in the organization to lead the change; (3) develop a vision and strategy – create a vision of what the change is about, tell people why the change is needed and how it will be achieved; (4) communicate the change vision – tell people, in every possible way and at every opportunity, about the why, what and how of the changes; (5) empower broad-based action – involve people in the change effort, get people to think about the changes and how to achieve them rather than thinking about why they do not like the changes and how to stop them; (6) generate short-term wins – seeing the changes happening and working and recognizing the work being done by people towards achieving the change is critical; (7) consolidate gains and produce more change – create momentum for change by building on successes in the change, invigorate people through the changes, develop people as change agents; and (8) anchor new approaches in the corporate culture – this is critical to long-term success and institutionalizing the changes. Failure to do so may mean that changes achieved through hard work and effort slip away with people’s tendency to revert to the old and comfortable ways of doing things.”

These eight steps are very well regarded in the scholarly field; however, there are some scholars that had some reservations on some of these steps. For instance, Buchanan et al. (2005) saw that change is better lead when it is not rushed. In other words, in Buchanan et al.'s view, creating a sense of urgency – as advised by Kotter – could actually harm the change process and not allow the people to adapt well. Buchanan et al. (2005) also noted that rushing change might create some sort of fatigue and decay too. On the other hand, Kobi (1996), supports the notion of creating a sense of urgency when leading change, provided that a proper support system is put in place. That is, everything should be clearly communicated to the people or employees, with a clear positive outlook towards the intended change and vision. Kobi (1996) also emphasises on the importance of creating a support and guiding coalition to lead the change, with the sense of urgency.

According to Kotter (1996, p. 53), the guiding coalition should include people that have the following characteristics: “1) position power: enough key players on board so that those left out cannot block progress; 2) expertise: all relevant points of view should be represented so that informed intelligent decisions can be made; 3) credibility: the group should be seen and respected by those in the firm so that the group’s pronouncements will be taken seriously by other employees; and 4) leadership: the group should have enough proven leaders to be able to drive the change process”. It is also important to note that scholars have emphasised that managing change is not a job that can be done single-handedly by one person (Applebaum 2012). In other words, for an effective change management, a well-qualified coalition or group of people is vital to lead that change.

Furthermore, as noted in Kotter’s eight steps (1996), a clear vision is a must for leading and managing change effectively. According to Appelbaum (2012), this clear vision notion has been supported by various scholars as well. However, some scholars highlighted that a clear vision might not be as important as an effective execution plan and process (Cole

et al. 2006; Paper et al. 2001). In other words, even if there was a clear vision stated for the intended change, the execution and how the change is actually implemented is what makes the difference between success and failure. The researcher of this study supports both notions. To explain, it is very important to have a clear direction that is guided by the change vision. It is also important that this vision is translated into appropriate steps through the execution and implementation.

Another aspect of Kotter's change management model that was contested by other scholars was focusing on short-term wins (Appelbaum 2012). For instance, Boga and Ensari (2009) highlighted that there is a very fine line between focusing on the short-term wins and taking care of the long-term effects. They stressed that this often creates complex issues for the managers that are leading change. In fact, Boga and Ensari (2009) noted that a balance should be found between these two; the short-term wins and the long-term targets. That is, managers and leaders of change should not put all their efforts in creating or celebrating short-term wins that they neglect to plan or create momentum for the longer-term change. In fact, sometimes it is better to delay a small short-term win in order to get a larger long-term win instead, especially at times of change.

Nonetheless, a number of other scholars strongly supported Kotter's short-term wins notion. For instance, Pietersen (2002) noted that short-term wins build self-confidence and believe that the long-term success is possible. Also, Marks (2007) noted that celebrating short-term wins gives some sort of reassurance that things are going in the right direction towards the longer-term win. In other words, in times of change, the fear and resistance in people towards that change could be managed and mitigated by bringing their attention to short-term wins. Seeing that things are working out in the short-term gives a sense of safety and assurance to the employees that if things are going well now then they will be well in the future too. Nevertheless, both wins are important and the key is to balance both of them out.

Other than that, it is worth mentioning that some scholars have stressed that sentiments of enthusiasm and energy are as important in the change process as the steps followed or the technical aspects. The enthusiasm and energy of the leaders and the coalitions or support groups carry the change momentum forward, from the short-term wins to the long-term effect (Applebaum 2012; Coleman & White 1998; Jick 1995). This could also be linked to the recommended leadership styles for each phase of the change processes. That is, scholars have noted different leadership styles for different phases of change (Cameron & Green 2019). To explain, scholars have noted different inner and outer traits and characteristics that leaders are recommended to have during the change phases.

For instance, during the initial stages of change, the leader is advised to be influential, understanding, and good at managing emotions (Cameron & Green 2019). This is very important because during the initial stages people often have fearful emotions and concerns, and effective leaders should have the skills to listen to these concerns and attend to them. Whereas, during the mid-stages of change, the leader is advised to have good social and organizing skills, adaptability, and he or she should maintain energy in spite of any setbacks (Cameron & Green 2019). This is extremely important because it is usually during the middle phases that knock-backs or challenges could occur, and so the effective leader should stand put and have the sufficient strength and skills to face these obstacles and maintain the momentum towards the ultimate change. Lastly, during the completion stages of the change, the leader should be noticing and rewarding the achievements, sharing the success, and taking time to reflect and give constructive feedback (Cameron & Green 2019). This is vital as it will draw the picture for the future direction of the institution and create further purpose.

Another model of change management that is worth mentioning is of the guru Kurt Lewin (1951). Lewin proposed a change management model that included three main steps: unfreeze, move, refreeze (Lewin 1951). These three steps were well explained in a simple

and summarized manner by Cameron and Green (2019): “The first step involves unfreezing the current state of affairs. This means defining the current state, surfacing the driving and resisting forces and picturing a desired end state. The second step is about moving to a new state through participation and involvement. The third step focuses on refreezing and stabilizing the new state of affairs by setting policy, rewarding success and establishing new standards” (p. 191). In other words, the leaders should first define the current situation that needs to be changed, they need to showcase the reasons behind the change, they need to set the new vision, they need to include others to drive the change, and lastly they need to ensure that the change is fixed and supported by policies.

Also, it is worth mentioning that Lewin’s model is as if a very simplified version of Kotter’s change management model. In other words, if we take the first step in Lewin’s change model – unfreeze – we could fit the first 2-3 steps of Kotter’s model in there, and so on. As if it is an extremely summarized representation of Kotter’s model, with a few details out. In fact, some scholars have criticized Lewin for over-simplifying the change management process (Cummings, Bridgman & Brown 2016). Whereas, other scholars have regarded it highly (Cummings, Bridgman & Brown 2016). Nonetheless, in the researcher’s view, it would be good for leaders to tailor their own course of action or change management plan, depending on their situation and resources.

In conclusion, this section is presented here to be linked to the strategic decision of mergers in the higher education industry. Mergers are considered some sort of a change. Thereby, it is crucial that the leaders and decision makers are well aware about the prominent and classic change management models before venturing to lead one. These models could create the base line for the change management process that underpins the merger process. In addition, as mentioned above, it is important for the leaders to be also aware of the requirements of each stage in terms of the leadership traits and characteristics. Each stage

could require a unique way of handling the people and situation, based on the phase and context. Therefore, this section has been incorporated as part of this literature review.

2.5 Crisis management

This study coincided with the period of a pandemic called Corona Virus Disease 2019 (COVID19). The pandemic affected almost all the countries and industries around the globe. It was declared to be a time of crisis and extraordinary measures were taken to face this pandemic. Further details about the specifics of this pandemic and how it affected the higher education industry will follow in the higher education trends section of this literature review. However, the researcher saw it logical to have a section in the literature review that is dedicated towards crisis management to showcase some of the key concepts and scholarly works in this field. That is, whether a decision maker is going for a strategic merger or another kind of strategic decision, a proper crisis management plan – or backup plan – is ought to be in place. In other words, institutions, including higher education institutions, need to have a certain level of flexibility and resilience to face the challenges that accompany times of crisis.

Before mentioning the ways in which a crisis could be managed or how resilience could be built, the researcher will present a brief definition of the concepts. Based on the study of Williams et al. (2017): a crisis is an unpredictable and surprising event that has a high impact on something – whether that is a person or an institution or else – and it risks the survival and viability of that something. Thereby, the pandemic of COVID19 is clearly a crisis since it was something unpredictable, had a great impact on the world's dynamics, and created a sense of an emergency and risk. On the other hand, scholars such as Sommer and Pearson (2007) and Williams et al. (2017), explain the concept of crisis management as the act of coordinating the available resources and stakeholders in an uncertain situation to bring back a disturbed system into its alignment. In simple words, it is the way institutions handle a

crisis in an effective manner with the available resources to normalize the environment as much as possible. To do this, there are a few steps or responses that could be followed.

According to a Harvard Business Review report issued in February 2020, “the key goal in managing dynamic and unpredictable challenges is resilience – the ability to survive and thrive through unpredictable, changing, and potentially unfavourable events” (Reeves, Lang & Carlsson-Szlezak 2020, p.5). In other words, if the higher education institutions want to survive and sustain their effectivity and performance during challenging times, such as during the current times of COVID19, they need to be resilient. The same Harvard Business Review report also mentioned a few main responses that institutions could follow at times of a crisis. These key responses are: diversity, modularity, evolvability, prudence, and embeddedness” (Reeves, Lang & Carlsson-Szlezak 2020). These concepts are briefly explained in the below bullet points based on Reeves, Lang and Carlsson-Szlezak (2020, p. 5-6):

- “Diversity: Having multiple approaches to fulfilment can be less efficient but more flexible and resilient in crisis situations. Equally a diversity of ideas can greatly enhance solution development. Put together a cognitively diverse crisis management team that will have more ideas about potential solutions, especially if the corporate culture encourages expression of and respect for diverse perspectives. Beware of treating the crisis in one-dimensional manner — as a financial or logistical problem only, and staff your crisis team accordingly”.
- “Modularity: Highly integrated systems may be efficient, but they are vulnerable to avalanches of knock-on effects or even total system collapse if disturbed. In contrast, a modular system — where factories, organizational units or supply sources can be combined in different ways — offers greater resiliency. When a key brake valve supplier for Toyota was burned to the ground some years ago, supply was restored in

just days because of the ability to swap production between suppliers, even of very different components. Ask how you can rewire your supply system in a modular manner both in the short and longer term”.

- “Evolvability: Systems can be built for optimization and peak efficiency or they can be built for evolvability — constant improvement in the light of new opportunities, problems, or information. Responses to dynamic crises like Covid-19 put a premium on evolvability. There is no knowable right answer, and any predetermined answer is likely to be wrong or to become obsolete over time. But it is possible to iterate and learn towards more effective solutions. While many lessons will be learned in retrospect, doing something now, seeing what works and remobilizing around the results is likely to be most effective strategy in the short term”.
- “Prudence: We cannot predict the course of events or their impacts for Covid-19, but we can envision plausible downside scenarios and test resilience under these circumstances. We can run scenarios for a widespread global epidemic, a multi-regional epidemic, and a rapidly contained epidemic, for example. It would be prudent for companies to take a fresh look at worst case scenarios and develop contingency strategies against each.”
- “Embeddedness: Companies are stakeholders in wider industrial, economic, and social systems which are also under great stress. Those who fail to look at their supply chains or ecosystems holistically will have limited impact. Solutions that solve for an individual company at the expense of or neglecting the interests of others will create mistrust and damage the business in the longer term. Conversely, support to customers, partners, health care, and social systems in a time of adversity can potentially create lasting goodwill and trust. A key element of dealing with economic stress is to live one’s values precisely when we are most likely to forget them.”

While the above-mentioned responses are a bit general, they can be tailored and applied on higher education institutions. In fact, according to scholars, a crisis management model can be applied in higher education institutions as long as it covers four major areas: fiscal, faculty and staff, support functions, and goals and attitudes (Hoverland, McInturff, & Rohm 1986). In other words, all of the five resilience responses and elements are advised to be applied on each area of the higher education institution to be prepared to face any uncertainty or crisis in an effective manner. Moreover, other scholars have noted that crisis could be managed in higher education institutions by reviewing three domains: “what risks are unique to higher education (custodianship of knowledge), what risks are dependent on developments in society (microcosm of society) and what risks faced by an educational establishment” (Helsloot & Jong 2006, p. 142). In other words, higher education institutions need to analyze these three domains of risks to be prepared for the crisis and manage it well.

Other scholars have stressed that the institutions need to consider the “psychological, social-political, and technological-structural” aspects for an integrated crisis management system (Pearson & Clair 1998). In other words, higher education institutions need to have built their resilience and flexibility in these three aspects of their operations to be able to handle a crisis in an effective way. In addition, other scholars have emphasized specifically on the importance of the function and the team of public relations in managing crisis (Coombs 2007). Thereby, to conclude, higher education institutions are advised to build their resilience in various aspects, functions, and teams to be prepared to face any challenges and manage any crisis in an effective manner – such as in the case of COVID19.

2.6 The strategic decision of mergers in higher education

As discussed earlier, according to the literature, many higher education institutions participate in mergers to build, sustain, or improve their competitiveness and profitability. However, participating in a merger is considered one of the most challenging decisions that

an organization can take (Ahi et al. 2017). Not only does it require finding and choosing the right fit for the merger, but it also bears significant managerial, financial and operational consequences (Kitchener 2002; Millett 1976; Woodhouse 2015). Therefore, higher education institution decision-makers need to consider various external and internal factors before going for a merger. In the following sections, an attempt is made to discuss the different factors that higher education institutions analyse when assessing the attractiveness and effectiveness of participating in a certain merger.

The identification of these external and internal factors will be linked to the prominent strategy-analysis models or frameworks as well. For instance, DiMaggio and Powell's (1983) institution-based view and Porter's (1979) industry-based view are the main strategy-views that address the external factors. Whereas, Barney's (1991) resource-based view addresses the internal factors when it comes to strategic decision-making. In addition, the future foresight elements will be discussed as well. The review of these factors will then build the strategy tripod and future foresight conceptual framework of the following chapter of this study. These strategic analysis views are usually adopted in corporate business contexts, but the literature review established the fact that higher education institutions are nowadays operating as business corporations. Therefore, the systematic application of these three views on mergers in the higher education industry is appropriate and justified.

2.6.1 Analysis of external factors

One of the aspects that organizations need to analyse when making strategic decisions is the external environment. Organizations operate in industries and institutional fields. According to Meyer and Rowan (1977), organizations are influenced and changed as their environment change. In other words, the external environment and industry pressures play a significant role in the way organizations operate and change over time. Similarly, higher education institutions are influenced by the external environment and need to take the

external factors into consideration before deciding to participate in a merger. There are two main views that address the external environment in strategy analysis, the institution-based view and the industry-based view (DiMaggio & Powell 1983; Porter 1979). These frameworks offer an analysis tool for organizations to critically assess their strategic decisions.

2.6.1.1 Institution-based view

DiMaggio and Powell (1983) were the two main scholars that established the concept of an institutional-based view in explaining business strategies and firm performance. This view advocates that firms get influenced by their institutional environment. The institutions can be grouped into two main categories: the formal rules and the informal constraints (DiMaggio & Powell 1983). The formal rules include the legislations and regulatory requirements that a firm need to comply with whereas the informal constraints are the norms, values, cultures, traditions and codes of conduct (DiMaggio & Powell 1983). These formal rules and informal norms play an important role in determining the economical and financial success of firms. They are crucial for the survival of firms (DiMaggio & Powell 1983). Similarly, firms in the higher education industry – higher education institutions - are basically ruled and influenced by these institutional factions as well.

The motives and outcomes of higher education institutions' mergers are influenced by external factors that are related to the institution fields in which they operate. An institution field is defined as “a recognized area of expertise or activity” where institutions and professionals compete and interact with each other (DiMaggio & Powell 1991, p. 64). Institutional fields are dominated by institutional logics and isomorphisms that affect the field dynamics and participants (DiMaggio & Powell 1983; Green Jr, Babb & Alpaslan 2008). That is, organizations, including higher education institutions, get influenced by the logics and isomorphism of the institutional field. Institutional logics are “socially constructed,

historical patterns of cultural symbols and material practices, assumptions, values and beliefs by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their daily activity” (Friedland & Alford 1991, p. 243). In other words, institutional logics are like the norms and practices that give organizations and actors legitimacy and guide their behaviours and activities.

Similarly, organizations are somewhat moulded by institutional isomorphism as well. Institutional isomorphism is defined by scholars as the process in which various environmental conditions and forces cause the population units to change and ultimately resemble each other (Hawley 1968). These institutional factors could come from political, societal, or legal sources (Hotho 2009). Thereby, these institutional logics and isomorphisms are basically external pressures that can be the drivers for change in the relevant institutional fields and organizations (DiMaggio & Powell 1983; Scott 1987). One way in which organizations and higher education institutions can change is by adapting to the external pressures of institutional logics and institutional isomorphism. Capitalism and growth are examples of institutional logics and pressures that have caused waves of change in higher education institutions, as was presented in the earlier literature review section.

When the market was moving towards capitalism and competition levels were rising between industry players, institutions were pressured to take strategic decisions to enhance their profitability and performance. One of these decisions was to participate in higher education mergers, to follow the market trend and institutional myth of mergers. Institutions feel compelled to follow the institutional logics, myths and change-trends to gain legitimacy in a field (Meyer & Rowan 1977). Consequently, this results in isomorphic organizations and higher education institutions that share similar structures and dynamics in the same institutional field. For instance, in the early 1990s, mergers in the higher education industry and healthcare industry became a prominent choice to improve efficiency and profitability,

which created the institutional myth of mergers (Kitchener 2002). higher education institutions started following this myth without the critical analysis of their merger choices. The merger of the academic health centres of Stanford University and University of California in San Francisco is a classic example of this. These two higher education institutions, based on an uncritical conformance to the institutional myth of mergers, participated in a merger that resulted in huge losses and that dissolved eventually. The higher education institutions failed to anticipate the financial burden of the technological convergence that was required for the success of the merger, which was one of the main reasons behind their demerger in the end (Kitchener 2002). Therefore, higher education institutions need to be alert when adopting and assessing institutional logics or pressures; they need to critically analyse the validity of any merger to prevent dysfunctional outcomes and potential failures.

Other than that, another wave of institutional pressures that affected higher education institutions' mergers was evident during the purification of the apartheid or the discriminant higher education structures. For example, in the 1990s, the South African government started taking initiatives in changing the institutional logics and dynamics of having racially segregated higher education institutions. This institutional pressure lead to the merger of a total of 37 universities during that period (Ngcamu 2017). These mergers, although went through challenges, eventually were deemed successful. However, scholars have noted that institutional and organizational change has a failure rate of 30% to 80% (Appelbaum et al. 2012; Kotter 1996; Whelan-Berry & Somerville 2010;). The low success rate indicates that institutions, including higher education institutions, need to apply higher levels of scrutiny in their due diligence prior to making any change or merger decision. The institutional logics and factors might be favourable for some players, but not necessarily for all players.

2.6.1.2 Industry-based view

Another external dimension that higher education institutions need to be aware of in their merger-decisions is the industry-specific forces. Porter (1979) has identified five forces that shape strategy: the intensity of industry rivalry, the power of suppliers, the power of consumers, the availability of substitutes and the level of entry barriers. According to Porter (1979), these five main industry forces that influence the competitive advantage and business performance of firms. Porter explains that when there is a high level of rivalry and competition in an industry, it will be more difficult for a company to establish a competitive advantage (1979). That is because the intense competition makes the industry players race to establish high quality standards and develop competitive resources, which makes it harder for the market players to achieve something unique and gain a competitive advantage. Also, when the suppliers are limited in number in comparison to their affiliated businesses, this will give the suppliers an advantage and a negotiating power (Porter 1979). Similarly, when there are several alternatives of a certain product or service in an industry, the consumers gain the power of choosing and moving between the different providers (Porter 1979). This affects the profit generating process and business performance of the competing firms. In addition, multiple substitutes of a certain business make that business lose its competitive advantage in that industry (Porter 1979). If there is someone else that can provide a similar or a substitute to your products or service, this undermines your competitive advantage and returns. Finally, if there are high barriers to enter a certain market, it will be more difficult for businesses to enter that industry and establish a successful presence. Therefore, the lower the industry pressure, the better for firms. This analysis can be applied to our study's higher education industry as well.

In the higher education industry, the rivalry levels and the availability of alternatives are generally the two main relevant concerns that are pushing higher education institutions

towards mergers. As explained in the earlier literature review sections, with the wave of globalization, the intensified competition was one of the major forces behind the increasing rate of mergers (Boling, Mayo & Helms 2017; Hammond 2016). In fact, according to Vosse and Aliyu (2018, p. 1106), “numerous countries including UK, New Zealand, Australia, Norway, Denmark, Finland, China, USA, South Africa and Russia used, and continue to use mergers as a mechanism to address a range of different challenges” to build a sustainable competitive advantage.

Moreover, the process of internationalisation and spread of transnational campuses and offshore branches also contributed to the increase in the number of alternatives and substitutes in the higher education industry; higher education institutions were pressured to improve their offerings to attract and retain international students and staff (Melewar & Akeel 2005; Miller-Idriss & Hanauer 2011; Tawil & Baeumer 2018). This in turn also imposed a challenge for higher education institutions to maintain their market share, power in the industry, and unique competitive advantage. According to Johnes (2014) and Millett (1976), to adapt to the high levels of rivalry, universities would opt for participating in mergers as a way to establish a competitive advantage in the industry. Therefore, higher education institutions’ awareness towards industry factors and forces is vital for their sound strategic decisions and merger effectiveness.

In addition, another strategy analysis tool that is used by industry players is the SWOT analysis, which is the Strengths, Weaknesses, Opportunities, and Threats (Helms & Nixon 2010). According to scholars, this analysis tool “provides the foundation for realization of the desired alignment of organizational variables or issues. By listing favourable and unfavourable internal and external issues in the four quadrants of a SWOT analysis grid, planners can better understand how strengths can be leveraged to realize new opportunities and understand how weaknesses can slowly progress or magnify organizational threats”

(Helms & Nixon 2010, p. 216). Basically, two of the SWOT pillars are related to the external industry – opportunities and threats – and two are related to the internal organization – strengths and weaknesses. higher education institutions analysis of the external opportunities and threats, such as the threat of competitors, and internal strength or capabilities – or the lack of them - could add value to their strategic decisions’ effectiveness (Koo et al. 2011).

Scholars have used the SWOT analysis tool in previous higher education studies. For instance, according to Adepoju and Famade (2010), there are a list of elements that are considered sources of SWOT in higher education institutions. They have grouped these elements into internal and external sources (Adepoju & Famade 2010). The internal sources include: the faculty, the facilities, the students, the budgets, the research programmes, and the various academic or non-academic committees. The external sources include: potential employees and students, families and society, competing higher education institutions, the high schools, the capital funding agencies, and the overall population demographics. Thereby, it is important to keep these sources in mind when analysing the industry-level factors that influence higher education mergers’ effectiveness.

However, it is worth mentioning that some scholars have criticised the SWOT analysis tool. Some scholars have emphasized the need to incorporate another analysis tool, such as Porter’s five forces, into the SWOT analysis to give it more substance (Evans & Wright 2009). Other scholars have argued that both the SWOT analysis tool and Portner’s five forces are not sufficient for strategic decision making. For instance, Mulcaster (2009) have expressed an explicit dissatisfaction with the isolated use of these two analysis tools. In fact, some studies have actually identified further dimensions to add on the SWOT and Porter’s tools. The TOPHAILORS is an example of an extended version of the forces that impact business strategies (Mulcaster 2009). The “TOPHAILORS” forces are “Time, Opposing forces, Politics and perception, Holistic effects, Adding value, Incentives, Learning,

Opportunity cost, Risk, and Style” (Mulcaster 2009, p. 2). Therefore, based on these arguments, it is viewed as a reasonable calling that SWOT or Porter’s five forces are not to be used in isolation in analysing or making strategic decisions. Rather, other dimensions should be integrated into the analysis schema.

In terms of the external industry analysis, building on the industry-based view, one of the main aspects that higher education institutions consider is industry demands. For instance, scholars have noted that as the industry players – whether in the form of governmental entities or usual organizations – started demanding higher levels of skilful personnel, the higher education institutions were pushed towards advancing their educational standards and competitive advantages (Adepoju & Famade 2010). Higher education institutions started joining forces to compensate for any weaknesses they might have that would hold them from meeting the external industry demands (Parrott 2016). In fact, studies have shown that collaborations and partnerships between academic institutions yield strategic benefits. For instance, Harris (2018) advocated that higher education institutions’ libraries could improve their strength-qualities and overcome their weaknesses by establishing collaborations and partnerships with external higher education participants. Similarly, this could be applied in the case of general higher education institutions mergers as well. Current and futuristic insight into their own qualities is vital for higher education institutions.

2.6.2 Analysis of internal factors

Other than that, higher education institutions need to be aware of the relevant internal factors that may influence their strategic decisions. Understanding an organization’s own resources is paramount to its successful strategic direction and decision-making (Zarb 2015). Anything that can be considered a source of strength or weakness in a firm is called a resource (Wernerfelt 1984). These resources can be the company’s employees, the technologies, the business knowledge, the processes or procedures, the equipment or

machinery, the brand value or even the financial capital (Wernerfelt 1984). According to scholars, higher education institutions are ought to align between external demands or institutional pressures and their internal goals and organizational resources (Brennan 2008). Many of the case studies that are done on higher education institutions and on mergers in higher education institutions conclude with a list of best practices that influence the success or failure of these higher education institutions. These lists include items such as internal structures, organizational culture, management designs, and leadership styles (Chipunza & Gwarinda 2010; Kitchener 2002; Locke 2007; Maduro, Fernandes & Alves 2018; Manona 2015; Ngcamu 2017). Therefore, when deciding on joining forces with another organization, a higher education institution should properly analyse the internal organizational factors that might impact the convergence process, the performance effectiveness or the ultimate success of the merger.

2.6.2.1 Resource-based view

The resource-based view is one of the most prominent strategy perspectives that aid in the assessment and analysis of organizational resources (Barney 1991). It was initially developed by Wernerfelt (1984) then Barney (1991) further built on it. In this view, Barney explains the characteristics of internal resources that give a firm sustainable competitive advantage (1991). He establishes a framework that identifies four main resources' attributes that generate competitive advantage. These attributes are: value, rareness, imperfect imitability and substitutability (Barney 1991). Resources are considered valuable when they contribute to the firms' ability to implement strategies and achieve their organizational goals in an efficient and effective manner (Barney 1991). Similarly, higher education institutions need to strategically assess their own resources and their potential merger's resources to make a sound decision.

The rareness of resources is crucial for a firm's competitive advantage. If many companies have the same valuable resources, this makes each company lose its own competitive advantage (Barney 1991). Therefore, a resource needs to be rare in addition to being valuable to be considered a source of competitive advantage. Other than that, resources need to be imperfectly imitable to have a sustainable competitive advantage (Barney 1991). Being valuable and rare can give a competitive advantage, but this advantage will only last if these resources were not imitable. According to Dierickx and Cool (1989), resources can be imperfectly imitable if they are dependent on a unique condition, if their competitive advantage is ambiguous and if they are socially complex. Having a unique, ambiguous and complex nature makes it difficult for others to copy these resources or substitute them with others, which in turn sustains the competitive advantage of the firm that possesses these resources. The resource-based view has gained a lot of popularity among the scholars over the years. Some scholars have even regarded it as an "innovation" that is easy and simple to comprehend and implement (Peng 2001). This resource-based view gives critical insight into firms' – or in this case higher education institutions' - internal abilities and competitive advantage.

Higher education institutions can go for mergers that provide them with some sort of a complimentary resource. In fact, complimentary mergers have been recommended by scholars for the added value and competitive advantage that they produce (Boling, Mayo & Helms 2017; Locke 2007;). Scholars have even noted that a complimentary merger could be considered an institution's primary strategy for gaining competitive advantage in the higher education industry (Boling, Mayo & Helms 2017). Other scholars emphasize on the importance of synergies when it comes to merging the resources of two or more higher education institutions (Bruner 2002). That is, in mergers, higher education institutions need to effectively consolidate their administrative functions, target markets, academic programmes

and operations by eliminating any overlapping resources. However, this consolidation and convergence of resources is not a simple process and can over-burden a merger with challenges and financial strains.

For instance, in the Stanford University and University of California merger, the two higher education institutions failed to anticipate the cost of the resources' integration process, which eventually resulted in the failure of the merger (Kitchener 2002). They budgeted the cost of the computer systems integration to be 25 million USD when it actually costed 126 million USD (Kitchener 2002). It is worth mentioning that electronic database integration and the technological compatibility of higher education institutions has played a crucial role in the success of mergers. Another famous merger which was called off because of resources-related obstacles was the Salem State University and the Montserrat College of Art merger (Woodhouse 2015). These two higher education institutions were academically compatible, but not practically viable when it came to their resources. Thereby, finding a good academic fit is not enough for finalizing a higher education merger decision, other internal and external factors need to be taken into consideration as well.

Another internal organizational element that has proved to influence higher education mergers is the organizational culture. According to scholars, the compatibility of the internal organizational culture of the two or more merging higher education institutions plays a vital role in the success and overall performance levels (Cartwright & Cooper 2014; Manona 2015). Organizational culture is referred to “a system of shared meaning held by members that distinguishes the organization from other organisations” (Robbins 2005, p. 485). In addition, organizational culture includes the “day-to-day practices, values, assumptions and expectations” (Pepper & Larson 2006, p. 52). Cultural differences would not necessarily cause higher education institutions mergers to completely fail, but they indeed create some challenges and internal issues for the newly formed organization. This was evident in the case

of the merger of Walter Sisulu University, in South Africa, which was the result of merging three institutions (Manona 2015). The study highlighted some inequalities, dissatisfactions, and poor merger outcomes that were due to internal factors and management issues.

Therefore, for a healthy and effective merger, evaluating the internal-compatibility of the merging higher education institutions is quite important.

2.6.2.2. Competencies and capabilities

Over the years, scholars have extended the definition of resources and extended the resource-based view to highlight the concepts of capabilities and competencies. Different scholars have defined organizational capabilities and competencies in different ways (Casselman & Samson 2007; Zarb 2015). For instance, according to Grant (1996a), the essence of an organization's capabilities is in its ability to create and sustain competitive advantage through the integration of knowledge. To explain, the ability of an organization to create value and sustain its competitive advantage is considered a capability. Other scholars have defined capabilities as the "processes and routines" in an organization (Walsh & Linton 2001, p. 166). Based on this definition, the organization's systems and controls are considered a capability as well. Some scholars emphasized that an organization's true capability is in its adaptability (Matson, DeLoach, & Bhatnagar, 2009). This means adapting and having organizational resilience is a capability. In fact, according to Peng and Lin (2017), organizations that lack the capability to adapt to the external environment eventually fail.

Furthermore, scholars, such as Teece, Pisano, and Shuen (1997), have highlighted that organizations' capabilities are considered "dynamic capabilities" when these capabilities build their ability to seize opportunities in fast-changing and dynamic industries or environments. That is, the achievement of a new form of competitive advantage is considered a dynamic capability. It is worth mentioning that some scholars have also categorized the organizational capabilities depending on the organizational departments and/or functional

levels. For example, Grant (1996a), grouped the organizational capabilities into: cross-functional capabilities, board-functional capabilities, activity-related capabilities, and single-task capabilities. A detailed demonstration of this grouping is presented in Appendix 5.

One of the most important capabilities that are related to mergers is the knowledge creation capability. According to Noor et al. (2014, p. 1192), “knowledge is recognized as a strategic source for organizations to strengthen innovation capabilities in today’s dynamic environment with a high-level uncertainty”. As established in the earlier literature review, higher education institutions are facing continuous challenges that need dynamic solutions in order to build and sustain their competitive advantages. Knowledge, and the creation of knowledge, is a key resource to achieve this competitive advantage. That is, the post-merger higher education institution needs to ensure to have the sufficient capability to create knowledge as one unified institute.

The above notion has been supported by various scholars as well. For instance, Hoq and Akter (2012) emphasized the importance of creating strategic management systems in higher education institutions that foster and encourage the knowledge creation capability. That is, the higher education institution’s management system should be designed in a way that enable, empower, and reinforce the institution’s knowledge creation capability. In other words, the knowledge creation capability should not be something on the side-borders but rather a core function and system in the higher education institution. In fact, this capability is particularly important in higher education institutions as one of their innate responsibilities is to create and share knowledge itself. However, this capability is also very important and vital for the activity of mergers in general, not necessarily in higher education only.

For example, business ventures and other non-higher education institutions have also acknowledged the importance of knowledge creation. In fact, knowledge creation is considered even more important than the knowledge resource itself (Lee & Choi 2014). That

is, according to Grant (1996b), knowledge resides within individuals and it's an organization's responsibility to foster the application and sharing of this knowledge. In other words, the knowledge resource resides in the people; however, it is only valuable to the institution when it is developed and fostered using the knowledge creation capability.

The above notion is also related to the theory of firm and the knowledge management theories (Machlup 1967; Patel & Harty 1998); however, this study's focus is on the knowledge creation capability in particular. To explain, in a nutshell, the knowledge-based theory of firm advocates that knowledge is the most vital resource in organizations. Whereas, the knowledge management theory refers to the "concept under which information is turned into actionable knowledge and made available effortlessly in a usable form to the people who can apply it (Dalkir 2011, p. 6). This study focuses on knowledge creation capability, which is "the extent to which top management teams and knowledge workers have access to one another and other stakeholders, are capable of combining information and knowledge into new knowledge, and perceive value from the exchange and combination process (Smith, Collins & Clark 2005, p. 347). Based on these definitions, and the aforementioned evidence from the reviewed literature, the researcher argues that the knowledge creation capability is the most relevant to mergers in higher education – rather than the other concepts or theories.

On the other hand, other than the capabilities, competencies are considered the skill-related abilities of an organization. For instance, according to Walsh and Linton (2001, p. 167), competencies are the "specific technologies and production related skills". Other scholars, such as Mitchelmore and Rowley (2010), linked competencies to behavioural standards and codes of conducts as well. Some scholars have even opted to a more generic definition that includes both skills and behaviours (Bucker and Poutsma, 2010). On the other hand, some scholars have referred to 'knowledge' as a competency too (Walsh & Linton 2001). In the higher education context, "knowledge-based competencies are those where the

value gained by students is directly related to the skills and knowledge of the teachers employed by the organization in question (e.g. curriculum design; teacher development). In fact, the quality of teachers may be the most important input factor in education” (Cinar, Dongel, & Sogutli 2009). Thereby, we can see how competencies and capabilities play an important role in building the higher education institutions’ competitive resources.

2.6.3 Future foresight

The multifaceted nature of higher education institutions and the various trends that the higher education industry went through over the past decades necessitated the need of being well-prepared for any future advancements or challenges. Thereby, this conclusion highlighted the importance of having a robust future foresight in higher education institutions to ensure their sustainability and success. future foresight is relatively a young concept in the theoretical and practical fields, which is why there are limited studies covering future foresight in the scholarly field. It is worth noting that future foresight in itself has been a contested concept in the scholarly field. Some scholars have considered it a process, others have considered it a human attribute, and others have considered it a competency (Amsteus 2008). On the other hand, scholars such as Horton (1999), have clearly defined future foresight as a process that has three phases.

In fact, according to Amsteus (2008, p. 56), “the foresight process follows three phases, generally in chronological order. Phase one comprises the collection, collation and summarization of available information and results in the production of foresight knowledge. Phase two comprises the translation and interpretation of this knowledge to produce an understanding of its implications for the future. Phase three comprises the assimilation and evaluation of this understanding to produce a commitment to action in a particular organization. Each phase creates a greater value than the previous phase, however this value is only realized at the very end of the process and often with a significant time lag. Each

phase is also more difficult and time consuming, more abstract, and less easy to measure than the preceding phase. Horton concludes that in a successful foresight process, these three phases result in taking decisions and actions that are different to those which would have been carried out in the absence of the process". In other words, by the time the future foresight process gets completed, the time lag could cause the realities to have changed. That is, the outcome of the future foresight might not be as effective as expected at that time. Thereby, the time lag in the future foresight process is a very important note to take into consideration.

Other than that, the specific concept of 'corporate foresight' has been studied in the scholarly field widely, which is very similar to future foresight. According to Rohrbeck and Kum (2018), corporate foresight enables an organization to implement practices that lets it foresee the future trends ahead of its competitors and prepare for it to outperform others. Earlier scholars, such as Berger (1964); Hamel and Prahalad (1994); Hines and Gold (2015), have also noted the same. Thereby, the researcher argues that corporate foresight (Appendix 6) is one element of the wider future foresight competence.

The future foresight competence would not only include foreseeing trends related to the corporation itself, but beyond the intended institutional field and/or the particular industry – especially since the researcher is linking it to the three legs of the strategy tripod and the three perspectives. To the researcher's knowledge, higher education mergers have not been examined from a future foresight perspective. However, the researcher got inspired by the works of other scholars in this area in getting insights regarding the factors that one can focus on (Appendix 6) under the overarching concept of foresight. In addition, Hines et al. (2017) has noted six future foresight competencies that institutions could build to enhance their foresight talent and capacity. These six future foresight competencies are: framing, scanning, futuring, visioning, designing, adapting (Hines et al. 2017, p. 131).

To explain, as per Hines et al. (2017), these six future foresight competencies are defined, constructed, and developed in detailed model and framework that lists the steps taken under each future foresight competency as presented below:

“1. Framing: Scoping the project, defining the focal issue and current conditions.

Scoping:

- Defining and bounding the topic, specifying the geography and time frame.

Mapping:

- Locating the topic in its context, system, assumptions, and worldview; including key drivers of change; this may include a visual map as well as categories for initial research.

Retrospecting

- Understanding the topic or systems history, particularly back to the last major discontinuity.

Assessing

- Diagnosing audience/client knowledge identifying stakeholders, modes of learning, and receptivity; preparing engagement processes and presentations appropriately.

2. Scanning: Exploring signals of change as indicators of the futures.

Exploring

- Finding signals of change that affect the topic or system, a.k.a. “scanning hits.”

Collecting

- Gathering the scanning hits into a structured inventory.

Analyzing

- Evaluating the scanning hits using agreed-upon criteria.

3. Futuring: Identifying a baseline and alternative futures.

Letting Go

- Suspending preconceived notions of the future to challenge assumptions to see the future with fresh eyes.

Converging

- Forecasting a baseline future or “most likely” scenario from current trends, issues, and plans, along with its assumptions and associated risk.

Diverging

- Generating alternative futures or scenarios based on wildcards, ideas, systematically derived alternative projections and images built around key drivers and uncertainties, challenges, opportunities, and aspirations.

4. Visioning: Developing and committing to a preferred future.

Sensemaking

- Considering the implications suggested by past, present, and alternative futures.

Committing

- Making a choice of one’s strategic direction/preferred future and committing to act on it.

Goal-Setting

- Setting specific, tangible goals to create a preferred future.
- Facilitating processes to help a group agree on shared goals to create a preferred future.
- Developing stretch targets, or audacious goals, to achieve the vision.

5. Designing: Developing prototypes, offerings, or artifacts to achieve the vision and goals.

Facilitating

- Guiding interpersonal interactions to achieve desired foresight results.

Prototyping

- Creating activities or artifacts to explore baseline and alternative futures and visions.

6. Adapting: Enabling organizations to generate options to alternative futures.

Strategizing

- Reflecting on paths one could take over time, weighing their pros and cons.
- Bridging goals and the present state with strategies, options, tactics, and actions.
- Communicating alternative futures, vision, goals, and strategic options to capture stakeholder attention and influence their actions.
- Monitoring indicators or precursors to indicate how uncertainty is resolving to move toward specific scenarios.
- Refreshing the process every few years or as needed.”

Furthermore, Hines et al. (2017), extended these six future foresight competencies into a model that links the above mentioned six future foresight competencies to other five main types of competencies in an institution. These five competencies are: sector competencies, academic competencies, personal competencies, workplace competencies, occupational and specialization competencies (Hines et al. 2017). To explain, in short, the sector competencies are related to having the sufficient consulting work that gives a clear view about the sector. The academic competencies are related to the specialized knowledge and intellectual skills. The personal competencies are related to the interpersonal skills, communication, adaptability, flexibility, and willingness to learn. The workplace competencies are related to planning, creative thinking, and problem solving, the occupational and specialization skills are related to research, trend analysis, and horizon scanning.

Similar to Hines et al. (2017), the researcher of this study argues that the future foresight competency in the higher education industry in specific, and when applied on the strategic decision of mergers in particular, could be linked to its ultimate effectiveness. In addition, Hines et al. (2017), linked the future foresight competencies to five other types of competencies in a singular model. Whereas, the research in this study is linking the future foresight competency to three other factors – as part of the strategy tripod – that are argued to

have a significant influence on the higher education institutions merger effectiveness. In fact, the future foresight competency is argued to be a mediator as well. In the next chapter, further details will be presented for these hypotheses and arguments.

Moreover, the Ministry of Cabinet Affairs and the Future (2017) in the United Arab Emirates has also highlighted the significant importance of future foresight as being an independent factor of study for strategy building and added it to its annual report. Therefore, inspired by these works, and due to future foresight's prevailing significance amongst decision makers and practitioners, this study proposed adding it as a fourth, independent, leg to the strategy tripod framework – for the holistic explanation of the factors influencing the effectiveness of higher education mergers.

2.7 Conclusion

In conclusion, the literature review highlighted how the higher education industry went through a few waves of change that influenced the way higher education institutions operate and function. Studying at a higher education institution was initially an exclusive opportunity available to elites (Guravaiah 2017). However, with the political reforms and government interventions, higher education become a system of mass education. In addition, globalization, internationalisation, sustainability development, neoliberalism, capitalism and new public management are notions that significantly influenced the overall higher education industry as well. With the increasing competition levels and the push towards growth and profitability, many higher education institutions faced financial issues and other challenges. One way of adapting to these challenges was to participate in higher education mergers.

Moreover, with COVID19 and the current pandemic era, the higher education industry got affected yet again. Higher education institutions were challenged to shift their curriculum and offerings to online education and distant learnings. The literature review presented some of the scholarly studies that talked about this new phase in the higher education industry and

highlighted some of the best practices that higher education institutions from around the world are following. In addition, the researcher touched on the topics of crisis management and change management to bring the readers' attention to the importance of these concepts at times of a pandemic such as this COVID19 one. Various models of change management and crisis management steps were discussed and presented in this literature review as well.

Nevertheless, coming back to the main topic of mergers, participating in a merger is considered one of the most challenging decisions that an organization can take (Ahi et al. 2017). Mergers are expected to improve efficiency, economies of scale, economies of scope, and cost management of the universities participating in it (Johnes 2014; Manona 2015). Many of the case studies that are done on higher education institutions and on mergers in higher education institutions conclude with a list of best practices that influence the success or failure of these higher education institutions. These lists include items such as internal structures, organizational culture, management designs, and leadership styles (Chipunza & Gwarinda 2010; Locke 2007; Kitchener 2002; Maduro, Fernandes & Alves 2018; Manona 2015; Ngcamu 2017).

There was an evident rise in the volume of higher education mergers in the past years (Cavanagh 2018). Where some mergers were successful, many others failed (Christensen et al. 2011). Thereby, it is a phenomenon that is worth studying since it involves various factors. There is a lack of a holistic analysis of the integrated-factors that influence the effectiveness of mergers in the higher education industry (Johnes 2014; Jung 2018;; Liu, Patton & Kenney 2018). Strategic decisions, such as mergers, need to be guided by a critical assessment of the relevant environmental and organizational factors.

higher education institutions can adopt an integrated three-perspective strategy framework that includes the institutional-based view, the industry-based view, and the resource-based view in anticipating the effectiveness of a potential merger (Barney 1991;

DiMaggio & Powell 1983; Ju, Zhao & Wang 2014; Porter 1979; Su, Peng & Xie 2015). As noted earlier, these views, when combined together, are called the strategy tripod theoretical perspective (Yamakawa, Peng & Deeds 2008). Additionally, from the reviewed literature, we argue that having a proactive response to the global trends in higher education is not as effective as having a future foresight approach while making strategic decisions. Corporate foresight enables an organization to implement practices that lets it foresee the future trends ahead of its competitors and prepare for it to outperform others (Rohrbeck & Kum 2018). In other words, higher education institutions need to develop and utilise their future foresight to secure a competitive place in the market. Hence, this study proposes that future foresight is as important as the strategy tripod analysis for the ultimate effectiveness of mergers in the higher education industry. Therefore, the strategy tripod and future foresight are going to be the basis of this study's conceptual framework in the next chapter.

3.0 Chapter Three: Conceptual framework

The higher education industry is an amalgamation of various elements that interplay together to form this complex, multifaceted and multidimensional context. According to Melewar and Akel (2005), the corporate identity of higher education depends on several elements, and it is not possible to isolate these elements or underestimate the importance of any single element. For instance, the scholarly literature showed that higher education is influenced by the government, policy makers, institutional systems, management orientations, research quality, strategic decisions, global environment, customer base and workforce. Based on the literature review, previous studies have investigated a few of these different factors in isolated manners, but there is a lack of research that looks at a number of factors together.

In other words, there is a shortage of studies and frameworks that aid the management of the complex higher education mergers in a consolidated way (Sułkowski, Fijałkowska, & Dzimińska 2019). Thereby, it is vital to look at the key factors that influence higher education institutions from an integrated and holistic perspective. This study attempts to fill this gap by applying one key factor from each strategy tripod perspective in a holistic manner to examine the influence on higher education merger effectiveness, with the mediating effect of future foresight. To the researcher's knowledge, the strategy tripod and future foresight theoretical lens have not been implemented on mergers in higher education yet. Hence, this study employs the strategy tripod and future foresight perspectives in explaining the predictable relationship between the key factors of the strategy tripod – government support, competitive intensity, and knowledge creation capability - and the higher education merger effectiveness. In other words, based on the literature and researcher's arguments, this chapter identifies these three key factors from the strategy tripod and the future foresight competence as predictors of merger effectiveness – presenting this in a conceptual framework for the study.

The related hypotheses and arguments, along with the mediating supports for future foresight are presented in this chapter as well.

3.1 Proposed framework

Following a deductive approach, the following proposed framework will be empirically examined through a quantitative study, covering higher education mergers from around Europe and USA. As per the limitation of time, finances, and access, a convenient sampling method will be adopted. Based on the higher education trends that were discussed in the previous chapter, it was evident that the higher education industry is becoming standardized on a global scale. Therefore, the researcher argues that the findings of the study are going to be generalizable on international higher education mergers in all regions.

Moreover, scholars have emphasized that there are “hundreds of case studies” that look at singular cases; however, only a few empirically integrated “studies have been gathered that draw a complex picture of the mergers’ practices” in the higher education industry (Sułkowski, Fijałkowska, & Dzimińska 2019, p. 2). That is, studies have shown how individual factors influence higher education mergers only. However, there is a lack of studies that looks at the key variables together and empirically tests them (Su, Peng & Xie 2016). Thereby, having one study that includes various perspectives will be an added value to the scholarly field and knowledge (Lu, Liu & Wang 2010; Peng et al. 2009; Yamakawa, Peng & Deeds 2008). This study represents one of the first attempts, if not the first, to empirically examine higher education mergers through the theoretical lens of the strategy tripod and by testing the interactions between the key factors from three/four perspectives.

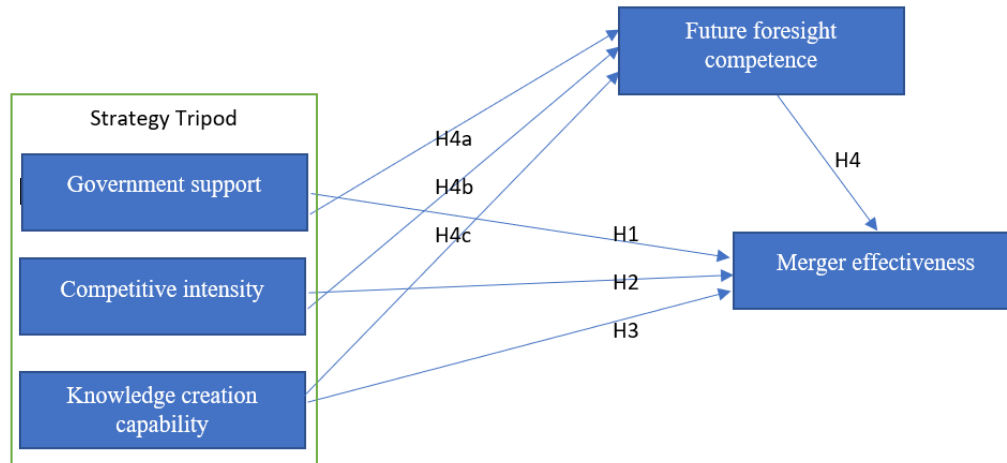


Figure 2: Conceptual framework and hypotheses

Therefore, as shown in the above framework, this study's novel contribution lies in its use of a holistic approach that includes future foresight as a significant factor in predicting higher education merger effectiveness, with three other key factors from the theoretical lens of strategy tripod. Seven main hypotheses are derived from these key factors and the related literature. Out of these seven hypotheses, three hypotheses are basically mapped from the three legs of the strategy tripod, whereas the other four hypotheses are related to the future foresight competence, including its mediating influence. The main argument of the research is that if the four future foresight hypotheses are supported, then the weight of future foresight competence is highly significant in the theoretical lens of strategy tripod and gives it the value to be an independent fourth leg in this strategy framework – making it a Strategy Quadpod. The four legs of strategy, forming the “Strategy Quadpod”, will then be: the institutional-based view, the industry-based view, the resource-based view, and the future foresight view.

3.2 Research hypotheses

Based on the proposed above conceptual framework, seven hypotheses were developed for this study as follows.

1. Government support significantly influences merger effectiveness.
2. Competitive intensity significantly influences merger effectiveness.
3. Knowledge creation capability significantly influences merger effectiveness.
4. Future foresight competence significantly influences merger effectiveness.
 - a. Future foresight competence positively mediates the relationship between government support and merger effectiveness.
 - b. Future foresight competence positively mediates the relationship between competitive intensity and merger effectiveness.
 - c. Future foresight competence positively mediates the relationship between knowledge creation capability and merger effectiveness.

In the following paragraphs, each hypothesis will be supported by arguments and evidence from both the general field of business and from the specific higher education field and industry. These arguments and hypotheses will then be empirically tested accordingly. By adopting a post-positivism, objectivist approach, a quantitative methodology will be utilised to gather and analyse the data. Details of the method and research design will follow in the next chapter. Towards the end of the study, the proposal to add the future foresight as the fourth leg to the strategy tripod will be further discussed and developed based on the results of the study. Also, by synthesizing the study's findings with the comprehensively reviewed literature, the researcher will provide a novel framework for mergers in the higher education industry, underpinned by the four legs of the theoretical background (the strategy tripod perspective and the future foresight).

3.2.1 First hypothesis

H1: Government support significantly influences merger effectiveness.

As discussed in the earlier literature review chapter, key elements that influence organizations operating in a particular institutional field are the legal and governmental

elements. In other words, the legal distance and the governmental support towards the participants of a merger can play a significant role in determining the merger's effectiveness. Merger decisions can be challenged by legal or regularity requirements, especially if the participating institutions operate in multiple or distinct jurisdictions. This can create hurdles for the merger and increase the complexity of its process and performance, which will have an adverse effect on its success or future effectiveness.

According to Cui, Jiang and Stening (2011), regulatory or governmental pressures have a significant impact on the strategic decisions of businesses. Others scholars have also emphasized the importance of governmental support in achieving the strategic plans of higher education institutions (Daquila & Haung 2013). Thereby, government and legal support is important for the effectiveness of mergers. For instance, if there are unfamiliar and ineffective laws in an institutional field, this can create difficulties for the firms to enforce contracts, gain licenses or benefit from strategic activities such as mergers (Su, Peng & Xie 2015). This in turn can hinder the success rates of mergers. Therefore, firms, or higher education institutions, need to reduce any legal distance by negotiating their stances with the authorities to be able to operate effectively and gain governmental support (Kostova & Dacin 2008). Therefore, the heavier and the more distant the legal or governmental requirements between the firms involved in a merger, the harder it can be for them to achieve business effectiveness. higher education institutions should merge with institutions that are not 'distant' but rather 'similar' to them. In other words, higher education mergers are more likely to succeed when they have governmental support along their sides.

The cultural and economical distance between the merger participants is also important; however, they are less important in these particular cases of higher education mergers of this study. That is because this study is looking at mergers that are more or less within the same cultural and economical base. They are not cross-border mergers. Therefore,

the merged higher education institutions usually come from a similar cultural and economical background that have quite similar norms, values, behaviours, labour unions, languages and religions. Thereby, it will naturally be less challenging for them to merge or unite as one entity based on these factors.

Nonetheless, these factors need to be carefully studied before deciding on any strategic move because they can cause issues that will negatively impact the performance and success of the business. However, for the purposes of this study, government support is more relevant than cultural or economical distance since the mergers are within the same borders. In fact, scholars have noted that the impact of cultural and economical differences is less when it comes to higher education mergers within the same country (Sułkowski, Seliga & Woźniak 2019). Therefore, the one factor chosen for the institution-based view is government support.

Moreover, an example of a higher education merger that was influenced by governmental support and institutional logics was the Durban Institute of Technology merger in South Africa (Ngcamu 2017). In this case, the institutional factors were highly challenging; however, they eventually worked in the favour of the merger. To explain, the government was pushing for an institutional reform to eliminate the apartheid system in South Africa at that time. This made them force higher education institutions that cater to separate ethnicities to merge together (Hall, Symes & Thierry 2004). Although the merger went through initial challenges, but the institutional-based support and governmental policies of anti-discriminations empowered the merger and strengthened its long-term effectiveness. Therefore, unlike the first case mentioned above, this is an example of how institutional factors – represented in governmental support - played a favourable role in the eventual success of the higher education merger.

3.2.2 Second hypothesis

H2: Competitive intensity significantly influences merger effectiveness.

Based on the industry-related factors, this study argues that having certain industry conditions can influence the continuity and effectiveness of a merger in the higher education. In other words, being attentive to the industry dynamics is vital to making sound strategic decisions such as participating in a merger. For instance, considering the market competition and the global standards of higher education, the government in India ordered a merge of multiple technology institutions into one higher education institution, called Anne University (The Hindu 2012; The Times of India 2012). While announcing this huge merger, officials indicated that this will equip the newly formed higher education institution to elevate its quality of research and studies to a global competitive standard. This links well to the SWOT analysis that decision-makers employ in assessing the industry conditions before going for a merger or other strategic changes (Boling, Mayo & Helms 2017; Hammond 2016; Harris 2018; Helms & Nixon 2010; Porter 1979). In fact, scholars have noted that environmental scans, digitization, and sustainable preservation are critical elements for a SWOT analysis of higher education institutions in the higher education industry (Harris 2018). Therefore, higher education mergers that are well aligned with the industrial rivalry levels and demands can prove to be effective.

Another example of a strategic decision in higher education that was well aligned with the industry conditions is the case of Cranfield School of Management (Exter, Grayson & Maher 2013). As a response to the globalized higher education industry, the business world started realising that MBA graduates not only need technical business skills, but also need to have skills to manage the change environment of business sustainably. The purpose of the business schools was being questioned and thus a reform in both the organizational field and the curriculum of business schools was initiated. higher education institution started

competing with each other to follow this trend and strengthen their position in the market. Therefore, universities, such as the Cranfield School of Management, started embedding sustainability and corporate responsibility in their institutes. This strategic move played a role in the overall effectiveness and competitiveness of this higher education institution among its rivals in the higher education industry (Exter, Grayson & Maher 2013). This higher education institution went through a strategic change, but not specifically a merger. However, we can derive from the same that decisions that are fit with the industry dynamics prove to be successful, effective, and sustainable.

There are other studies that are directly related to mergers in higher education institution that highlight a number of industry factors that influence the decision and effectiveness of higher education institutions' mergers. For instance, Leslie, Abu-Rahma and Jaleel (2018) noted that higher education institutions can venture on a merger for competitive reasons such as financial stability, attraction of new students, expansion into new specialisations, and the recruitment of a wider faculty. To explain, industry factors could be higher education institutions' struggling against its competitors to attract international students due to political, economic, and social factors. It could also mean not developing or offering new programmes that satisfy market demand, such as artificial intelligence and blockchain. Also, competitive intensity in the industry can push higher education institutions to the need to merge with more financially strong prestigious universities. Therefore, the rivalry levels and competitive intensity is a key industry factor that influences the effectiveness of higher education institution mergers.

3.2.3 Third hypothesis

H3: Knowledge creation capability significantly influences merger effectiveness.

The internal resources are as important as the external conditions when it comes to making strategic decisions. higher education institutions need to consider the level of

compatibility of their resources before deciding to participate in any merger. For instance, scholars have listed human resources, image and status levels, combined collection of knowledge, space and location services, information technology structures, and capacity building potentials are some of the key factors that higher education institutions need to assess for mergers and acquisitions (Harris 2018). Different levels of resource-compatibilities need to be evaluated before going for a higher education merger. A very famous merger that was stopped at the very last stage due to incompatibilities was between Salem State University and the Montserrat College of Art (Woodhouse 2015). Although both institutions were academically compatible, the merger between these two higher education institutions was called off after extensive assessment and critical analysis due to their financial incompatibility. The merger was expected to result in unfavourable financial expectations which undermined its anticipated effectiveness and made the decision-makers withdraw from the merger (Woodhouse 2015). Therefore, resource compatibility is a key factor for higher education mergers.

Another example for the importance of resources compatibility in higher education mergers is the classic example of the Academic Health Centers merger in the United States (Kitchener 2002). Experts and scholars highlighted that one of the major reasons behind the extremely costly demerger of these higher education institutions was the technological incompatibility. The decision-makers failed to acknowledge the information technology and database compatibility between both institutions, which lead to incurring huge losses (Kitchener 2002). To explain, the leaders did not anticipate or assess the costs that would be incurred to converge the information technology systems of the two institutions into one unified system, and eventually that resulted in the demerger of the two higher education institutions. The technological convergence and the resources compatibility influenced the effectiveness of the higher education merger. Therefore, it is clear that it is not enough that

two or more higher education institutions join forces, it is crucial that their resources are compatible and create value. It is important that they can create value after the merger takes place. In this noted example it was the technological value creation; however, one of the most important types of value creation is the knowledge creation capability of institutions too.

To explain, and as discussed earlier, the resources compatibility is vital for the success of mergers. However, compatibility itself will not ensure the creation of a sustainable value. In other words, the effectiveness and long-term success of the merger will be proven better with a sustainable capability to create value and/or knowledge. According to Wang, Su and Yang (2011, p. 363), knowledge creation capability is “an organization's ability to exchange and combine knowledge to create new knowledge”. This ability plays an important role in building the competitive advantage of an organization, which is the newly merged higher education institution in this case. Thereby, since one of the main drivers to participate in a merger is to have a strong competitive advantage, the knowledge creation capability is vital to the effectiveness of the intended merger. In other words, only having others resources will not add value unless both higher education institutions can work together to create knowledge using those resources.

Furthermore, according to Chung et al. (2014, p. 37), “firm performance is not only determined by tangible assets, but also dependent on the organization’s capabilities to create and utilize knowledge”. In other words, the tangible assets are important; however, the knowledge creation capability is as important – if not more important. If the institutions have assets but they do not know how to create value out of them, then they are of virtually no use. Other scholars, such as Lee and Choi (2003), have also noted that knowledge creation capability has a positive impact on organizational performance. In other words, the better the knowledge creation capability of the merged higher education institution, the better its performance and effectiveness.

Furthermore, Davenport and Prusak (2000) have also reported that turning an organization's focus towards developing their knowledge creation capability led to an improvement in the organization's overall productivity levels as well. Thereby, based on this, the researcher makes the argument that there could be a direct relationship between the merged higher education institution's effectiveness and its knowledge creation capability as well. All of the aforementioned arguments indicate that knowledge creation capability influences the effectiveness of an organization, which is represented in the merged higher education institutions in this case.

3.2.4 Fourth hypothesis

H4: Future foresight competence significantly influences merger effectiveness.

In retrospect, collaborations and mergers have helped higher education institutions in enhancing their performance (Rowley 1997). Moreover, higher education institutions post-merger have shown an improvement in their efficiency levels (Papadimitriou & Johnes 2018). However, often this improvement does not last for the long term. That is, merged higher education institutions eventually demerge and separate after a few years. An example of a failed merger in higher education is the UCSF-Stanford case, where the uncritical adoption of a merger led to inefficiencies that eventually resulted in the demerger of the higher education institutions (Kitchener 2002). As mentioned earlier, this merger did not anticipate the future costs of the technological convergence, and that led to the demerger later on. It is evident that there was a weakness in foreseeing some future dynamics and elements which eventually played a role in the strategic deterioration of the merger. Therefore, the higher education institution's future foresight competency is an important factor in building a robust plan and strategy ahead of any merger decision.

Moreover, as explained in the literature review, future foresight is the ability of leaders and governments to anticipate and prepare for the future uncertainties and trends. The

Future Outlook report of the Ministry of Cabinet Affairs and the Future (2017) highlighted a number of factors that are recommended to be taken into consideration for strategic future foresight. Two of these factors were significantly evident in a couple of higher education merger cases. The first factor is the force of changing demographics. According to the future foresight report, decision-makers need to acknowledge the role and shifts of future demographics in their strategic plans (Ministry of Cabinet Affairs and the Future 2017). This was evident in the South African case of higher education mergers. The government acknowledged the current population demographics – that was based on ethnic segregations – and acted based on the anticipated new demographical landscape (De Beer 2017; Ngcamu 2017). Around 40 higher education institutions merged during that time in South Africa, successfully moving towards the reformed and harmonious population demographic (Ngcamu 2017). Thus, having that future foresight into the demographical factors played a role in the higher education merger effectiveness.

The second future foresight factor that seems to have influenced higher education mergers is the technology and computing power. The Ministry of Cabinet Affairs and the Future (2017) highlighted this as one of the important forces for future foresight. This was evident in the recent Purdue-Kaplan University case (Purdue University 2017). This is technically an acquisition; however, the purpose and dynamics are quite similar to a merger. The strategic decision was considered as an extremely bold, aggressive, and exciting move toward the future of online education (Fain & Seltzer 2017). The President of Purdue University specifically stated that this move was because “none of us knows how fast or in what direction online higher education will evolve, but we know its role will grow, and we intend that Purdue be positioned to be a leader as that happens” (Purdue University 2017, para. 3). This unusual acquisition was commended by a number of experts and scholars as a flagship jump into the futuristic online education front (Belkin & Korn 2017). This is a direct

example of how future foresight inspired Purdue University's President to go for an acquisition that builds their readiness for a technologically-driven higher education in the future. Therefore, based on these two aforementioned examples, the researcher argues that future foresight can prove to be crucial and vital for sound merger decisions and for the effectiveness of the higher education merger. The decision makers and merger leaders need to have that outlook and those competencies that enable them to foresee the dynamics of the future and assess its implications on the higher education merger decision. In fact, more than this, the researcher argues that future foresight should be the primary basis for the higher education merger decision. In the sense it should overarch the other factors and play a mediating role between the other factors and the effectiveness of the ultimate merger.

Other than that, as part of future foresight as well, professional higher education bodies and consultants are increasingly concerned with identifying and forecasting future industry trends to aid strategic decision makers in higher education institutions. An example for this is the OECD (2009) report which highlighted how globalisation is affecting the tendencies and trends in the higher education industry, and how that in return is affecting the various future foresight scenarios for the same. The two main scenarios represented in this report are harmonisation and convergence or diversification and competitiveness of the higher education industry in the future (OECD 2009). To explain, the first scenario calls that the players of the higher education industry – the higher education institutions – will become the similar to each other and offer same programmes and services. The other scenario calls that the plays and higher education institutions, in their attempt to compete with each other, will diversify their offerings and services. They will be different from each other. The researcher's concern from this report is to highlight the importance of having this future foresight of predicting the different scenarios and taking the higher education merger decisions accordingly – whether based on scenario one or two, or else.

Furthermore, other consultants of future foresight have also noted that higher education affordability, imbalances in capacity, advancements in technology, and the mobility of international students are going to reshape the higher education industry drastically (Choudaha & Rest 2018). These forecasts affect decision makers in higher education institutions in their decisions regarding mergers. Thereby, this study argues that future foresight would influence higher education mergers hand in hand with the other strategy tripod factors – as a supporting mediator. Furthermore, regardless of the other key factors that contribute to the success and effectiveness of higher education mergers, if there was a lack of future foresight competence then the merger is likely to fail. In other words, for the sustainability and strength of the merger, future foresight competence is vital.

The future foresight competence is recommended to be the source of inspiration for successful government-led initiatives through gaining insights of future change drivers (Calof and Smith, 2010). This competence can be utilised as a catalyst that helps in building governmental vision on long-term challenges and plan accordingly (Ughetto, 2007). Further, future foresight could be used to evaluate and future-proof government strategies and actions (Calof and Smith, 2010).

On the other hand, creating knowledge that is based on future discussions and revelatory statements have shown to improve performance and support the planning process in organizations (Dufva and Ahlqvist, 2015). The organizational knowledge that is created based on future foresight strengthens the competitive advantage of companies by providing alternatives to outperform their rivals (Heiko et al., 2010). In other words, future foresight aids the competitiveness of an organization and enhances its effectiveness. In fact, the organizational knowledge needs a future reflection view to strengthen its competitiveness and effectiveness (Bootz et al., 2018). Future foresight supports the creation of knowledge that

reduces the insecurities towards the future, especially in turbulent and competition-intensive environments (Uotila et al., 2005).

Future foresight competence helps in creating knowledge that analyses the future trends and indicators of change in order to anticipate events and well prepare for them (Heiko et al., 2010). That is, future foresights competence helps organizations perform better when the competition is intense in the industry. Besides, future foresight enables the knowledge creation capability by focusing on the knowledge and learnings that would foster the flexibility and strategic agility of the organization in competitive environment (Vecchiato, 2014).

Therefore, based on the aforementioned supports, future foresight's mediation effect is significant to explain the relationship between the strategy tripod factors and higher education merger effectiveness. The researcher uses this argument for the following three hypotheses:

- a. Future foresight competence positively mediates the relationship between government support and merger effectiveness.
- b. Future foresight competence positively mediates the relationship between competitive intensity and merger effectiveness.
- c. Future foresight competence positively mediates the relationship between knowledge creation capability and merger effectiveness.

That is, for a higher education merger, the future foresight competency should be tailored and utilised as an added value in securing government support, in addressing the industry competition, and in creating knowledge – as all of these factors feed into the ultimate effectiveness of the merger.

3.3 Higher education merger effectiveness

The success or effectiveness of mergers is often regarded to the high level of relatedness between the involved businesses (Bruton, Oviatt & White 1994; Shelton 1988). Korican, Barac and Jelavic (2014) also support the notion that mergers between companies that have similar production technologies, similar target markets, similar distribution channels and similar research activities prove to perform better than unrelated mergers. Nonetheless, there are other studies that have found that there is no direct relationship between mergers' performance and the relatedness of the business (Hitt et al. 2012). Barney (1988) has also concluded that the mere relatedness of a business cannot be considered a sufficient factor in determining the success of mergers. This makes sense when considering mergers within the same industry or within similar institutional fields – such as the higher education industry. Nonetheless, this indicates that there must be other reasons that influence the performance of mergers. Therefore, there is a constant need for further research to determine the factors that impact the success and effectiveness of mergers, and this is what this study is trying to address by applying a holistic view through the strategy tripod and future foresight perspective.

Based on the literature review, we have concluded that higher education institutions participate in mergers mainly to increase their efficiency and effectiveness, in a way or the other. According to scholars, an important goal of higher education mergers is to save money, eliminate duplications, enhance academic integration, increase value-added collaborations, and diversify the national and international academic profiles (Skodvin 1999). In other words, a merger helps in the economies of scale and the economies of scope of the newly formed higher education institution. Other scholars have noted that effectiveness of higher education mergers depend on the achievement of its strategic outcomes (Sułkowski, Fijałkowska & Dzimińska 2018). These outcomes may include: market expansion, increasing students access

to higher education, growing economies of scale among higher education institutions, strengthening the national and international competitive advantage of the participating higher education institutions, satisfying the needs of different stakeholders, educational diversification, optimizing operations and the related costs (Aula & Tienari 2011; Docampo, Egret & Cram 2015; Goedegebuure & Meek 1994; Harman & Meek 2002; Pinheiro et al. 2017; Sułkowski 2017; Tirronen & Nokkala 2009). And eventually, the achievement of these goals and strategic outcomes are intended to improve the effectiveness of the higher education institutions' mergers.

Simply speaking, the level of effectiveness could be assessed by comparing between these aforementioned goals and the subsequent actual results of the higher education merger. However, it is worth mentioning that scholars and practitioners determine the effectiveness of mergers in the higher education industry in different ways as well. Some studies that were done on schools have linked their performance effectiveness to measures of “educational leadership, achievement-oriented policy, orderly and safe climate, clear objectives, high expectations, evaluation of pupils' progress, continuity and consensus among teachers” (Scheerens 1990, p. 67). Other studies have linked educational effectiveness to certain outcomes and indicators, such as: the achievement of higher qualities of education, the delivery of excellent graduates to the workplaces, and the improvement of the disadvantaged segment of students (Creemers & Scheerens 1994). Researchers have also linked the overall higher education institution effectiveness to the primary role of teachers. That is, the overall measure effectiveness has been directly linked to the individual attributes of teachers in terms of their effective teaching styles, cognitive skills, classroom management, and pedagogical knowledge (Bruijn & Leeman, 2011). In other words, higher education mergers that succeed in achieving higher levels of teaching-effectiveness, along with the other above-listed

strategic outcomes, are deemed to be effective mergers. Thereby, the higher education merger effectiveness can be defined in different ways by the higher education institutions.

3.4 Summary of arguments

Each one of the four hypotheses of this study are supported by a couple of examples of higher education mergers from the reviewed literature. However, it is important to note that these cases did not demonstrate isolated factors that influenced their effectiveness or failure. In other words, each merger's case discusses a number of factors that interchangeably played a role in the higher education merger's effectiveness. The supporting arguments highlighted the factors that are tailored to each specific hypothesis. It is also worth mentioning that the extensive review of these various higher education mergers' case studies made it crystal clear that an amalgamation of factors should be considered before making any strategic decision. The proposed Strategy Quadpod attempts to fulfil this objective and literature gap by providing a holistic framework that can potentially cover the key relevant aspects that affect the effectiveness of higher education institutions mergers.

3.5 Conclusion

To summarize, this study's main hypotheses are:

- 1) Government support significantly influences merger effectiveness.
- 2) Competitive intensity significantly influences merger effectiveness.
- 3) Knowledge creation capability significantly influences merger effectiveness.
- 4) Future foresight competence significantly influences merger effectiveness.
 - Future foresight competence positively mediates the relationship between government support and merger effectiveness.
 - Future foresight competence positively mediates the relationship between competitive intensity and merger effectiveness.

- Future foresight competence positively mediates the relationship between knowledge creation capability and merger effectiveness.

By operationalising the strategy tripod framework, the researcher argues that the most important factors that influence higher education merger effectiveness are: government support (institutional-based view), competitive intensity (industry-based view), and knowledge creation capability (resource-based view). In addition, the researcher argues that there is a missing element in the strategy tripod that pertains to future foresight which could significantly influence higher education merger effectiveness – independently and as a mediator to the other three factors.

Government support was deemed the most important because there are examples of successful higher education mergers that were driven and supported by the government. The governmental support gave the merged higher education institutions some kind of legitimacy and strength that wouldn't be there otherwise. Moreover, when there is less regulatory or governmental distance and demands, it is more likely that the merger will be effective. That is because the merged higher education institutions would need to adhere to a smaller number of rules and regulations that might hinder their merger process or create obstacles in their way. Thereby, the researcher argues that government support, demonstrated in having favourable regulatory conditions, will significantly influence the effectiveness of the higher education mergers. These favourable conditions may include easy licensing, financial and tech support, etc.

Additionally, higher education institutions are expected to work more efficiently and effectively when they have to compete against other players in the industry. In other words, being attentive to the dynamics of the industry plays an important role in the effectiveness of the higher education institutions. Nonetheless, it is vital that the merged

higher education institutions can collaboratively work together to have a strong knowledge creation capability to add value to the newly formed institution. In other words, they should not be working in silos after the merger. Lastly, to be an effective higher education merger, the research argues that having future foresight and a future outlook towards the new trends in the industry is of utmost importance and value. In fact, the research argues that future foresight assists and further enables the other three strategy tripod factors into becoming more influential when the higher education merger effectiveness is in consideration. Therefore, the researcher argues that future foresight should be added to the strategy tripod.

4.0 Chapter Four: Methodology

As noted in the earlier literature review chapter, the majority of the studies that were conducted on mergers in the higher education industry were based on the case study methodology. However, those cases were not looking at higher education mergers from a systematic, holistic or integrated perspective (Chipunza & Gwarinda 2010; Kitchener 2002; Locke 2007; Maduro, Fernandes & Alves 2018; Manona 2015; Ngcamu 2017). Furthermore, there is a lack of quantitative studies that examine higher education mergers (Romanenko & Lisyutkin 2018). According to Saunders, Lewis and Thornhill (2019), quantitative research is designed to examine the relationship between variables, results in data that is usually numeric and standardised, analyses data through statistics and derives meanings from numbers.

According to Vosse and Aliyu (2018, p. 1106), “the topic of merger as a form of organisational change has largely been neglected by higher education researchers, so details and data specific to the education arena are limited. In particular, minimal quantitative research examines the social and cultural aspects of consolidating higher educational institutions”. Therefore, the core value and significance of this study lies in its use of a quantitative methodology and the application of a three-dimensional theoretical lens of the strategy tripod on higher education mergers, along with the future foresight perspective. This theoretical underpinning, with the identified constructs under each perspective, led the researcher to choosing a deductive, quantitative methodology for this study. According to Creswell (2014), the selection of a research method or a research approach is based on various factors and elements such as the research problem, the research assumptions, and the research design, etc. This study follows the quantitative method as it is fit for the purpose of this study, which is to test and explain the relationship between three key strategy tripod

factors that influence the effectiveness of higher education mergers in the world (particularly in Europe and USA), with the mediating influence of future foresight competence.

As evident from the literature review and developed hypotheses, the problem of the high rates of failure among mergers in the world indicates that the reasons behind these failures are yet to be identified or systematically explained. Therefore, after the identification of the key three to four factors – government support, competitive intensity, knowledge creation capability, and future foresight competence – the researcher examines the significance of these factors in influencing the higher education mergers' effectiveness. Hence, an explanatory research in this field will add great value to both the knowledge creation and the practical implications of higher education. Moreover, since this study is relying on the theoretical background of the strategy tripod and future foresight, it is anticipated that this study will result in the development of an extended strategy tripod framework that is a Strategy Quadpod for future scholarly and practitioner references. This chapter will discuss and clarify the methodology-related aspects of this study, such as the research approach, research philosophies, ethical considerations, research design, research validity and reliability, sampling strategies, data collection and analysis methods.

4.1 Research approach

There are two main research approaches that scholars usually follow in their studies, the inductive and the deductive reasoning (Lewis 2015; Saunders, Lewis & Thornhill 2012). In the inductive reasoning, the researchers main focus would be to develop an understanding of the topic through engaging with the study participants and collecting data, then later on formulating theory based on the findings (Saunders, Lewis & Thornhill 2016). Whereas, in the deductive reasoning, the researcher starts with a theoretical background and formulates a number of propositions or hypotheses that are tested based on the subsequent collection of data (Saunders, Lewis & Thornhill 2016). In other words, in the deductive approach,

researchers build theme or relationships that are then checked against the data (Creswell & Poth 2017). Since this study is based on the theoretical underpinning of the strategy tripod and future foresight, it follows the deductive reasoning approach. However, it is worth mentioning that there is a third reasoning approach that could be considered for future studies.

The abductive reasoning approach is a relatively new research approach that has been gaining popularity in the scholarly world (Bryman & Bell 2015; Kovács & Specs 2005). Scholars argue that the new abductive reasoning approach enables researchers to move back and forth between theory and evidence – as shown in the below figure (Alrajeh, Fearfull & Monk 2012; Dubois & Gadde 2002). It enables the researcher to use their intuition and creativity in creating knowledge that is derived from observations and social interpretations (Lukka & Modell 2010; Kovács & Specs 2005). According to Rahlm (2010), “in an abductive model, new ideas emerge by taking various clues and restrictions into account, and by searching and combining existing ideas in novel ways”.

Despite these advantages of the abductive approach, the deductive reasoning is deemed more fit for the purpose of this study. This study is primarily relying on the theoretical background of the strategy tripod and future foresight concepts, and the developed hypotheses are well aligned with these four-legs of the proposed quadpod framework, so it is evident that the whole research is driven by the deductive reasoning technique. In fact, the key identified factors, the survey questionnaire, and the data collection process is directly mapped to the strategy tripod and future foresight perspectives. Therefore, for the purposes of this study, the deductive reasoning method has been chosen as the best suitable approach. Nonetheless, future scholars can build on the results of this study with an abductive approach that moves in a two-way direction.

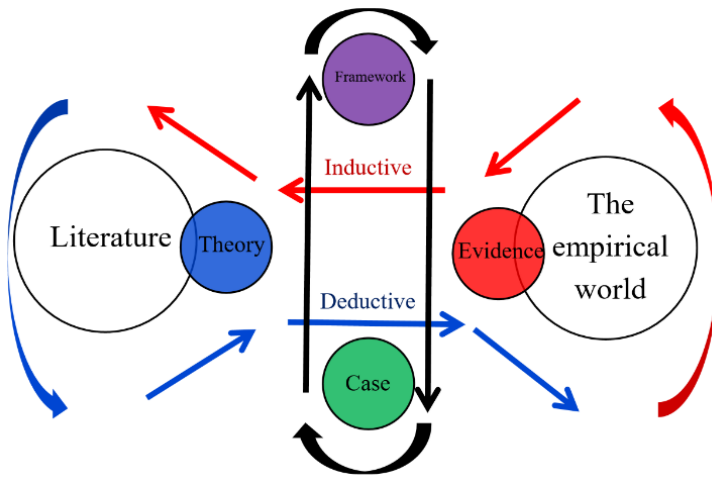


Figure 3: Inductive and deductive approach directions

Moreover, this study argues that the abductive reasoning is of a level of complexity that is not necessary for this particular topic. That is because abductive reasoning is usually utilised when there are *puzzles* or *surprising facts* in the studied topic (Bryman & Bell 2015). However, in the topic of higher education mergers, decisions of going for a merger are usually taken after utmost considerations and extensive due diligence, so usually there is less room for puzzles or surprises. The factors influencing the effectiveness of the higher education mergers could very well be identified; however, the high rate of merger failures calls for further examinations – which is where the future foresight element is argued to play a significant mediating role in this quantitative study. That is why the deductive approach makes more sense than the abductive approach.

4.2 Research philosophy

To test the relationship between the variables of any study, a number of philosophical assumptions and paradigms are involved. For the purposes of this particular study, the postpositivist worldview is utilised. However, before venturing to explain the paradigms and the philosophical positions of this study, the definition of each is presented. According to Saunders, Lewis and Thornhill (2019, p. 140), “a paradigm is a set of basic and taken-for-granted assumptions which underwrite the frame of reference, mode of theorising and ways

of working in which a group operates”. In simple words, a paradigm is the “participatory inquiry” (Saunders, Lewis & Thornhill, p. 143). According to Collis and Hussey (2009, p. 55), “a research paradigm is a philosophical framework that guides how scientific research should be conducted”.

There are four main paradigms for organisational analysis: radical humanist, radical structuralist, interpretive and functionalist (Saunders, Lewis & Thornhill 2019). The functionalist paradigm is the one in which most business and management research operates (Saunders, Lewis & Thornhill 2019). “Research in this paradigm is concerned with rational explanations and developing sets of recommendations within the current structures” (Saunders, Lewis & Thornhill 2019, p. 140). In addition, according to Saunders, Lewis and Thornhill (2019, p. 141), “research carried out within the functionalist paradigm is most likely to be underpinned by the positivist research philosophy”. This is the most suitable paradigm for the purposes of this study.

The researcher reviewed the other paradigms, such as the interpretive, radical humanist, and radical structuralist and found them not as apt for this study as the functionalist paradigm. For instance, the interpretive paradigm is attached to how individuals make sense of the world around them. It is about discovering multiple subjectivities. On the other hand, the radical structuralist paradigm is about approaching the research with the intention of achieving fundamental change based on the analysis of a certain phenomenon in an institution or an organization. This paradigm is usually underpinned by a critical realist philosophy. Last but not the least, the radical humanist paradigm is also concerned with bringing about substantial change and changing the status quo. However, this paradigm approaches the research from a subjective ontology – unlike the radical structuralist. This study does not fit these paradigms; it fits the functionalist paradigm the best.

On the other hand, in terms of the research philosophies, they are more like the schools of thought behind a certain research approach (Saunders, Lewis & Thornhill 2019). According to Creswell (2014), there are four main philosophical worldviews: the postpositivist, the constructivists, the transformative, and the pragmatism. Whereas, according to Saunders, Lewis and Thornhill (2019), there are five management philosophies: positivism, critical realism, interpretivism, postmodernism, and pragmatism. The postpositivist approach is sometimes referred to as the positivist, empirical science, scientific method, or science research method (Creswell 2014). After reviewing all philosophical worldview, the researcher found the postpositivist approach to be most fit for this study. For instance, the constructivism research philosophy is deemed most appropriate for study's that are qualitative in nature and depend on individuals' interpretations of their own experiences (Creswell 2007). In the constructivism philosophy, the researcher acknowledges that people construct their realities based on their individual experiences and understandings (Saunders, Lewis & Thornhill 2015). Since the main purpose of this study is not to understand or explore the factors that influence the effectiveness of higher education mergers, but rather to explain and test the theory and hypotheses, the postpositivist approach is more fit.

In the postpositivist approach, the researcher builds on the traditional positivism thinking. The positivism worldview believes that knowledge is *absolutely* true (Creswell 2014). In other words, in the positivism approach, there is one true reality (Saunders, Lewis & Thornhill 2019). However, this approach has been criticised. In fact, scholars have noted that the positivism approach lacks making the association between realities and the uniqueness of the universe (Aliyu et al. 2014). That is, the positivism approach sees the world in black and white whereas it is in fact grey. Guba & Lincoln (1996) have also supported this notion that the world is based on partaking and participative realism. This is where the positivist worldview has been criticised and the postpositivist approach has been developed to

include these participative realities where knowledge is *probably* true and not absolutely true. For the purposes of this study, the researcher follows the post-positivism approach since it matches the epistemology of this research problem and the anticipated empirical findings.

To explain, epistemology is the study of how we get knowledge and what are the sources of getting knowledge. According to Saunders, Lewis and Thornhill (2019, p. 144), epistemology is “what constitutes acceptable knowledge”. According to scholars, there are four sources of knowledge: authoritative, intuitive, rationalist or logical, and empirical (Kivun Ja & Kuyini 2017). The authoritative knowledge is basically gathered from books and seminal authors, the intuitive knowledge is based on faith and believes, the rationalist knowledge is based on reasoning and analysis, and the empirical knowledge is based on objective facts. Epistemology also explains how we know reality (Aliyu et al. 2014). It is considered a useful way of evaluating the external world and realities around us, by distinguishing between falsehood and truth (Kivun Ja & Kuyini 2017). This study’s epistemology paradigm is based on the postpositivist and objective knowledge that is gathered from the literature review

Other than that, in terms of the epistemology, as established from the literature review, there are three main pieces of knowledge that the researcher considers: mergers’ failure rates are very high, the number of mergers in the higher education industry is increasing, and there is a lack of studies that tests factors that influence the higher education mergers’ effectiveness from an integrated-holistic perspective. In terms of the ontology, according to Guba and Lincoln (1996), one must ask a question that is related to the type of truth and what is known about it. According to Saunders, Lewis & Thornhill (2019, p. 144), ontology is the “nature of reality or being”. Therefore, the researcher follows the objectivism approach for the ontology since the study’s constructs’ nature can be measured statistically. In this approach, reality is critically analysed but imperfectly and probabilistically

examinable (Aliyu et al. 2014). This matches the study's post-positivism, approach as well (Appendix 7).

In terms of the axiology paradigm, the researcher follows the four main principles of PAPA accordingly. PAPA refers to: Privacy, Accuracy, Property, and Accessibility (Kivun Ja & Kuyini 2017; Sidgwick 1907; Slote 1985). According to Saunders, Lewis and Thornhill (2019, p. 144), axiology is the "role of value". Thereby, in terms of the *privacy*, the researcher will ensure that the necessary data is collected from the participants without asking for additional information for curiosity purposes only. In terms of the *accuracy*, the researcher will also adhere to the validity and reliability tests of the data to ensure reasonable accuracy is intact. In terms of the *property* and in terms of the *accessibility*, the researcher will also safeguard the collected data and restrict access to what is required for the study purposes only – without invading the confidentiality of the participants and relevant respondents of the study. Lastly, the researcher will keep in mind the greater value and objective of the study which is the welfare of people.

One of the general ethic advocates is that decision-makers should consider the ultimate welfare of the individuals when making any decision. higher education institutions need to consider the same when deciding to participate in a merger. Leaders and governments are ought to be well equipped to take higher education merger decisions because the newly-formed higher education institution's effectiveness or failure will impact people's lives in different ways. Therefore, ethically speaking, examining the factors that influence the effectiveness of higher education mergers will contribute to individuals', societies', communities', and countries' overall wellbeing.

4.3 Ethical consideration

Other than the PAPA considerations, when conducting any research, the researcher needs to be careful of a couple of ethical issues. After listing, selecting, and contacting the

higher education institutions that will be part of this study's sample, each participant within these higher education institutions will be assured in writing – as part of the online survey - that their identity, information, and shared data will be completely anonymous. Moreover, at the beginning of the online questionnaire, the objectives of the research will be briefly explained to the participants to gain their confidence and set the stage for the study and survey items. A consent statement will be included in the brief as well.

4.4 Researcher bias

Another ethical issue that needs to be taken into consideration for this study is researcher bias. Since the researcher is working in the higher education industry itself, an issue of researcher bias might be raised. An interesting way of looking at this is explained by Walkerdine (1997, p. 59) that says: “instead of making futile attempts to avoid something that cannot be avoided, we should think more carefully about how to utilise our subjectivity as part of the research process”. In other words, the research should see this as an advantage and embrace it. Researchers should utilize the fact that they are part of the same field by trying to understand the linkage between the participants responses in a better way. However, scholars have also noted that it is crucial that the researcher is insightful about their own beliefs and how that may affect their interpretations of the study participants' experiences (Arber 2006). Nonetheless, this is more relevant in qualitative methods or study's that are based on interviews as they might probe the researcher's own frame of reference (Easterby-Smith & Lyles, 2003). This is all avoided in this particular study as it is based on a quantitative methodology and will use online surveys. The questionnaire uses pre-developed items which also protects the study from any researcher bias in this area as well.

4.5 Research design and measurement scales

This study follows the quantitative research design by using an online survey instrument. In particular, the study follows the nonexperimental form of research that is the

correlational design. According to Creswell (2014, p. 12), the correlational design is where “investigators use the correlational statistic to describe and measure the degree or association (or relationship) between two or more variables or sets of scores”. In this study, the researcher will employ these kinds of correlational statistical measures that include structural equation modelling, amongst others, to test multiple variables. These variables, or constructs, as identified in the conceptual framework of this study, will guide the survey items accordingly. Scholars have noted that questionnaire items should “be concise and unambiguous, avoid double questions, avoid questions involving negatives, ask for precise answers, avoid leading questions” (Burgees 2001, p. 11). The researcher has adopted pre-validated items but has ensured to adhere to these characteristics as well. Only some of the items were modified a little to match the higher education context. Below is the list of measurement scales that will be used in this study to collect data along with their respective source references.

Table 2: Research constructs and questionnaire items

Government support (5-point Likert scale)	<ul style="list-style-type: none"> • The government implemented policies and programmes that have been beneficial to the organization's merger and operations • The government has provided our organization with technology information and technical supports during or post our merger • The government played a significant role in providing financial supports that was needed for our organizational merger and operations 	(Su et al. 2016)
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	<ul style="list-style-type: none"> • The government helped our organization to obtain the required approvals or licenses for the merger and smooth operations 	
Competitive intensity (5-point Likert scale)	<ul style="list-style-type: none"> • There is a constant rivalry on the fees and educational tuition amongst our merged university and other universities. • Our competitors in the higher education industry respond swiftly to any action or strategic decision that our merged university takes. • Almost every day there are new moves and actions that we hear our competitor universities are taking. • The level of competition in our higher education industry is fierce. 	(Su et al. 2016)
Knowledge creation capability (5-point Likert scale)	<ul style="list-style-type: none"> • Employees from the originally merged organizations met frequently to discuss work-related ideas and new developments with each other • Employees from the originally merged organizations did not have difficulty getting together to exchange new ideas and developments 	(Su et al. 2016)

	<ul style="list-style-type: none"> • Employees from the originally merged organizations were available to discuss new ideas or developments with each other • Employees from the originally merged organizations felt free to contact anyone to discuss new ideas or developments • Employees from the originally merged organizations were proficient at combining and exchange ideas to solve problems or create opportunities with each other • Employees from the originally merged organizations did a good job of sharing their individual ideas with each other - to come up with new ideas, products, or services • Employees from the originally merged organizations learned to effectively pool their ideas and knowledge together • Employees from the originally merged organizations often exchanged and combined ideas to find solutions to problems together • Employees from the originally merged organizations saw benefits from exchanging and combining ideas with one another 	
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	<ul style="list-style-type: none"> • The most valuable ideas seemed to come when employees from the originally merged organizations pooled their efforts together • Employees believed that, by exchanging and combining ideas, they can create value for the newly merged organization together. • Employees believed that, by pooling their efforts, they can create value for the newly merged organization together. 	
Future foresight competence (6-point Likert scale)	<ul style="list-style-type: none"> • Tests new trends that arise in the higher education industry early • Conscious of big trends in society that are related to higher education • Goes along when new trends in higher education come • Takes advantage of trends that pop up in the higher education industry • Considers how higher education trends interact with our organizational systems • Focuses on questions that are related to the future of higher education • Interested in questions that are related to the future of higher education 	(Van der Laan & Erwee 2012; Gary 2008; Dian & Framtidsbygget, 2009)

	<ul style="list-style-type: none"> • Focuses on greater future questions when it comes to higher education • Quickly adjusts to new situations that happen in the higher education industry • Makes things happen when the higher education industry's future demands it 	
<p>Merger effectiveness (5-point Likert scale)</p>	<p>Please rate your organization's effectiveness in terms of its past performance over the last three years before the merger (3 years pre-merger) to the last three years after the merger (3 years post-merger): on a scale where 1 being 'much worse' and 5 being 'much better' in terms of the following indicators:</p> <ul style="list-style-type: none"> - Research output - University ranking - Students retention - Student enrolments - Quality of teaching - Quality of academic service - Differentiation in course offerings - Clarity of direction and policies - Sustainable management - Aligned leadership strategy - Brand and reputation - Financial success and tuition revenue 	<p>(Leslie, Abu-Rahma & Jaleel 2018; Sukboonyasatit, Thanapaisarn & Manmar 2011; Harman & Harman 2003; Chen, Wang & Yang 2009)</p>

	<ul style="list-style-type: none"> - Return on investment - Internal and external communication - Employees' belonging - Improved cultural and social activities 	
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All of the above questionnaire items are measured by a 5-point Likert scale, where 1 represents “strongly disagree” and 5 represents “strongly agree”. However, the future foresight competence construct is measured by a 6-point Likert scale, where 1 represents ‘does not describe my organization’, 3 represents ‘describes my organization a little bit’, and 6 represents ‘describes my organization perfectly. All of these items are taken from high quality scholarly articles, published in quartile 1 to 3 academic journals. Moreover, all of these items are pre-validated and reliable measures with Cronbach alpha’s value is higher than the cut-off level of 0.7 (Hair et al. 2006; Su et al. 2016; Van der Laan & Erwee 2012; Yoon & Kim 2015;). Thereby, for this study, the researcher opted not to conduct a pilot study.

Pilot studies are usually used to conduct a sample study that is smaller in scale from the actual primary study, and these type of pilot studies are called ‘feasibility studies’ (Van Teijlingen & Hundley 2001). However, a pilot study is not feasible or practical for this type of study. That is because the study is at the higher education institution’s level, and it will not be possible to go for a pilot case study since finding higher education merger-candidates, and getting their permission, is a challenge in the first place. Moreover, there is no need to test the method or the questions that are used in this study because they are based on well-established literature and previous studies. Other than that, one of the reasons of performing pilot studies is to test the research instrument – questionnaire in this case - with a smaller scale sample before going ahead with the final field work and empirical data collection (Van Teijlingen &

Hundley 2001). This is usually to check the validity and reliability of the measurement scales. However, since the researcher has not developed new scales for this study, there is no need to conduct a pilot study. Nonetheless, to check the face validity of the scales, the researcher contacted a panel of professional experts from the academic and non-academic field to comment and validate the understanding, ease, and appropriateness of the survey questions and measurement scales.

Furthermore, it is worth mentioning that all of these measures are of a subjective nature. In other words, they are based on the perception of the managers of the higher education merger. However, this has been debated in the scholarly field and a conclusion has been made that subjective measures usually give the same results as objective measures (Dawes 1999). In the cases where objective figures and data are challenging or not possible to obtain, scholars have ventured to measuring subjective data (Dess & Robinson 1984; Schoenberg 2006). Moreover, studies have proven that there is a positive correlation between the results of subjective measures and objective ones (Dawes 1999; Dess & Robinson 1984). Henceforth, the research has depended on the subjective perspective of the survey participants in this study.

In addition to above main items, the researcher included some basic demographics and general questions in the online survey. These questions will help in the descriptive and findings analysis of the responses. Moreover, a couple of these questions will help in filtering the data and ensuring that only members of a higher education institution that went through a merger in the past five to ten years have participated in the study. These questions will include:

- Are you currently part of a higher education institute that have participated in a merger in the past?
- When have your higher education institute participated in a merger?

- Were you part of the higher education institution at the time of the merger?
- What is your current level of employment in the higher education institution?
- Are you currently part of the academic or the non-academic staff of the institution?
- Were you involved in the process of deciding to participate in the merger?
- Do you believe this is a successful higher education merger?
- Please share any ideas that can help managers and practitioners to improve the effectiveness of strategic decisions in the higher education industry.

4.6 Validity and Reliability

Other than the face validity of the measurement scales, the researcher will rely on a statistical software to check the validity and reliability of the survey items. According to Bell, Bryman and Harley (2019, p. 278), “measurement validity relates to the question of whether a measure is measuring what it is supposed to measure”. Since this study uses pre-validated measurement scales, this diminishes the chances of getting a weak validity rate (Dian & Framtidsbygget, 2009; Gary 2008; Su et al. 2016; Van der Laan & Erwee 2012; Yoon & Kim 2015). Other than that, the constructs validity will be checked through the Statistical Package for the Social Sciences (SPSS) software. According to Saunders, Lewis, and Thornhill (2019, p. 517), “construct validity refers to the extent to which a set of questions (known individually as scale items) actually measures the presence of the construct you intended them to measure”. This test will be conducted by running the Exploratory Factor Analysis and the Confirmatory Factor Analysis tests in SPSS. The main aim of the Exploratory Factor Analysis is to define and determine the smallest number of items that produce the correlation within the larger set of variables (Cunningham 2008; Hair et al. 2006). In other words, the Exploratory Factor Analysis will check the groupings of the items under each tested construct, and the Confirmatory Factor Analysis will confirm the Exploratory Factor Analysis groupings again.

In terms of the generalizability, which is sometimes known as the external validity, the findings of this study will be generalizable on a global scale. That is because the target sample of this study are higher education institution from around the global that have participated in a merger. Therefore, the results would be generalizable on that scale as well. More details about the sampling technique will follow in the next sections. As far as the testing for reliability goes, the researcher will utilise the Cronbach's alpha value – from SPSS. According to Saunders, Lewis, and Thornhill (2019, p. 518), reliability is “concerned with the robustness of your questionnaire and, in particular, whether or not it will produce consistent findings at different times and under different conditions, such as with different samples or, in the case of a researcher-completed questionnaire, with different research assistants or field workers”. For the purposes of this study, the researcher is using an online based survey; therefore, multiple field workers or research assistants will not be applicable. However, to address the reliability concerns of the collected data and findings, the research will check for the internal consistency by using Cronbach's alpha, which is supposed to be above 0.7 (Field 2018; Mitchell 1996; Saunders, Lewis, & Thornhill 2019).

4.7 Sampling method and data collection

Before explaining the sampling technique and method for this study, a general definition of sampling is presented. There are various – similar - definitions to sampling in the scholarly field; however, the researcher particularly liked the one put together by Kayser et al. (2009). According to Kayser et al. (2009, p. 1), “sampling is defined as extraction of information from certain limited spaces and its transformation into a statement or measure that is valid for the entire (reference) space. The procedure should be reproducible in time and space, i.e. give the same results when applied under similar circumstances”. According to Bell, Bryman and Harley (2019), there are a number of terms related to sampling in scholarly research, such as: Population, sample, sampling frame, representative sample, probability

sample, non-probability sample, sampling bias and sampling error. These terms are going to be explained and applied on this study in this section. The data would be analysed using SPSS and Smart PLS – details will follow in chapter 5.

It is worth noting that random sampling is used for inferential statistics such as using structural equation modelling; however, this study follows the convenient sampling method. “A random sample is one where every member of the population has a chance of being chosen. Therefore, the sample is an unbiased subset of the population, which allows the results obtained for the sample to be taken to be true for the whole population; in other words, the results from the sample are generalizable to the population” (Collis & Hussey 2009, p. 209-210). Moreover, the main steps in choosing a random sample are: defining the target population, obtaining or constructing a sampling frame, determining the minimum sample size, and choosing the sample method (Collis & Hussey 2009). In this study, the researcher follows these steps where possible. First of all, the target population was managerial level participants from the higher education institutions that participated in mergers from the years 2013 and 2016 in Europe and USA. The researcher was able to identify 14 higher education institutions that merged from Europe and USA during the years 2013 and 2016.

Nonetheless, the researcher was not able to follow the random sampling method completely because obtaining an accurate and complete sample frame was not feasible. According to Saunders, Lewis and Thornhill (2019; p. 816), a sample frame is the “list of all the cases in the population from which a probability sample is drawn”. Bell, Bryman and Harley (2019, p. 188) describe the sampling frame as the “listing of all units in the population from which the sample will be selected”. In other words, the researcher was not able to get a list of all of the managerial level employees at the 14 higher education institutions. Furthermore, reaching out to the managers was a challenge in itself, especially since it was an international sample and during the COVID19 lockdown period. Additionally, according to

Saunders, Lewis and Thornhill (2019), researchers need to be aware of incomplete sample frames, information that is inaccurate, and information that is out-dated. Thereby, considering these factors, the researcher had to follow a convenient sampling method.

According to Bell, Bryman, and Harley (2019; p. 197), “a convenient sample is one that is simply available to the researcher by virtue of its accessibility”. The participants of this study were found on LinkedIn and academic websites and contacted. Around 3500 participants – higher education institutions’ managers - were contacted. These managers were filtered based on the sample frame criteria that was put by the researcher. Although the convenient sampling method is not considered the ideal method, it is sometimes an acceptable method depending on the research context and scenario (Bell, Bryman and Harley 2019). For instance, according to Bell, Bryman and Harley (2019, p. 198), a convenient sampling method is acceptable “when the chance presents itself to gather data from a convenience sample and it represents too good an opportunity to miss” and here the data could “provide a springboard for further research or allow links to be forged with existing findings in an area”. Moreover, convenient sampling is quite common in business and management research (Bell, Bryman & Harley 2019). Nonetheless, due to the challenges faced, the researcher had to go for convenient sampling for this study but at least the participants were from managerial strategic levels.

In addition, it is worth noting that it is very important to consider the sample size before running the structural equation modelling because it affects the significance of the results. However, there is no consensus on the sample size required to run Confirmatory Factor Analysis or path analysis effectively. For instance, a larger sample of more than 200 is suggested by scholars to be appropriate for structural equation modelling. On the other hand, it has been proposed that a minimum of 100 sample size is acceptable, and structural equation modelling can run well on a smaller sample size (Gallagher, Ting & Palmer 2008). In fact,

Hair et al. (2014) has listed a number of factors that influence the success of structural equation modelling. According to Hair et al. (2014), a sample size of 100 to 150 might be considered adequate if: (1) the number of latent variables is ≤ 5 ; (2) the minimum number of indicators per latent variable is 3; and (3) 0.6 or higher item communalities. For this research, the number of latent variables is less than 5, the number of indicators is three or more for all the latent variables, and the item communalities are higher than 0.6. Therefore, a minimum sample size of 100 is considered to have sufficient data to run the structural equation modelling and Confirmatory Factor Analysis analysis for this study (Gallagher, Ting & Palmer 2008; Hair et al. 2014).

Researchers have used Smart PLS for structural equation modelling in many fields, such as behavioural sciences, marketing, management information system, organization studies, and business strategy (Bass et al. 2003; Chin et al. 2003; Henseler et al. 2009; Hulland et al. 1999; Sosik et al. 2009). It is worth mentioning that Smart PLS is used by researchers for certain reasons. These reasons could be “sample size is small, applications have little available theory, predictive accuracy is paramount, and correct model specification cannot be ensured” (Wong 2013, p. 3). These rationales are apt for this study as the sample size is relatively small, there is little theory available that links future foresight with the strategy tripod, and the predictive accuracy is very important to introduce a quadpod. Therefore, the researcher found Smart PLS as the right software for the data analysis.

4.7.1 Population and generalizability

According to Saunders, Lewis and Thornhill (2019), a research population is the complete set of cases from which a sample is to be selected. In terms of this study, from the generic population of all higher education mergers from around the globe, the researcher has followed a convenient sampling method where the sample size is the cases of higher education mergers that took place between the years 2013 to 2016 from USA and Europe

only. For this study's sample size, the researcher found a total of 14 higher education mergers, and targeted at least 100 managerial level participants from these merged higher education institutions. There are two rationales for this selection; one for the chosen time frame and one for the geographical scale. Since one of the main constructs of this study is merger effectiveness, it is vital for the age of the merger to be at least three years old. That is because, according to literature, it is hard and impractical to determine the effectiveness, success, or failure of an organization within the first couple of years of its operations (Su et al. 2016). Difficulties and challenges in higher education institutions' merger usually do not appear in the initial phase but rather in the post-merger years (Salmi 2013). Mergers need to prove their ability to operate for a few years to be considered effective. This rationale determined the 2016 cut-off year. Regarding the 2013 cut-off, since our questionnaire items ask the participants to rate their higher education institution's effectiveness three years pre-merger and three years post-merger, the researcher found it apt to only extend the reflective years till 2010 (ie. 10 years from the present time only).

As for the global scale measurement, this choice was to strengthen the external validity of the results and to have a representative study. According to Vogt (1993, p. 99), "generalizability is the extent to which you can come to conclusions about one thing (often a population) based on information about another (often a sample). In post-positivists, quantitative studies, the researcher argues that the characteristics presented in a sample are the same as the ones presented in the whole population, and therefore the findings can be generalized over the whole population (Collis & Hussey 2009). Supported by the literature, the researcher views the higher education industry as a globalized industry that follows almost unified rules and norms across the world (Dewi 2018; Hammond 2016; Jung 2018; Knight 2008; Kreber 2009; Tsuneyoshi 2005). Thereby, it made sense to study the

phenomenon of higher education merger from a global perspective rather than from specific local regions.

4.7.2 Sample, sampling frame and technique

This study's population is the higher education mergers that took place during the years 2013 and 2016 in Europe and USA. The first step into selecting the study sample was to collate a list of higher education institution that participated in a merger during this period. The researcher collected a list of 14 higher education institutions. The researcher started contacting each higher education institution to administer the online questionnaire to the target participants – managerial level employees. Scholars have noted that mergers are a 'bottom-up' process and employees from various departments and layers are involved in and affected by the merger (Boston Conservatory at Berklee 2016; Romanenko & Froumin 2019; Sułkowski & Seliga 2018; Williams, Feldman & Connors 2016; Yoon & Kim 2015). However, it is worth mentioning that scholars have emphasized that students and general staff are usually kept away from the decision process as this may lead to a discouragement in the enrolment rates (Millett 1976). Thereby, since the measures of this study are particularly related to strategy, the target subjects for the study's survey are from the managerial levels only; top management, middle management, lower management. That includes both the academic and non-academic staff members. These participants will be contacted through online and telephonic instruments, such as emails, LinkedIn accounts, and phone calls. The number of participants required for this study is at least 100 participants, which is around five to ten participants from each merged higher education institution.

The sample frame of this study are all the managerial level employees that were part of the universities at the time of the merger, from either side of the merger. For example, out of the 14 total merged universities, university A was merged in 2016, so the sample frame will be the list of top, middle, and lower management that were part of university A during

2016. Moreover, the sample frame needs to include managers that were part of the higher education institution at least three years prior to the merger and three years after the merger. That is because the merger effectiveness items in this study's survey ask the managerial participants to reflect on the situation three years pre-merger and three years post-merger.

The researcher was not able to obtain an accurate sampling frame due to confidentiality, accessibility, and incompleteness issues. Therefore, the researcher could not follow a probability sampling method. According to Saunders, Lewis and Thornhill (2019), "the types of probability sampling are:

- 1) Simple random: Number all the cases in the sample frame 1, 2, 3, ... Then, selecting a sample from the numbered sample frame list using a spreadsheet's random number generator function.
- 2) Systematic random: Number all the cases in the sample frame 1, 2, 3, ... Then, select the sample at regular intervals from the sample frame list.
- 3) Stratified random: Divide the sample frame into significant segments/strata based on one or more attributes. Then, a simple sampling or a systematic sampling method is applied on each strata/segment/subset.
- 4) Cluster random: The sample frame here is a list of all clusters, rather than all individual cases. The researcher selects few clusters normally using random sampling. Afterwards, data is collected from every case within the selected clusters.

Types of non-probability sampling:

- 1) Quota: Divide the population into specific groups and calculate a quote for each group. Does not need a sampling frame. Often necessitates a sample size of 2000 and 5000. Quota are based on relevant and available data. Without sensible and relevant quotas, data may be biased.

2) Purposive: Needs the researcher to use judgement to select cases that will best enable answering the research questions and meet the objectives. It is often used when working with very small samples such as in case study research and when selecting cases that are particularly informative. This method cannot be considered to be statistically representative.

a. Extreme case: This is used for unusual or deviant cases with extreme outcomes.

b. Heterogeneous: This is used when cases are chosen based on their maximum variations and diverse characteristics. The data collected enables documenting uniqueness.

c. Homogeneous: This method focuses on one particular subgroup in which all the sample members are similar, such as a particular occupation or level in an organization. Characteristics of the selected participants are similar, allowing them to be explored in greater depth and minor differences to be more apparent.

d. Typical case: This is usually used as part of a project to provide an illustrative profile using a representative case. This method is not intended to be definite.

e. Politically important: This method depends on judgement regarding an anticipated political sensitive issue and the associated outcome when deciding whether to include a participant or not.

f. Opportunistic: This method is particularly used in inductive qualitative research when a new participant emerges and requires on-spot decision to be included in the research.

g. Theoretical: This method is particularly associated with inductive grounded theory. It is important to specify the 'where' to sample, and not necessarily the 'what' to sample. The sample is selected based on the need and as the theory is built by the evolving storyline.

3) Volunteer

a. Self-selection: In this sampling technique, cases or participants (usually individuals) are allowed to identify their desire to take part in the research. The researcher publicizes the need for cases, either by advertising through appropriate media or by asking the participants to take part in the research. Then data is collected from those participants who respond. Cases or participants that self-select often do so because of their strong feelings or opinions about the research questions or stated objectives. Sometimes, this is exactly what the researcher requires to answer his or her research questions and objectives.

b. Snowball: This method is used when it is difficult to identify members of the desired population. Contact is made with one or two participants, and then these participants identify further cases, and those new cases identify new ones and so on.

4) Haphazard

a. Convenience: This method is used when cases are selected without any obvious principles of organization and participants are selected because they are easily available and reachable.”

From the above-mentioned sampling techniques, the researcher found that the convenient sampling method is the most suitable for this research as the participants were reached through LinkedIn and academic websites. After conducting the desk research and identifying the 14 higher education institutions that participated in a merger in Europe and US during the period of 2013 to 2016, the researcher started collating contact information of the managers of these higher education institutions. The researcher searched through the online address books that are published in the respective higher education institutions’ websites to get the phone numbers and email addresses of the managers. Then the researcher started contacting the managers of these higher education institutions via calling them and/or sending them email requests to participate in this study and fill in the online survey. The

researcher also used multiple LinkedIn accounts and networks to send the managers requests to participate in the study. However, even after tremendous efforts, the response was negative and the requests were either completely ignored or directly rejected. Therefore, the researcher had to find a solution for this issue. After consulting the research department in a respected higher education institution and getting the approval from the Vice Chancellor of the researcher's institution, the researcher used an agency to help in the collection of data. In short, the researcher gathered the data through these steps:

- Identify the universities that went through a merger from an internet search
- Filter these universities based on the geographic location (mergers from Europe and US)
- Filter the Europe and US mergers by the years (mergers that took place 2013 to 2016)
- Send the final list of 14 universities to the data collection agency
- The agency will search by the name of the merged universities to find managerial level participants from LinkedIn and academic websites
- The agency will share the researcher's online survey link with the contacted participants for their input and final responses.

Based on the ethical form that was signed by the researcher and approved by the higher education institution, the names of the 14 higher education institutions and identities were kept completely anonymous. Since the use of the agency was officially approved and ethically signed off as well, there weren't any biases or data protection issues encountered. In fact, on the contrary, the study participants were not influenced by the researcher in any way since the survey link was shared with them through the agency. In other words, this method has somewhat guarded and protected the data from any bias or issue that may have resulted from another method of data collection.

4.7.3 Sampling bias and sampling error

The researcher acknowledges that this study's sample might fall under a sampling bias. According to Bell, Bryman and Harley (2019, p. 188), a sampling bias is "a distortion in the representativeness of the sample that arises when members of the population (or more precisely the sampling frame) vary in terms of how likely they are to be included in the sample, such that some groups are over-represented and others are under-represented by comparison to their proportions in the population". Since this study's sample frame includes 14 higher education institutions that have participated in a merger during the period 2013 to 2016, from different countries of Europe and USA, the proportion of mergers from each region is not equal. That is, the list includes higher education institutions from Europe mostly. Therefore, the sample might be biased towards Europe's mergers.

In terms of the sampling error, similar to the sampling bias, it refers to the variations between the selected sample and the overall population. In order not to have any sampling errors, a researcher should expect to have a sample that is equally split in terms of the population variables (Bell, Bryman & Harley 2019). However, in this study, this is a bit of a challenge. Similar to the sampling bias, the sampling frame is prone to distorted representation, thus sampling errors might occur as well. Nonetheless, the researcher will try to prevent any sampling errors or would keep them to a bare minimum level.

4.8 Conclusion

Scholars have remarked that there are qualitative studies that have looked at mergers in higher education from various angles; however, there is a need for an integrative, empirical, investigation of merger activities in higher education (Johnes 2014; Liu, Patton & Kenney 2018). In other words, different qualitative studies have looked at compartmentalised aspects of higher education mergers; there is a lack of studies that explore higher education mergers from an integrated perspective. Therefore, this study's value lies in its integrated approach of

investigating higher education mergers from a holistic perspective – using the strategy tripod and future foresight. There is a noticeable lack in empirical quantitative studies that have identified the constructs and measurement scales for the strategy tripod or future foresight elements. Therefore, this study intends to examine this phenomenon by testing the constructs that influence the effectiveness of mergers in the higher education industry, through a systematic quantitative study. In conclusion, this study will add value to knowledge by extending the strategy tripod framework to include future foresight as a key perspective/leg, when assessing strategic decisions - such as mergers - in higher education. Moreover, the factors examined in this study can be used to guide and improve practitioners' strategic decisions in the higher education industry.

To summarize, this study follows a quantitative and deductive methodology that operationalises and applies the strategy tripod and future foresight perspectives on higher education mergers. Majority of the studies that were conducted on mergers in the higher education industry were based on the case study methodology. The case studies were not looking at higher education mergers from a systematic, holistic or integrated perspective (Chipunza & Gwarinda 2010; Kitchener 2002; Locke 2007; Maduro, Fernandes & Alves 2018;; Manona 2015; Ngcamu 2017). This study follows the quantitative method as it is fit for the purpose of this study, which is to test and explain the relationship between three key strategy tripod factors that influence the effectiveness of higher education mergers in the world (particularly in Europe and USA), with the mediating influence of future foresight competence. In the deductive approach, researchers build theme or relationships that are then checked against the data (Creswell & Poth 2017). This study is based on the theoretical underpinning of the strategy tripod and future foresight. This study follows the post-positivism approach since it matches the epistemology of this research problem and the anticipated empirical findings. The researcher follows the objectivism approach for the

ontology since the study's constructs' nature can be measured statistically. In terms of the axiology paradigm, the researcher follows the four main principles of PAPA accordingly. PAPA refers to: Privacy, Accuracy, Property, and Accessibility (Kivun Ja & Kuyini 2017; Sidgwick 1907; Slote 1985). This study's population is the higher education mergers that took place during the years 2013 and 2016 in Europe and USA. The target subjects for the study's survey are from the managerial levels only; both the academic and non-academic staff members – following a convenient sampling method.

5.0 Chapter Five: Data analysis

This study empirically established the contribution of the strategy tripod dimensions on merger effectiveness in the higher education industry. Also, the research identified future foresight competence as an essential construct that predicts the success of mergers in the higher education industry and as a mediator to the relationships between the strategy tripod legs and the merger effectiveness. In other words, the study's collected data supported the developed hypotheses and arguments. The data supported the researcher's argument that if the managers and decision makers of the higher education institutions ensure the presence of the strategy tripod factors – government support, competitive intensity, and knowledge creation capability – along with future foresight competence, they can participate in a merger that is less likely to fail and more likely to be effective. That is, government support, competitive intensity, knowledge creation capability, and future foresight competence influence and contribute to the higher education merger effectiveness.

The government support was measured through policies, technological support, financial support, and licenses. The findings of the study explain a positive relationship between this construct and the merger effectiveness. The result validates the argument of Cui et al. (2011) who found that governmental pressures impact on the effectiveness of strategic decisions of businesses. Besides, the ineffective governmental laws can hinder the institution strategic activities (Su et al., 2016). This can be clearly modelled in the example of the South African universities' mergers that were led by the government in the 1990s (Hall et al., 2004; Ngcamu, 2017). Although the conditions at that time were mostly indicative of a failed merger, the merger of the Durban Institute of Technology was successful and its success was mainly credited to the governmental support (Ngcamu, 2017).

The findings of the study highlight the contribution of competitive intensity on the merger effectiveness. The various trends and the level of competition in the higher education industry

enabled the strategic decisions towards strengthening the competitive advantage (Boling et al., 2017; Harris, 2018; Hammond, 2016; Helms and Nixon, 2010; Porter, 1979). The higher education institutions were choosing to form strategic alliances or mergers to strengthen or sustain their competitiveness, such as in the cases of Anne University and Cranfield School of Management (Exter et al., 2013).

The results of the study explain that the higher education institutions need to be compatible enough to build a strong knowledge creation capability for their merger effectiveness and sustainable competitive advantage. A number of higher education mergers were called off due to incompatibilities, such as in the case of the Salem State University and the Montserrat College of Art (Woodhouse, 2015). Previous literature supported the argument that knowledge creation capability is of utmost importance for organizational performance, productivity and their effective use of their assets (Chung et al., 2014; Davenport and Prusak, 2000; Lee and Choi, 2003).

The study findings highlight that future foresight competence contributes to the merger effectiveness and mediates the relationships between the strategy tripod dimensions and the merger success. The higher education institutions might be proactive in their approach to the industry's changes by acquiring future foresight competencies and trends' forecasting (Choudaha and Rest, 2018). For example, the successful merger of Purdue-Kaplan University depended on future foresight by anticipating the future of online education (Belkin and Korn, 2017; Fain and Seltzer, 2017).

In terms of the collected data, and keeping in mind the challenging criteria of this study's sample, the researcher – with the help of an agency - was able to collect responses from 119 number of participants from the 14 merged higher education institutions in USA and Europe. However, unfortunately, only 107 of these responses were valid and met the criteria properly.

All of the 107 participants are from managerial levels, were part of the higher education institutions at the time of the merger, and were apt to give their input on the effectiveness of the higher education institution during the three years prior to the merger and the three years after the merger. This criterion was the most important to ensure the credibility and reliability of the responses. The 14 higher education institutions came from 6 countries from around the globe: USA, Ireland, Norway, France, Portugal, and Italy. The reason behind this selection was strictly dependent on the period in which the higher education institution merger took place – the criteria was that it should have taken place between 2013 and 2016 only. That is because the dependent variable – merger effectiveness – is reflecting the situation of the higher education institution(s) three years prior to participating in the merger and three years after participating in the merger. This three years' interval is based on the scholarly literature advise as explained in the earlier methodology chapter.

In terms of the general demographics, almost 50% percent of the participants were male and 50% percent were female. All participants had a post graduate education and were mostly above the age of 40 years old. The education level and age seem reasonable since the target participants are managers in the higher education institutions. Out of the 107 valid participants, 77 were from a merger higher education institution that is from the public sector and 30 were from the private sector. This particular study does not analyse the difference between the public and private sectors; however, it is something worth noting for future studies. Future studies could be of a comparative nature to see if there are any variances between the factors influencing higher education mergers in the public sector and in the private sector.

Other than that, in terms of the SPSS and Smart PLS software analysis, the researcher conducted five main steps or tests on the collected data, these are: the assumptions testing, the factor analysis, the reliability test, the regression analysis, and the mediation test. The

researcher also conducted the common bias test to ensure the soundness of the data. It is also worth mentioning that the researcher has ensured that there are no missing data in the dataset by activating the ‘required to answer’ option on each and every question of the survey.

5.1 Assumptions testing

In terms of the SPSS analysis, to start with, the standard assumptions testing was conducted to check for the normality, the linearity, the multi-collinearity, and the homoscedasticity. The normality test checks the normal distribution of the data over a symmetrical and bell curved graph. The normality test is one of the essential assumptions that needs to be satisfied prior to running the regression analysis (Hair et al. 2006). In case there was a significant variation from the normal distribution shape, this would refer to invalid statistical data (Hair et al. 2014). The researcher depended on the histogram graph, the skewness, and the kurtosis values to ensure the normality was satisfied (Appendix 8). According to Newsom (2005), the skewness should be less or equal to 2 and the kurtosis should be less or equal to 3 – these values suggest a normal distribution. Distribution symmetry is expressed by the skewness values. Whereas, the distribution in which scores are clustered together can be expressed by the kurtosis values.

In term of the linearity, the assumption was satisfied as well. This assumption is testing the constructs of the conceptual framework by using the standardized values. The standardized values are calculated via converting the predicted values and errors to Z scores, and their plotted values should not show systematic relationships (Field 2018). Appendix 9 shows the graphs for the same. Other than that, the multicollinearity test was performed to check for any outliers in the dataset. Multicollinearity refers to the condition where two or more variables/predictors in the model are too correlated that they provide redundant information (Hair et al. 2010). This should be prevented in sound databases. The exclusion of multicollinearity is measured by the Variance Inflation Factor (VIF) – this factor should

ideally be below 0.3. This assumption was satisfied as well (Appendix 10). After that, the test for homoscedasticity was performed to check for any outliers in the data. The researcher checked for the outliers by using the Z scores and a scatterplot. There were two outliers, observation number 43 and 67 in the dataset. Once these were removed, all the remaining 105 observations were within the cut off of -3 and 3. Thereby, this assumption was satisfied as well since the final scores were within limits (Appendix 11).

5.2 Factor analysis

Following the assumptions testing, the exploratory factors analysis and confirmatory factory analysis was performed. The purpose of the Exploratory Factor Analysis is to understand the underlying structure of the variables of study; it provides the researcher with sets/groups of highly-correlated variables called factors (Hair et al. 2014). There are two main criterions for a successful Confirmatory Factor Analysis. The first is that the sample size should preferably be above 100, and the second is that the observations should be more than the items (Hair et al. 2014). Both of these criterions were met since the final sample included 105 observations and that is more than the number of total variables. The total number of items in the study were 44 items.

Since the majority of the survey items were pre-validated and taken from high quality scholarly resources, the Exploratory Factor Analysis was very much clean and straightforward. The cut off value for the Confirmatory Factor Analysis was set on 0.45. Loadings that are below 0.45 were completely disregarded. The SPSS test of factor reduction identified six factors; however, one of these factors was a result of a few cross loadings from other factors (Appendix 12). The researchers needed to remove only one problematic item F8 which cleared the main cross loadings and made the Exploratory Factor Analysis identify only five factors. These factors matched the factors of the study's conceptual framework perfectly.

Based on the Exploratory Factor Analysis table (Appendix 13), the final identified factors are: 1) knowledge creation capability, 2) merger effectiveness, 3) future foresight, 4) government support, 5) competitive intensity. The fifth factor – competitive intensity – loaded three out of its four items into one factor. Therefore, the excluded item C1 will be removed from the factors’ computation and regression analysis. The other few remaining cross loadings were ignored because they loaded higher on the correct factor and very much lower on the incorrect one. As shown in the table and scree plot in Appendix 14, the total variance explained by these five factors is 77.82% - which is reasonable for this study.

It is also worth mentioning that the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .921, which is above the commonly recommended value of .6 (Hair et al. 2014). The Bartlett’s test of sphericity was significant (6669.220 with a p value less than .000) which highlights the strong correlations between the variables as well. Also, the measure of sample adequacy value confirmed the degree of intercorrelations among the variables, and the readiness for factor analysis (Hair et al. 2014). These values show the validity of the results and the collected data.

Following the Exploratory Factor Analysis, the Confirmatory Factor Analysis was performed using Smart PLS software. All five identified factors loaded properly without any cross loadings - as shown in the table below – since the cross loadings were cleared previously in the Exploratory Factor Analysis in SPSS.

Table 3: Confirmatory factor analysis using Smart PLS

	Comp	Future	Gov	Know	Effect
C2- Our competitors in the higher education industry respond swiftly to any action or strategic decision that our merged university takes.	0.918				
C3- Almost every day there are new moves and actions that we hear our competitor universities are taking.	0.898				
C4- The level of competition in our higher education industry is fierce.	0.767				
E1- Research output					0.935

E2- University ranking		0.94
E3- Students retention		0.876
E4- Student enrolments		0.873
E5- Quality of teaching		0.707
E6- Quality of academic service		0.705
E7- Sustainable management		0.78
E8- Aligned leadership strategy		0.933
E9- Brand and reputation		0.965
E10- Financial success and tuition revenue		0.918
E11- Return on investment		0.914
E12- Internal and external communication		0.89
E13- Employees' belonging		0.847
E14- Cultural and social activities		0.809
E15- Differentiation in course offerings		0.848
E16- Clarity of direction and policies		0.934
F1- Tests new trends that arise in the higher education industry early	0.815	
F2- Conscious of big trends in society that are related to higher education	0.856	
F3- Goes along when new trends in higher education come	0.894	
F4- Takes advantage of trends that pop up in the higher education industry	0.876	
F5- Considers how higher education trends interact with our organizational systems	0.873	
F6- Focuses on questions that are related to the future of higher education	0.866	
F7- Interested in questions that are related to the future of higher education	0.842	
F9- Quickly adjusts to new situations that happen in the higher education industry	0.809	
F10- Makes things happen when the higher education industry's future demands it	0.812	
G1- The government implemented policies and programmes that have been beneficial to the organization's merger and operations	0.95	
G2- The government has provided our organization with technology information and technical supports during or post our merger	0.957	
G3- The government played a significant role in providing financial supports that was needed for our organizational merger and operations	0.97	
G4- The government helped our organization to obtain the required approvals or licenses for the merger and smooth operations	0.952	
K10- The most valuable ideas seemed to come when employees from the originally merged organizations pooled their efforts together		0.894
K11- Employees believed that, by exchanging and combining ideas, they can create value for the newly merged organization together		0.896

K12- Employees believed that, by pooling their efforts, they can create value for the newly merged organization together	0.868
K1- Employees from the originally merged organizations met frequently to discuss work-related ideas (such as article publications) and new developments with each other	0.861
K2- Employees from the originally merged organizations did not have difficulty getting together to exchange new ideas and developments	0.849
K3- Employees from the originally merged organizations were available to discuss new ideas or developments with each other	0.874
K4- Employees from the originally merged organizations felt free to contact anyone to discuss new ideas or developments	0.831
K5- Employees from the originally merged organizations were proficient at combining and exchanging ideas to solve problems or creating opportunities with each other	0.869
K6- Employees from the originally merged organizations did a good job of sharing their individual ideas with each other - to come up with new ideas, products, or services	0.915
K7- Employees from the originally merged organizations learned to effectively pool their ideas and knowledge together	0.921
K8- Employees from the originally merged organizations often exchanged and combined ideas to find solutions to problems together	0.91
K9- Employees from the originally merged organizations saw benefits from exchanging and combining ideas with one another	0.927

5.3 Reliability and validity test

Following the factor analysis, the researcher checked the reliability and validity of the data. This was measured automatically in Smart PLS by the values of Cronbach's Alpha, composite reliability, average variance extracted (AVE), and discriminant validity. The acceptable reliability value of Cronbach's Alpha is 0.7 and above, the acceptable value of composite reliability is 0.7 and above as well, the acceptable value for the AVE is 0.5 and above, and the discriminant validity should be higher than the correlation value of other factors (Bagozzi & Yin 1988; George & Mallery 2003; Fornell & Larcker 1981; Hair et al. 2006;). These values are reported in Appendix 15.

It is worth mentioning that the Cronbach's alpha is used to measure the internal consistency reliability. That is, it measures how closely are a group of set items in a measurement scale. Also, it is important to note that "validity is concerned with the extent to which an instrument measures what it is intended to measure. Reliability is concerned with the ability of an instrument to measure consistently. It should be noted that the reliability of an instrument is closely associated with its validity. An instrument cannot be valid unless it is reliable. However, the reliability of an instrument does not depend on its validity" (Tavakol & Dennick 2011, p. 53).

On the other hand, composite reliability is used to measure the overall scale reliability, and it is preferred with Confirmatory Factor Analysis. Whereas, Cronbach's alpha is the average measure of internal consistency and item reliability, and it is preferred when Exploratory Factor Analysis is used for factor extraction. In terms of the AVE, similar to the total explained variance in Exploratory Factor Analysis, AVE is the average amount of variance in indicator variables that a construct has managed to explain (IGI Global 2020; Wong 2016). In terms of the discriminant validity, it is "demonstrated by evidence that measures of constructs that theoretically should not be highly related to each other are, in fact, not found to be highly correlated to each other. Practically speaking, discriminant validity coefficients should be noticeably smaller in magnitude than convergent validity coefficients" (Hubley 2014). According to Wong (2013), the values of each AVE should be above 0.5 for the convergent validity to be accepted, and this was satisfied in the dataset as well as shown in the table in Appendix 15.

5.4 Common method bias

The measurement of two or more constructs with the same method could inflate or deflate the estimates between the latent variables. To explain, "the concern is that when the same method is used to measure multiple constructs, this may result in spurious method-

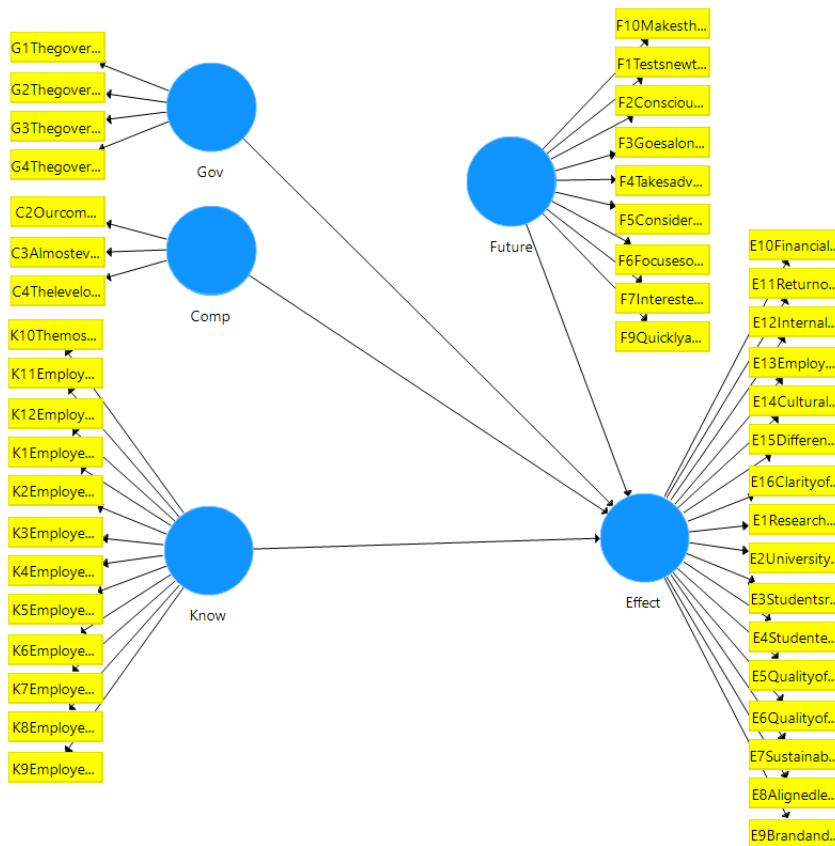
specific variance that can bias observed relationships between the measured constructs” (Schaller, Patil & Malhotra 2015). This bias exists if the research involved only one method of measurement, such as a self-reported questionnaire (Podsakoff, MacKenzie & Podsakoff 2012). In other words, it is advised to use primary and secondary data to control the common method bias. However, in this study, it was not feasible to obtain secondary data due to confidentiality and lack of access to databases that provide such information. Nonetheless, the researcher proactively worked at minimising the risk of common method bias in designing the questionnaire by running it through experts in the field. Thus, the language used was clear and concise, the ambiguity of the items was removed, and the researcher ensured that the questions are understandable by the respondents. In addition, the respondents were from the managerial and strategy level so they were highly experienced practitioners that had the ability to link key terms to relevant concepts, which helps in reducing the presence of common method bias (MacKenzie & Podsakoff 2012). Moreover, the existence of common method bias was measured by Harman’s single factor test. The common method bias exists if only one factor explains the majority of the covariance among the measures during the exploratory factor analysis with unrotated factor solutions (Podsakoff & Organ 1986; Podsakoff, MacKenzie & Podsakoff 2012). A one factor variance of more than 50% indicates common method bias during an exploratory factor analysis with unrotated factor solutions (Fuller et al. 2016). In this study, the highest variance explained when the items were put in a single factor in SPSS was 50.72%. Therefore, since it is at the cut off borderline, the common method bias is unlikely to be a risk in this study.

It is worth noting that while Harman’s single factor test has the benefit of simplicity, it has some weaknesses too. These weaknesses include: “there are no specific guidelines on the amount of variation explained by this factor to determine unequivocally the existence of this variance. The customary heuristic is to set the threshold to 50%”. Also, “the method is

sensitive to the number of variables involved. Large models have a greater chance for multiple common method factors to exist. As the number of variables increases, this technique becomes less conservative”. Additionally, “the sample may be subject to multiple sources of bias but this technique assumes a single source which potentially misrepresents the actual bias(es)” (Eichhorn 2014, p. 4).

Thereby, the researcher used another way to test for the common method bias through the Smart PLS software (Kock 2015). This test depends on the Variance Inflation Factor (VIF). According to Kock (2015), “the occurrence of a VIF greater than 3.3 is proposed as an indication of pathological collinearity, and also as an indication that a model may be contaminated by common method bias. Therefore, if all VIFs resulting from a full collinearity test are equal to or lower than 3.3, the model can be considered free of common method bias” (p. 7). The researcher conducted this VIF test using Smart PLS for each one of the variables of the study as shown below.

1) higher education merger effectiveness



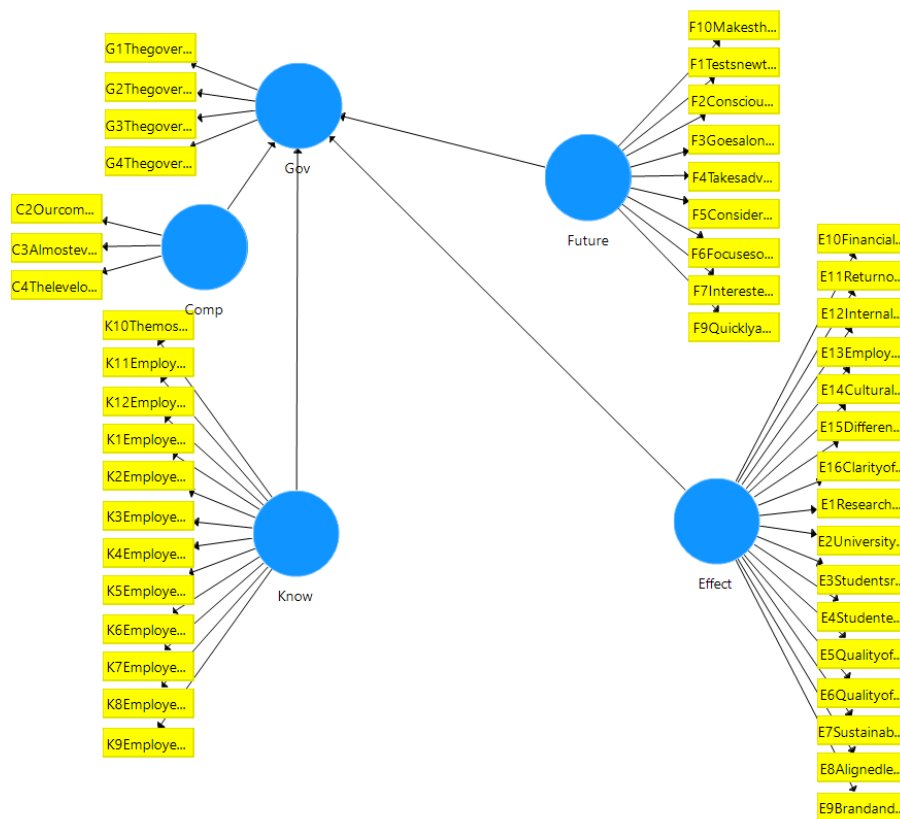
Collinearity Statistics (VIF)

	Outer VIF Values	Inner VIF Values			
	Comp	Effect	Future	Gov	Know
Comp		1.134			
Effect					
Future		1.724			
Gov		2.446			
Know		2.555			

Figure 4: VIF test for merger effectiveness using Smart PLS

Using Smart PLS, to test for the common method bias, the researcher ran the algorithm after pointing all arrows or variables to the higher education merger effectiveness construct or variable. All of the inner VIF values were less than 3.3 which is an indication that the higher education merger effectiveness measurement path is free from common method bias.

2) Government support



Collinearity Statistics (VIF)

Outer VIF Values		Inner VIF Values			
	Comp	Effect	Future	Gov	Know
Comp				1.189	
Effect				3.907	
Future				2.185	
Gov					
Know					2.752

Figure 5: VIF test for government support using Smart PLS

Following the same method, the researcher calculated the VIF for the second variable which is government support. From the above table, we can see that there is one VIF value which is slightly higher than 3.3’s threshold. However, it is still considered a minor deviation and a minor limitation or indication of a minor common method bias. Nonetheless, it is worth mentioning that Kock and Lynn (2012, p. 9) note that a “VIF of 5 could be employed when algorithms that incorporate measurement error are used. Even though they made this remark in reference to covariance-based structural equation modelling algorithms, the remark also

applies to factor-based PLS structural equation modelling algorithms, as both types of algorithms incorporate measurement error”. Thereby, the researcher considers VIF values that are still less than 5 acceptable.

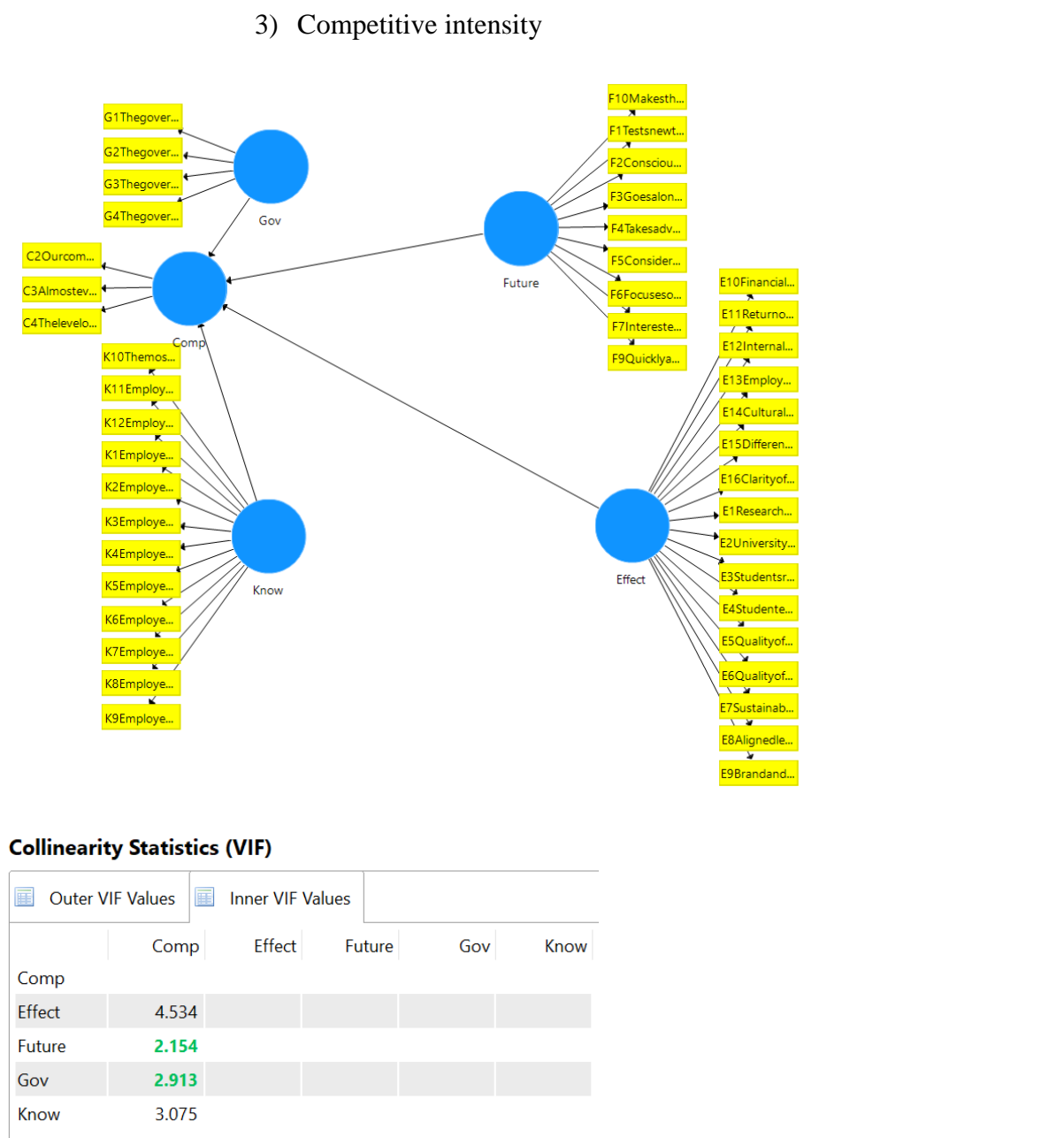
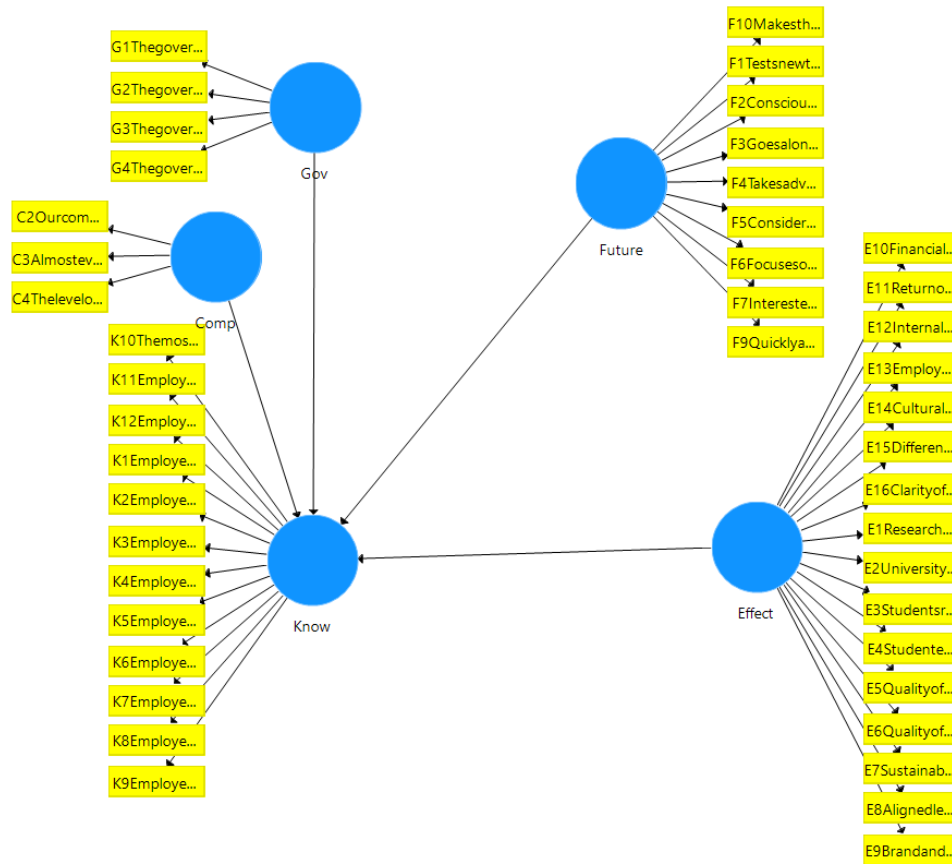


Figure 6: VIF test for competitive intensity using Smart PLS

Following the same method and criterion, the researcher tested the common method bias for the third variable, competitive intensity, and one of the VIF values was above 3.3, but

still less than the threshold of 5. Thereby, the likelihood of having a common method bias is minor here well.

4) Knowledge creation capability



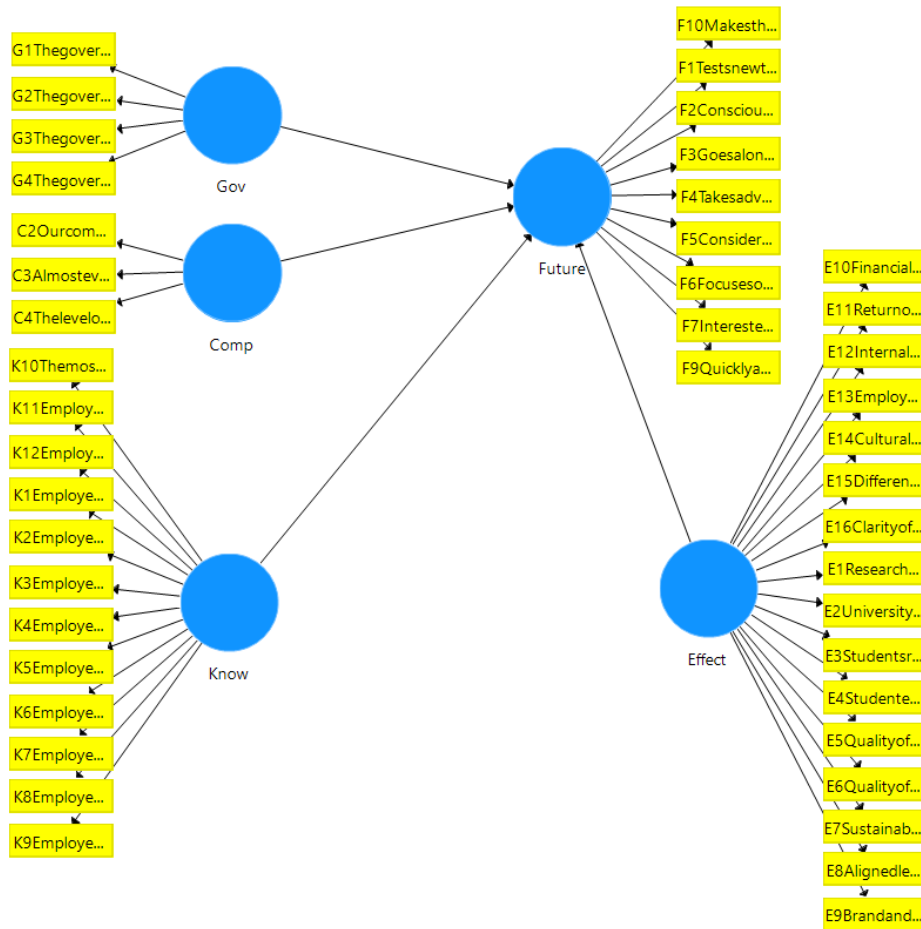
Collinearity Statistics (VIF)

Outer VIF Values		Inner VIF Values			
	Comp	Effect	Future	Gov	Know
Comp					1.154
Effect					3.841
Future					2.198
Gov					2.575
Know					

Figure 7: VIF test for knowledge creation capability using Smart PLS

The VIF values of the fourth variable were all less than 3.3 except one, which was 3.8. However, this is also still less than the threshold of 5 which could be employed in the common method bias test as per Kock and Lynn (2012).

5) Future foresight competency



Collinearity Statistics (VIF)

Outer VIF Values		Inner VIF Values			
	Comp	Effect	Future	Gov	Know
Comp			1.167		
Effect			3.692		
Future					
Gov			2.910		
Know			3.114		

Figure 8: VIF test for future foresight competence using Smart PLS

Similarly, when testing for the last variable, future foresight competency, the researcher found that all the VIF values were less than 3.3 except for one value which was around 3.7. However, as noted earlier, this is still considered a very minor deviation and it is within the threshold of 5 which was alternatively proposed by Kock and Lynn (2012).

5.5 Structural equation modelling

Following the previously mentioned measurement model assessment stage, the structural model assessment stage was commenced. As noted by the researchers (Hulland 1999; Wong 2013), there are two models in an structural equation modelling diagram, the inner model and the outer model (as shown in the below example diagram). While the reliability and validity tests assessed the measurement or outer model. The following structural equation modelling tests will assess the structural model and the significance of the proposed hypotheses. This study proposed seven hypotheses (four direct relationships and three mediations), and all of them turned out to be supported by the collected data under a margin of error of 5% (P value was below 0.05).

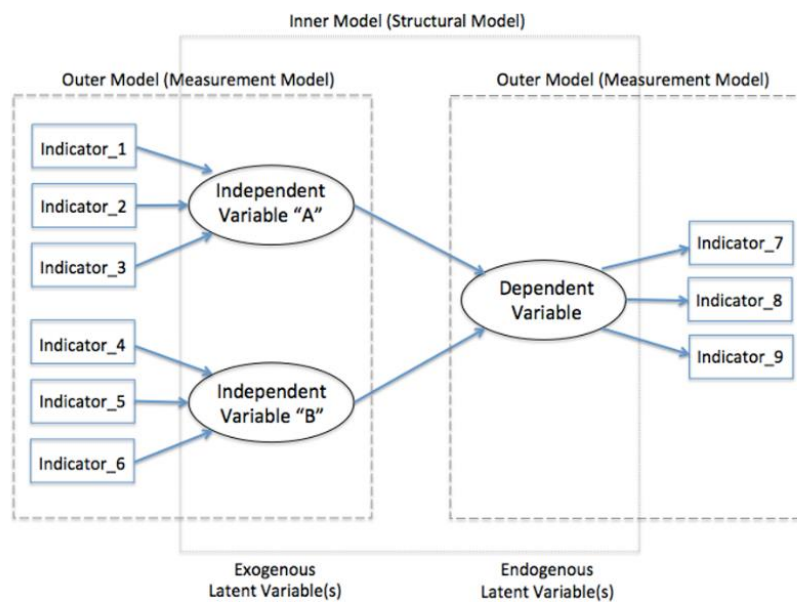


Figure 9: Inner and outer models in a structural equation modelling diagram

The researched imported the coded data from SPSS into Smart PLS to draw the study model there. Afterwards, the researcher ran the analysis to get the statistical readings for the structural equation modelling. Please find the model and the hypotheses analysis readings below in Figures 5 to 8. Further analysis of these will be presented in the findings and discussion chapter.

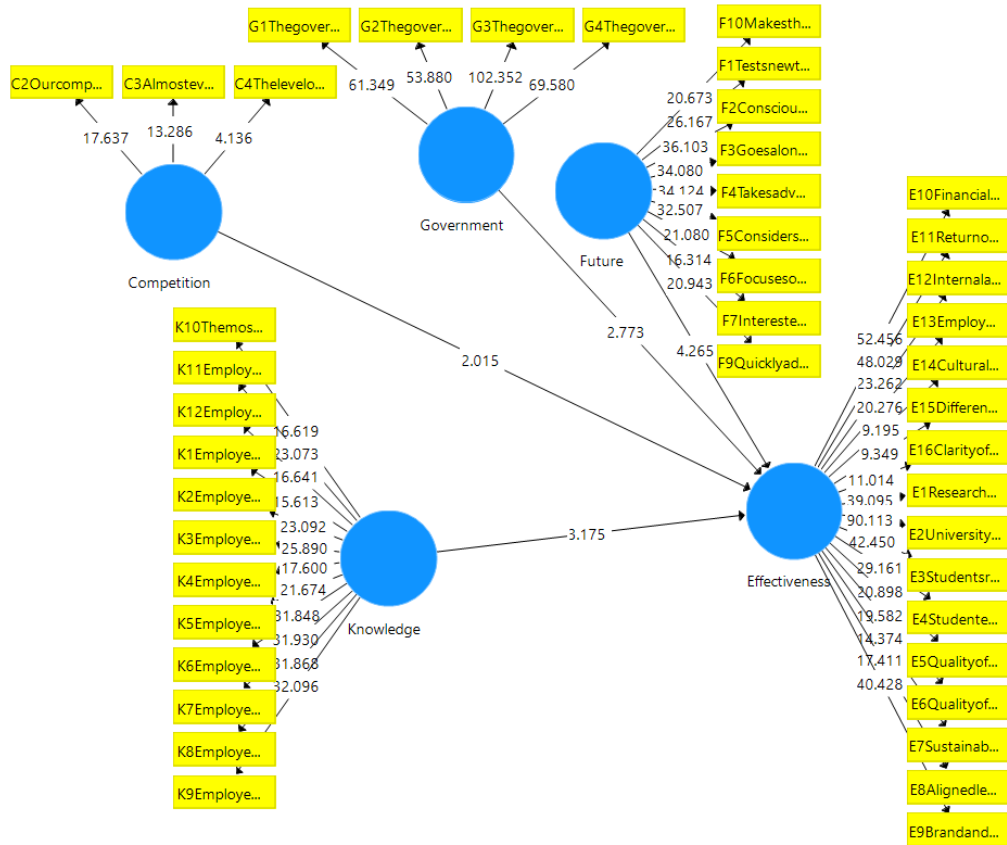


Figure 10: The structural equation modelling testing using Smart PLS

	Original ...	Sample ...	Standàrd ...	T Statistic...	P Values
Competition -> Effectiveness	0.111	0.112	0.055	2.015	0.044
Future -> Effectiveness	0.312	0.295	0.073	4.265	0.000
Knowledge -> Effectiveness	0.340	0.337	0.107	3.175	0.002
Government -> Effectiveness	0.324	0.333	0.117	2.773	0.006

Table 4: Hypotheses testing using Smart PLS

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Comp -> Future -> Effect	0.222	0.225	0.083	2.685	0.008
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Gov -> Future -> Effect	0.240	0.220	0.046	5.189	0.000
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Know -> Future -> Effect	0.239	0.237	0.037	6.452	0.000

Table 5: Mediation testing using Smart PLS

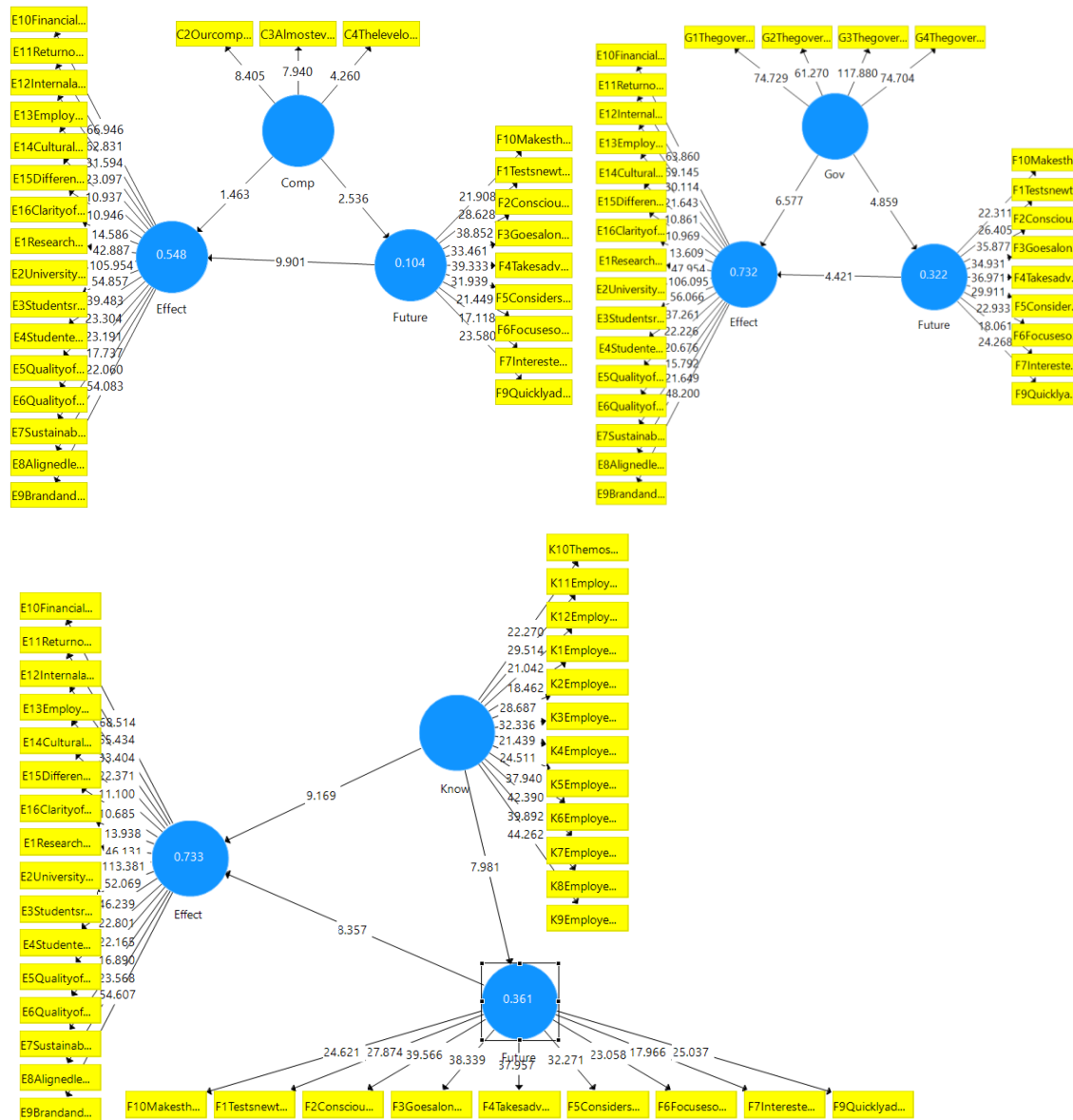


Figure 11: Mediation testing using Smart PLS

	R Square	R Square Adjusted
Effectiveness	0.754	0.744

Table 6: R square value using Smart PLS

5.6 Summary of analysis

Based on the structural equation modelling and R square results, we can conclude that the three strategy tripod factors – government support, competitive intensity and knowledge creation capability - and the future foresight competence factor altogether can predict around 75% of the variation in higher education merger effectiveness. Moreover, based on the mediation testing, we conclude that future foresight competence mediates the relation

between the strategy tripod factors and the higher education merger effectiveness. This means all the below listed seven hypotheses of this study were supported by the data. In addition, especially due to the mediation effect, these results are also in support of the notion of the creation of a Strategy Quadpod. A Strategy Quadpod is to include future foresight as a fourth and independent leg to the strategy tripod.

Table 7: List of the seven supported hypotheses

Supported	H1: Government support significantly influences merger effectiveness.
Supported	H2: Competitive intensity significantly influences merger effectiveness.
Supported	H3: Knowledge creation capability significantly influences merger effectiveness.
Supported	H4: Future foresight competence significantly influences merger effectiveness.
Supported	H4a Future foresight competence positively mediates the relationship between government support and merger effectiveness.
Supported	H4b Future foresight competence positively mediates the relationship between competitive intensity and merger effectiveness.
Supported	H4c Future foresight competence positively mediates the relationship between knowledge creation capability and merger effectiveness.

5.7 Conclusion

This chapter represented the analysis of the collected data from the study's questionnaire. Out of 119 participants, 107 valid responses (including 2 outliers) were from 14 merged higher education institutions that came from 6 countries from around the globe: USA, Ireland, Norway, France, Portugal, and Italy. In SPSS, the standard assumptions testing was conducted to check for the normality, the linearity, the multi-collinearity, and the homoscedasticity. Following the assumptions testing, the exploratory factors analysis, confirmatory factory analysis, and reliability tests were performed. All of these analysis and tests were satisfactory. The total variance explained by these five factors is 77.82% - which is reasonable for this study. Afterwards, data was imported from SPSS into Smart PLS to draw the study's structural equation modelling model. The structural equation modelling results were in line with the reviewed literature where the researcher have used the theoretical underpinning of the strategy tripod framework to explain the outcome of mergers in the higher education industry. The researcher had identified one factor - which was deemed to be the most influential among others – and tested its impact on merger effectiveness. The results supported all of the proposed hypotheses of this study, which are:

1. Government support significantly influences merger effectiveness.
2. Competitive intensity significantly influences merger effectiveness.
3. Knowledge creation capability significantly influences merger effectiveness.
4. Future foresight competence significantly influences merger effectiveness.
 - Future foresight competence positively mediates the relationship between government support and merger effectiveness.
 - Future foresight competence positively mediates the relationship between competitive intensity and merger effectiveness.
 - Future foresight competence positively mediates the relationship between knowledge creation capability and merger effectiveness.

To further dissect these findings, the researcher will take each perspective or hypothesis and discuss it individually in the following chapter.

6.0 Chapter Six: Findings and discussion

This study aimed at applying the theoretical framework of the strategy tripod – which combines three strategy perspectives - onto the strategic decision of mergers in the higher education industry. Moreover, the study argued that the future foresight competence plays a significant role in explaining the relationship between the strategy tripod factors and the higher education merger effectiveness, as a mediator. This argument was hypothesized and tested by identifying one main factor from each one of the strategy tripod perspectives (ie the institution-based view, the industry-based view, and the resource-based view) then checking its significant relationship with the higher education merger effectiveness, once alone and once with the mediation effect of the future foresight competence. The results of these tests showed that the strategy tripod factors significantly influence the higher education merger effectiveness and the future foresight competence partially mediates this relationship. In other words, all of the seven hypotheses of this study were supported. In the following sections, each hypothesis will be discussed by synthesizing the results with the reviewed literature.

6.1 Government support

In the earlier literature review, as part of the institution-based view, the researcher had identified government support as the most relevant factor in terms of higher education merger effectiveness. This factor was loading to be measured by four items in the data analysis. These items pertained to: 1) policies, 2) technological support, 3) financial support, and 4) licenses. The collected data supported the developed hypothesis that government support significantly influences merger effectiveness. In other words, the results matched the pieces of evidence that were gathered from the reviewed literature. For instance, as noted by Cui, Jiang and Stening (2011), governmental pressures can have a significant impact on the effectiveness of strategic decisions of businesses. That is, when there are obstacles or challenges created by the government against the merger decision of the higher education

institution, or any other strategic decision in businesses, the effectiveness of that decision gets negatively affected.

On the other hand, scholars such as Daquila and Haung (2013) have emphasized the importance of governmental support for the achievement of strategic plans. This means that it is vital for the success of strategic plans or strategic decisions, such as higher education mergers, to have some support from the government. This support could be translated through financial support or licensing services or other matters. Moreover, scholars, such as Su, Peng and Xie (2015), have supported similar arguments as well. They have stressed that ineffective governmental laws can hinder strategic activities. In other words, dysfunctional policies and procedures that are imposed by the government on higher education institutions could very much negatively affect their strategic decisions, such as merger decisions. Therefore, these scholarly arguments, along with the results of their application on higher education mergers in this study, conclude that government support is very important for effective higher education mergers.

This result can be clearly modelled in the example of the South African universities' mergers that were led by the government in the 1990s (Hall, Symes & Thierry 2004; Ngcamu 2017). Although the conditions at that time were mostly indicative of a failed merger, the merger of the Durban Institute of Technology was successful and its success was mainly credited to the governmental support that it had (Ngcamu 2017). That is, the merger was initiated by a decree from the government and led by them as well. It was part of a reform movement by the government. Being backed up by the government strengthened the legitimacy of these mergers and played an essential role in their success.

On the other hand, the merger of the academic health centres of Stanford University and University of California in San Francisco resulted in a demerger because of the technological and financial challenges they faced – that were not anticipated nor supported by the

government (Kitchener 2002). To explain, this merger sank due to a load of financial burden that they were not able to relief. If they had some financial support from the government things might have turned out differently. Therefore, having the right policies in places, along with providing the higher education institutions with the technological, financial, and licensing support can go a long way in ensuring the effectiveness of a merger.

In addition, it is worth mentioning that government support is considered an important factor within the institutional isomorphisms and logics (DiMaggio & Powell 1983; Hawley 1968; Hotho 2009; Scott 1987). It is considered an external force that can be a driver for change – just like in the example of the South African higher education institutions’ reform/change. Thereby, securing this force and having this support plays a significant role in the higher education merger effectiveness. This is reflected in hypothesis 1: Government support significantly influences merger effectiveness.

6.2 Competitive intensity

In the earlier literature review, as part of the industry-based view, the researcher had identified the industry’s competitive intensity as the most relevant factor when it comes to higher education merger effectiveness. This factor was measured by three items based on the factor loadings. These items pertained to: 1) competitors’ swift response, 2) competitors’ new moves, and 3) the level of rivalry in the industry. According to the reviewed literature, it was evident that the various trends that the higher education industry went through were pushing the higher education institutions towards strengthening their competitive advantage (Boling, Mayo & Helms 2017; Hammond 2016; Harris 2018; Helms & Nixon 2010; Porter 1979). It was also noted that higher education institutions were choosing to form strategic alliances or mergers with each other to strengthen or sustain their competitiveness, such as in the cases of Anne University and Cranfield School of Management (Exter, Grayson & Maher 2013; The Hindu 2012; The Times of India 2012). Therefore, the researcher argued that the higher the

level of competition, the better the higher education institution's merger effectiveness. This argument and hypothesis were statistically supported by the collected data and analysis results. To explain, in simple words, this result makes sense because higher education institutions would thrive to work harder when there is an intensive competition that they need to face and beat. This is reflected in hypothesis 2: Competitive intensity significantly influences merger effectiveness.

6.3 Knowledge creation capability

In the earlier literature review, as part of the resource-based view, the researcher had identified that the knowledge creation capability is the most relevant resource when it comes to higher education merger effectiveness. This factor could be measured by the following main items: 1) the level of knowledge integration between the higher education institutions, 2) the level of collaborative efforts in idea generation between the higher education institutions, 3) the frequency of collegial work between the higher education institutions, 4) the ease of organizational learning and sharing between the higher education institutions, and 5) the level of value creation and problem solving between the higher education institutions. Securing the capability of sharing ideas and working together between the higher education institutions that are participating in the merger plays a prerequisite role in predicting the effectiveness of the merger.

Besides, choosing the right fit which is compatible is very important for having a well-functioning knowledge creation capability in the merged higher education institution. In fact, as noted earlier, a number of higher education mergers were called off due to these incompatibilities, such as in the case of the Salem State University and the Montserrat College of Art (Woodhouse 2015). In other words, the higher education institutions need to be compatible enough to build a strong knowledge creation capability for their sustainable competitive advantage. The results of this study supported this notion as well by stressing on

the importance of the cohesiveness, complementarity, and compatibility of the merged higher education institutions and how this significantly impacts its effectiveness.

Moreover, various scholars have also supported the argument that knowledge creation is of utmost importance for organizational performance (Chung et al. 2014; Lee & Choi 2003; Davenport & Prusak (2000)). For example, according to Chung et al. (2014), an institutions values and performance is not only determined by its assets but by its knowledge creation capability. There will be no use of the merged assets if the newly-formed higher education institution couldn't create knowledge from these assets. In addition, according to Lee and Choi (2003), the knowledge creation capability has a positive influence on an institution's performance. Furthermore, Davenport and Prusak (2000) have also reported that when institutions focus on their knowledge creation capability this improves their productivity. Thereby, all of these arguments are in sync with what is reflected in hypothesis 3: Knowledge creation capability significantly influences merger effectiveness.

6.4 Future foresight competence

As argued by the researcher, the future foresight competence, as an independent factor, plays a significant role in predicting the effectiveness of higher education mergers. Further, as a mediator, it has a partial mediation effect on the strategy tripod factors in predicting the higher education merger effectiveness. Based on the literature and the study's operationalization, this factor can be measured by the following items: 1) Anticipates the new trends in the higher education industry, 2) tests the new trends, 3) follows the new trends, 4) prepares for the future demands, and 5) quickly responds to industry changes. These items, along with the result of the tested hypotheses, confirmed the researcher's argument that it is not sufficient to just have a *reactive* approach to the higher education industry trends, it is important to have a *proactive* approach as well. That is, instead of just waiting for the future to unfold and respond to it accordingly, higher education institutions need to be able to

predict the future through setting some scenarios of industry trends. This notion is also supported by the report of the United Arab Emirates Ministry of Cabinet Affairs and the Future (2017) and OECD (2009). Other scholars, such as Choudaha & Rest (2018), have also emphasized the importance of future foresight and trends' forecasting. In addition, an example for a successful merger that highly depended on future foresight is the case of Purdue-Kaplan University where they anticipated the future of online education and collaborated for the same reason (Belkin & Korn 2017; Fain & Seltzer 2017; Purdue University 2017). Thereby, higher education institutions need to have an outlook for the future and take merger decisions accordingly. Furthermore, the results of the study supported the researcher's argument that future foresight would support the other strategy tripod factors in explaining the effectiveness of higher education mergers. Hence, future foresight plays a role in predicting the effectiveness of higher education mergers, independently and as a mediator. This is reflected in hypotheses 4 to 7:

Future foresight competence significantly influences merger effectiveness.

Future foresight competence positively mediates the relationship between government support and merger effectiveness.

Future foresight competence positively mediates the relationship between competitive intensity and merger effectiveness.

Future foresight competence positively mediates the relationship between knowledge creation capability and merger effectiveness.

6.5 Conclusion

To conclude, the researcher acknowledges the importance of the strategy tripod factors (government support, competitive intensity, and knowledge creation capability) in predicting the higher education merger effectiveness. Government support can be measured through the: 1) policies, 2) technological support, 3) financial support, and 4) licenses. Competitive

intensity can be measured through: 1) competitors' swift response, 2) competitors' new moves, and 3) the level of rivalry in the industry. The knowledge creation capability can be measured through: 1) the level of knowledge integration between the higher education institutions, 2) the level of collaborative efforts in idea generation between the higher education institutions, 3) the frequency of collegial work between the higher education institutions, 4) the ease of organizational learning and sharing between the higher education institutions, and 5) the level of value creation and problem solving between the higher education institutions. However, the researcher has statistically proved that future foresight mediates this relationship as well. The future foresight competency can be measured through how the higher education institution: 1) Anticipates the new trends in the higher education industry, 2) tests the new trends, 3) follows the new trends, 4) prepares for the future demands, and 5) quickly responds to industry changes. Thereby, for better results and sustainable higher education merger effectiveness, it is recommended that decision makers and managers strongly invest in their future foresight competence as it influences the merger's long-term effectiveness significantly. These results will feed into the theoretical contribution of this study and build the practical recommendations as well – which are going to be presented in the next and last chapter of this study.

7.0 Chapter Seven: Recommendations, limitations and future research

In this last chapter, the researcher is going to present the final recommendations of this study. These recommendations will be of two parts; the contribution to knowledge and the practical implications. There are two main contributions to knowledge that will be presented. One is the strategy quadpod for higher education institutions, and one is the development of the scale items to measure the effectiveness of mergers in the higher education industry. In terms of the practical implications, the researcher will provide five main pieces of best practices to be followed by the managers and leaders when going for a merger, whether that is in the higher education industry or other industries. Other than that, the researcher is going to highlight the limitations that were faced during the course of this study, along with the opportunities for future studies. The main limitations were faced during the data collection phase. This section will also be concluded with a summary of the overall study.

7.1 Contribution to knowledge

Based on the aforementioned results and discussion in chapters 5 and 6 of this study, the researcher recommends an intensive acknowledgement of the role of future foresight competency in making significantly effective strategic decisions, including merger decisions in the higher education industry. The researcher also acknowledges the importance of government support, competitive intensity, and knowledge creation capability in predicting higher education merger effectiveness – as part of the strategy tripod framework. However, the researcher strongly recommends adding future foresight as a fourth leg to the strategy tripod framework, making it a Strategy Quadpod. This recommendation is primarily based on the mediation testing result that showed a partial mediating role in explaining the effectiveness of mergers among higher education institutions. This is the researcher's significant contribution to knowledge as per this study. Please find below the two frameworks that were developed by the researcher for the Strategy Quadpod.

Figure 12: Strategy Quadpod

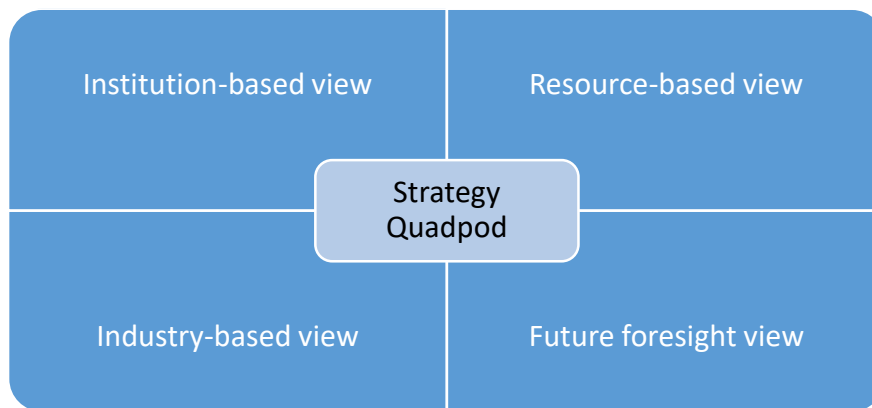
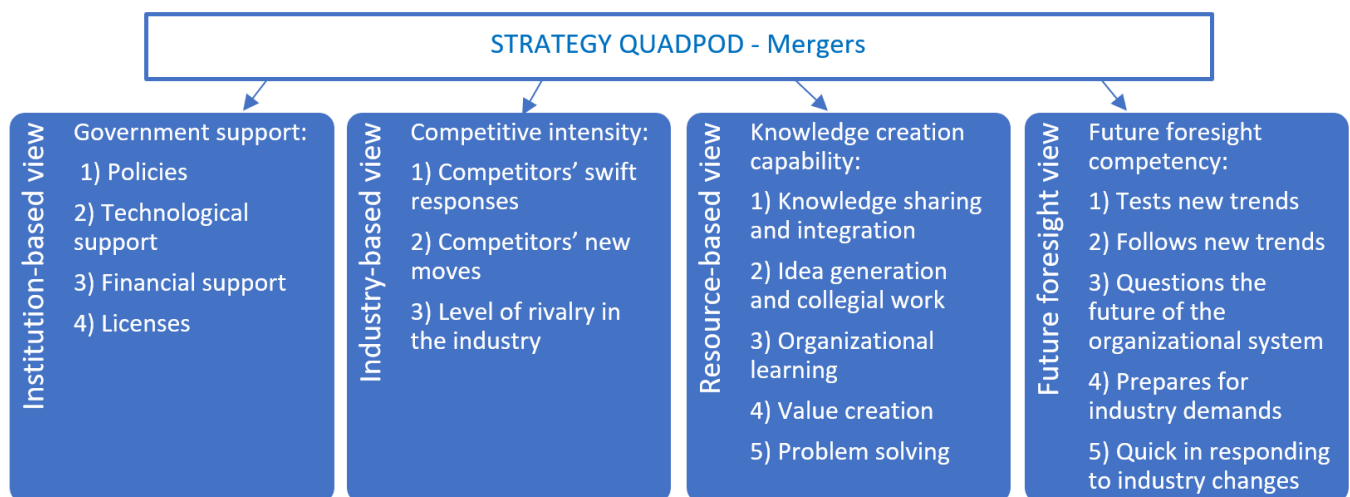


Figure 13: Strategy Quadpod in higher education



The above shown framework summarizes the contribution to knowledge; it highlights and explains the four supported hypotheses of this study. In other words, it dissects the sub-factors under each one of the four constructs of the study, under each one of the strategic ‘legs’ of the quadpod. To start with, this study concluded that – under the institutional-based view – government support is of utmost importance to the effectiveness of the merger higher education institution. That is, having the right policies in place that drive the strategic move of merging two or more higher education institutions is important for its smooth operation and effective performance. Also, backing up the merged higher education institution with financial and technical support strengthens the operations and effectivity of the merged

higher education institution as well. In addition, simplifying and removing the bureaucratic procedures for higher education licensing also helps in empowering the merged higher education institution and its effectiveness.

In addition, in terms of the industry-based view, the researcher concluded that having the right competition in place works wonders for the merged higher education institution. That is because it is expected that the merged higher education institution will work more effectively and put more efforts in achieving their goals and maintaining high standards when they are faced with positive competition levels. In other words, when the competitors in the higher education industry are swift in their actions, innovative in their moves, and of a healthy intensity, the newly merged higher education institution thrives better and is more effective.

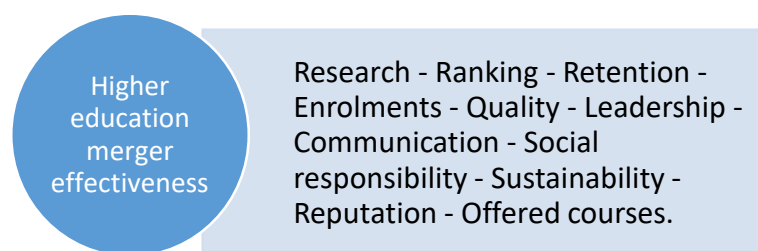
On the other hand, when it comes to the resource-based view, the researcher found that the knowledge creation capability significantly influences the effectiveness of the merged higher education institution. The higher education merger effectiveness' indicators are almost all related to the co-creation of value between the merged higher education institutions. Thereby, the knowledge creation capability of the teams coming from the merged higher education institutions is vital for its effectiveness. The teams need to be able to work together, share knowledge, generate ideas, collaborate for collegial output, learn from each other, create value, and solve problems together. The researcher concluded that these elements play a significant role in building and sustaining the higher education merger effectiveness.

Nonetheless, in addition to the above three strategy tripod perspectives, the researcher concluded that the future foresight competency significantly influences the effectiveness of the merged higher education institution as well. future foresight competency does not influence the higher education merger effectiveness independently only, but also as a mediator to the other strategy tripod factors. In other words, future foresight competency

explains the higher education merger effectiveness as a stand-alone factor and as a supporting factor to the above-mentioned strategy tripod factors. That is, the merged higher education institutions needs to always have a future foresight and build its competencies and capabilities around it. To be effective, the merged higher education institutions needs to keep an eye for new trends, tests them, follows them, prepares for them, and responds to them swiftly.

Furthermore, another contribution to knowledge that was added by the researcher from this study is the development of the scale items to measure the effectiveness of mergers in the higher education industry. That is, from the literature review, the researcher came up with a list of factors that could be subjectively used to measure higher education merger effectiveness. The rationale behind the subjectivity and the selection of these items was discussed earlier in the methodology chapter of this study. Nevertheless, the list is shown using the keywords in a summarized manner in the below figure. Ideally, the leadership and management teams of the higher education institutions that are participating in the merger should aim at elevating their levels of performance in these factors in their post-merger phase to be considered an effective merger.

Figure 14: Higher education merger effectiveness



As noted in the above figure, higher education merger effectiveness can be measured by various elements – compared between the pre-merger and post-merger stages. higher education mergers are considered effective when the research output and quality is improved post-merger. This can be measured by the number of high-quality publications that the

academic personnel produce in the newly-formed higher education institution. In addition, when the merged higher education institution secures higher university rankings than before, it is most likely to be considered an effective one. Also, increased retention and enrolment rates are a sign of higher education merger effectiveness, especially when these rates are higher than the rates previously noted by the higher education institutions before the merger. Improved academic quality and variety of the offered courses in the merged higher education institution is an indication of its effectiveness as well. This improvement of quality could be measured by the accreditations that the merged higher education institution receives for these particular courses. Moreover, another sign of the effectiveness of the merged higher education institution is its sustainability and role in social responsibility. When the merged higher education institution can sustain its status and performance for longer terms, this indicates its effectiveness. Additionally, when the merged higher education institution initiates and participates in social responsibility activities, this usually indicates its sound performance and effectiveness.

Furthermore, one of the most important indicators of higher education merger effectiveness is the improvement in leadership and communication. When two or more higher education institutions come together and join forces in a merger, it is crucial for the managerial teams to work together collaboratively and smoothly in a unified manner. In addition, the communication systems and channels need to be placed and established in a proactive way in the newly-formed higher education institution. This is particularly important to control any change resistance, fears, or rumours that may accompany the higher education merger. Staff assurance comes from a clear direction and a two-way communication in the higher education institution. Last but not the least, one of the indicators of an effective higher education institution is how positive is their reputation. Thereby, merged higher education

institutions need to be careful about the word-of-mouth about their institution and sensitively listen to what goes around since it could be an indicative sign.

7.2 Practical implications

Other than that, based on the literature review and the individual items tested under the strategy tripod perspective, the researcher recommends the below list of best practices to be followed by practitioners and decision makers while going for a merger in the higher education industry or others.

- Transparency of direction: It is important that decision makers give a clear and transparent image of their plans and actions to their respective institutions and employees. This transparency enables building trust among the employees and the management, and it will most probably create a support system for the intended strategic decision. That is because when the employees and personnel are aware of the changes that are coming about and the benefits, they are more likely to be comfortable with that decision and support it. In addition, it will minimize any chances of spreading negative rumours or noise. Rumours create an environment of fear and resistance usually. To explain, rumours make people doubtful about the outcome of the intended decisions, and in turn they might reject it. Furthermore, a strategic leadership team that collaborates well between the merging higher education institutions is key for an effective and cohesive transitional direction. In other words, the transparency should not only be limited to the individual higher education institutions that are about to merge, but it should extend to the newly-merger higher education institution as well.
- Clear and proactive communication: One of the key elements that was highlighted for an effective merger management was having good levels of communication across the higher education institutions that are participating in the merger. Communication is

the instrument via which institutions get organized and lead towards a certain direction. Having a proactive, two-way, communication is vital for the smooth transitional period of the higher education merger. The staff and personnel need to be informed well about the change and the steps that are being taken within the higher education merger process. There should be sufficient channels of communication available for the staff and personnel to voice their concerns and communication upward and downward in the higher education institution. In addition, the management should make an effort into listening to the suggestions and ideas of their employees in terms of the merger – especially through the integration and transitional phase. To explain, this is important because the integration and transition phase requires synergy and input from everyone to make it as effective as possible. In other words, the engagement and commitment of various stakeholders and members is highly recommended during the initial phases of the merger until everything settles down. The first few years are said to be the most sensitive and crucial for the newly-formed merger higher education institution's stability.

- The right fit: It is highly recommended that higher education institutions choose an institution that provides them with complimentary programmes and inter-related disciplines. Complimentary programmes and various disciplines will enhance both the educational and the research outcomes of the higher education institutions post-merger. For instance, there are innovative programmes getting developed across the globe now to match the demands and needs of the present and future. Business and information technology programmes, education and psychology programmes, sustainability and architectural programmes are examples. Thereby, one of the elements that the decision makers and practitioners need to look for when deciding on a merger is to assess the academic curriculums and offered programmes/courses.

- Government support: Having the right policies in place that support higher education mergers is considered one of the key factors that determine the effectiveness of a higher education merger. In fact, this was the most repeated factor that was mentioned by the participants. Having the support and empowerment from the government can go along way when it comes to higher education mergers. That is specifically because there are lots of processes, approvals, licenses, and else that need to be taken care of when any merger takes place – and the same is with the higher education mergers. Also, one of the having government’s financial support can create a backup layer for the higher education institution that protects it from draining or sinking itself financially. Thereby, it is advised that decision makers and practitioners try and secure as much government support as possible prior to venturing into any merger. Or, at least, the decision makers need to have scanned the government resources and support available to them properly before going for the merger – to know what would they have and what would they need to face (in terms of the government’s side).
- Future foresight: It is important that higher education institutions put in place the right instruments and teams to monitor the future trends in the industry and act accordingly. The institutional agility is key in having an institute that adjusts to the sudden changes in the industry and does not stay static. This was repeatedly mentioned by the survey participants as well. Moreover, higher education institution should anticipate and test new trends in the industry, rather than just respond or react to them when they come about. In other words, it should not only respond to trends but also set them when needed or when possible. In order to be pioneers in the higher education industry and take effective merger decisions, they need to have a far sight outlook into the future of higher education and act accordingly. Furthermore, future foresight should be imbedded into all the layers, departments, and sections of the higher education

institution. It should not be exclusively for the strategic directions only, but rather a style-of-operating throughout the higher education institution. To explain, as per the results of the mediation of future foresight, it is recommended to include it in all the processes and operations of the merged higher education institution.

7.3 Limitations

The primary limitation or constraining factor that the researcher faced was during the data collection phase. It was quite challenging to reach the target sample for this study since it was based on a number of specific criterion factors. For instance, the participants had to be from higher education institutions that went through a merger from the years 2013 and 2016 specifically. They had to be part of the higher education institutions at the time of the merger, and they had to be from the managerial levels. These specifications made it difficult to reach a very large number of participants. In addition, the study's data collection phase coincided with the exact period of the COVID-19 lockdown worldwide, which had an impact on the ease of the process as well. In addition, the initial identification of higher education mergers that took place during the specified time frame was a challenge, and it made the study focused on USA and Europe only. Moreover, the study could not follow the simple random sampling method for the main reason that a sampling frame could not be unambiguously identified and therefore this created a limitation.

In addition, the items that were identified to measure the higher education mergers' effectiveness could have been influenced by factors other than the merger itself. In other words, the effectiveness of the higher education institutions could have been improved due to other reasons as well, and not necessarily due to the merger only. For instance, the higher education industry as whole could have been improving or declining during the studied period which could have influenced the effectiveness of the higher education institutions naturally. Nonetheless, the identified items in this study certainly measure the effectiveness

of the higher education mergers. However, they can also be used to measure the effectiveness of higher education institutions that have not participated in a merger. This limitation can set the scene for future studies that investigate the effectiveness of higher education institutions – whether the ones that have participated in a merger or that have not participated in a merger.

7.4 Future studies

As per the researcher's knowledge, this study was the first of its kind to apply the strategy tripod framework with future foresight on mergers in the higher education industry. However, the researcher recommends that scholars replicate the same study, using the novel Strategy Quadpod framework, on other industries and other strategic decisions. In addition, other scholars could look into other strategy tripod factors and re-test the mediation effect of future foresight to re-validate the Strategy Quadpod argument. This could be done for the higher education industry, as a double check, and for other industries as well. Also, other decisions – other than mergers – could also be tested using the same method to re-check the results of the direct significance of the factors and the future foresight mediation effect.

Furthermore, other mediators and/or moderators could also be tested along with the strategy tripod factors. For instance, the technological convergence level, the cultural distance, the legal distance, and/or the environment turbulence could be used as well. Researchers could include multiple factors in one study as well, instead of using one factor like similar to this study. Also, scholars could take into account different regions, cultures, or sectors in their future studies to highlight any variations or distinctions between them. This study was focused on the West, USA and Europe, so future studies could replicate the study in the East. Future studies could also be of a comparative nature to compare and contrast between regions and cultures – also between industries and strategic decisions.

In addition, future studies could look into using other types of methodologies as well, such as qualitative or case studies. The researcher in this study identified the research

constructs from the literature review and they had pre-validated measurement scales. However, for future studies, researchers could take singular merged higher education institutions and dig deeper into their dynamics to answer similar research questions. This could result in a further identification and exploration of novel factors that were not highlighted in the previous literature review. For instance, this study's significant finding was the future foresight impact and mediation effect – which built the strategy quadpod – future exploratory studies might be able to find other factors as well and extend the theory here.

7.5 Conclusion

To summarize, this study applied the theoretical framework of the strategy tripod and the future foresight on the strategic decision of mergers in the higher education industry. The number of mergers has been increasing while the rate of their failures has been quite high as well. Therefore, to address this problem and gap in the literature, the researcher developed this study. The researcher identified one factor from each one of the three perspectives of the strategy tripod and argued that it is a prerequisite to the effectiveness of higher education mergers. In addition, the researcher highlighted the importance of future foresight in predicting the effectiveness of higher education mergers, as an independent factor and as a mediator to the strategy tripod factors. The researcher developed a total of seven hypotheses that were all supported by the collected data and analysed results.

Based on the hypotheses testing results, the researcher contributed to knowledge by proving that future foresight partially mediates the relationship between the strategy tripod factors and higher education merger effectiveness. Thereby, the researcher emphasized the argument of adding the future foresight to the strategy tripod framework and creating a Strategy Quadpod. In addition, based on the Strategy Quadpod, the researcher developed a framework and an analytical tool that included the antecedents for merger effectiveness in the higher education industry. Nonetheless, the Strategy Quadpod and the developed frameworks

could be applied on other strategic decision and industries as well. Furthermore, the researcher presented a list of recommendations that are vital for the practical implications of this study – derived from the literature and the collected data. These recommendations included: Transparency of direction, clear and proactive communication, the right fit, government support, future foresight.

The researcher faced some challenges in reaching a large sample size, but reached a sufficient amount ultimately. It was quite challenging to reach the target sample for this study since it was based on a number of specific criterion factors. For instance, the participants had to be from higher education institutions that went through a merger from the years 2013 and 2016 specifically. They had to be part of the higher education institutions at the time of the merger, and they had to be from the managerial levels. The study's data collection phase coincided with the exact period of the COVID-19 lockdown worldwide.

For future studies, the researcher recommends replicating the study using different strategy tripod factors, or performing it on different decisions, sectors, industries, and regions. Scholars can replicate the same study, using the novel Strategy Quadpod framework, on other industries and other strategic decisions. Scholars could look into other strategy tripod factors and re-test the mediation effect of future foresight to re-validate the Strategy Quadpod argument. Scholars could take into account different regions, cultures, or sectors in their future studies to highlight any variations or distinctions between them.

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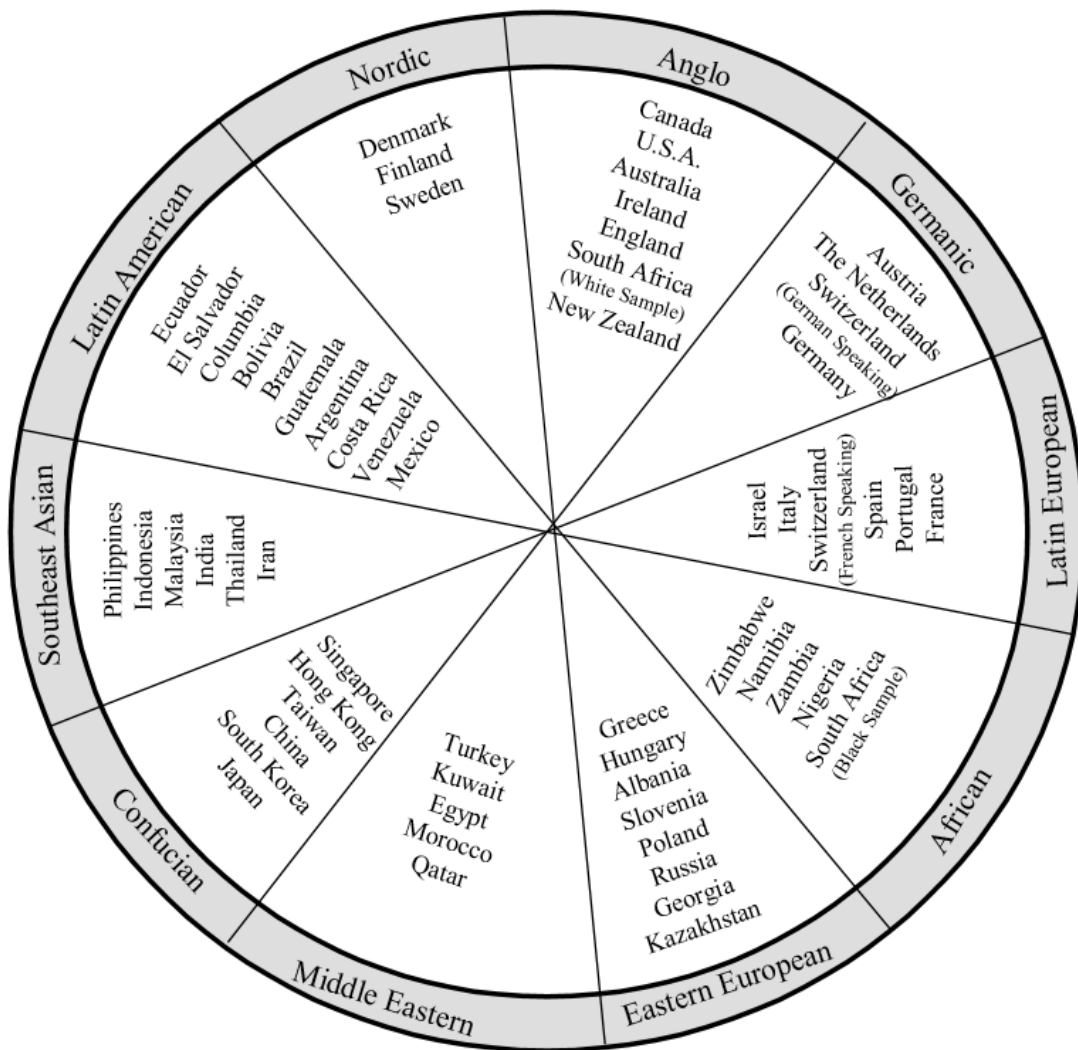
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Appendix 1 - House et al. (2004) GLOBE's cultural dimensions:

<http://www.inspireimagineinnovate.com/pdf/globesummary-by-michael-h-hoppe.pdf>

<u>Power Distance:</u>	<i>The degree to which members of a collective expect power to be distributed equally.</i>
<u>Uncertainty Avoidance:</u>	<i>The extent to which a society, organization, or group relies on social norms, rules, and procedures to alleviate unpredictability of future events.</i>
<u>Humane Orientation:</u>	<i>The degree to which a collective encourages and rewards individuals for being fair, altruistic, generous, caring, and kind to others.</i>
<u>Collectivism I: (Institutional)</u>	<i>The degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action.</i>
<u>Collectivism II: (In-Group)</u>	<i>The degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families.</i>
<u>Assertiveness:</u>	<i>The degree to which individuals are assertive, confrontational, and aggressive in their relationships with others.</i>
<u>Gender Egalitarianism:</u>	<i>The degree to which a collective minimizes gender inequality.</i>
<u>Future Orientation:</u>	<i>The extent to which individuals engage in future-oriented behaviors such as delaying gratification, planning, and investing in the future.</i>
<u>Performance Orientation:</u>	<i>The degree to which a collective encourages and rewards group members for performance improvement and excellence.</i>

Appendix 2 - Cultural clusters of countries based on the GLOBE (2004) study:



Appendix 3 - Hofstede's (1982) cultural dimensions

Cultural dimensions: Hofstede

Cultural dimensions	Scale anchors	
<i>Power distance:</i> Beliefs about the appropriate distribution of power in society.	Low power distance: Belief that effective leaders do not need to have substantial amounts of power compared to their subordinates.	High power distance: Belief that people in positions of authority should have considerable power compared to their subordinates.
<i>Uncertainty avoidance:</i> Degree of uncertainty that can be tolerated and its impact on rule making.	Low uncertainty avoidance: Tolerance for ambiguity; little need for rules to constrain uncertainty.	High uncertainty avoidance: Intolerance for ambiguity; need for many rules to constrain uncertainty.
<i>Individualism-collectivism:</i> Relative importance of individual vs. group interests.	Collectivism: Group interests generally take precedence over individual interests.	Individualism: Individual interests generally take precedence over group interests.
<i>Masculinity-femininity:</i> Assertiveness vs. passivity; material possessions vs. quality of life.	Masculinity: Values material possessions, money, and the pursuit of personal goals.	Femininity: Values strong social relevance, quality of life, and the welfare of others.
<i>Long-term vs. short-term orientation:</i> Outlook on work, life, and relationships.	Short-term orientation: Past and present orientation. Values traditions and social obligations.	Long-term orientation: Future orientation. Values dedication, hard work, and thrift.

<http://slideplayer.com/slide/10755890/>

Appendix 4 - Trompenaar and Hampden-Turner (1998) cultural dimensions:

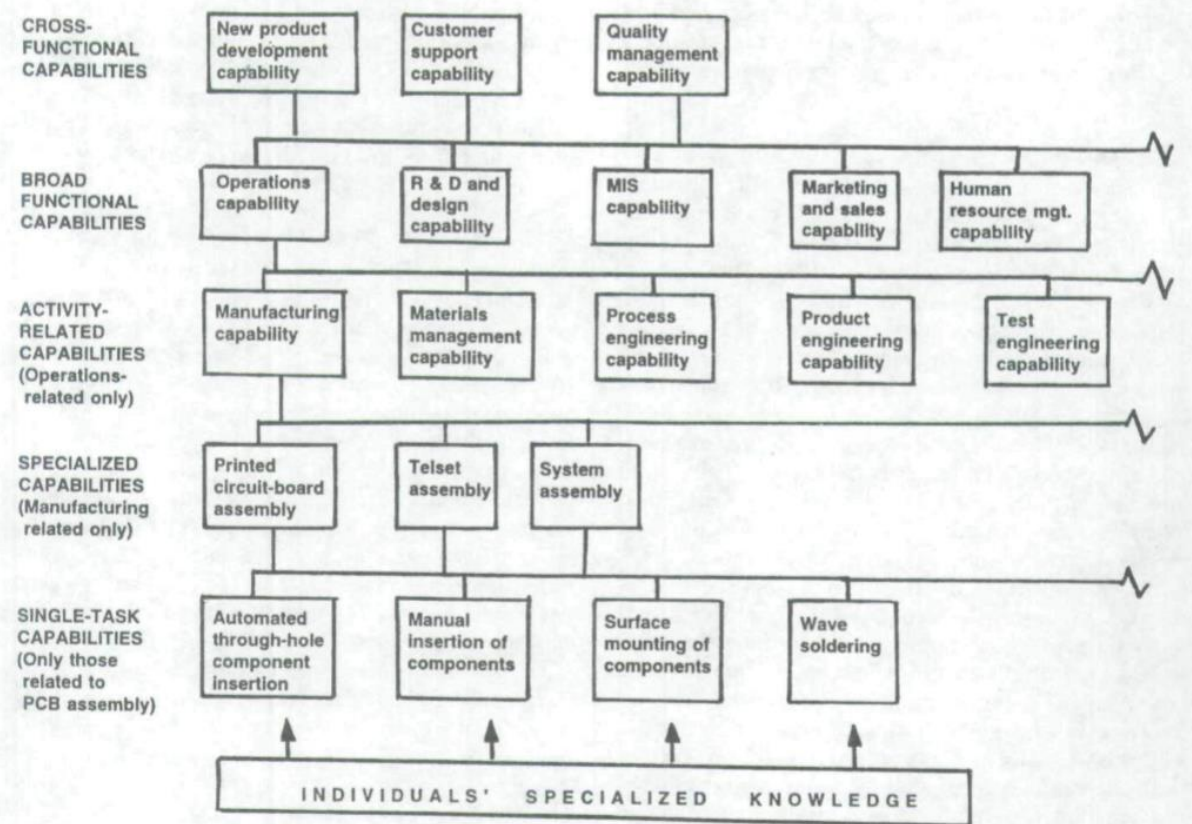
Cultural dimensions: Trompenaars

Cultural dimensions	Scale anchors	
<i>Universalism-particularism</i> : Relative importance of applying standardized rules and policies across societal members; role of exceptions in rule enforcement.	Universalism: Reliance on formal rules and policies that are applied equally to everyone.	Particularism: Rules must be tempered by the nature of the situation and the people involved.
<i>Individualism-collectivism</i> : Extent to which people derive their identity from within themselves or their group.	Individualism: Focus on individual achievement and independence.	Collectivism: Focus on group achievement and welfare.
<i>Specific-diffuse</i> : Extent to which people's various roles are compartmentalized or integrated.	Specific: Clear separation of a person's various roles.	Diffuse: Clear integration of a person's various roles.
<i>Neutral-affective</i> : Extent to which people are free to express their emotions in public.	Neutral: Refrain from showing emotions; hide feelings.	Affective: Emotional expressions acceptable or encouraged.
<i>Achievement-ascription</i> : Manner in which respect and social status are accorded to people.	Achievement: Respect for earned accomplishments.	Ascription: Respect for ascribed or inherited status.
<i>Time perspective</i> : Relative focus on the past or the future in daily activities.	Past/present oriented: Emphasis on past events and glory.	Future oriented: Emphasis on planning and future possibilities.
<i>Relationship with environment</i> : Extent to which people believe they control the environment or it controls them.	Inner-directed: Focus on controlling the environment.	Outer-directed: Focus on living in harmony with nature.

Appendix 5 – Grant (1996a) Groups of Capabilities

ROBERT M. GRANT *Dynamically-competitive Environments*

Figure 1 Organizational Capabilities of a PBX Producer: A Partial Vertical Segment



Appendix 6 - Rohrbeck and Kum (2018) Corporate Foresight

R. Rohrbeck, M.E. Kum



Fig. 1. Our CF maturity assessment model, based on Rohrbeck (2010a).

Appendix 7 – Questionnaire and participants consent

Dear Colleague,

My name is Zahraa Sajwani and I am a PhD candidate at the British University in Dubai. I am conducting my thesis on the topic of mergers in the Higher Education (higher education) industry. Particularly, I am examining the influence of government support, competitive intensity, knowledge creation capability, and future foresight competence on higher education mergers' effectiveness. Your participation in this study will be greatly appreciated, and all your responses will be kept confidential and anonymous. Returning the completed questionnaire will be considered an expression of your consent to participate in this study.

Many thanks,

Zahraa Sajwani +971509646369

20170174@student.buid.ac.ae

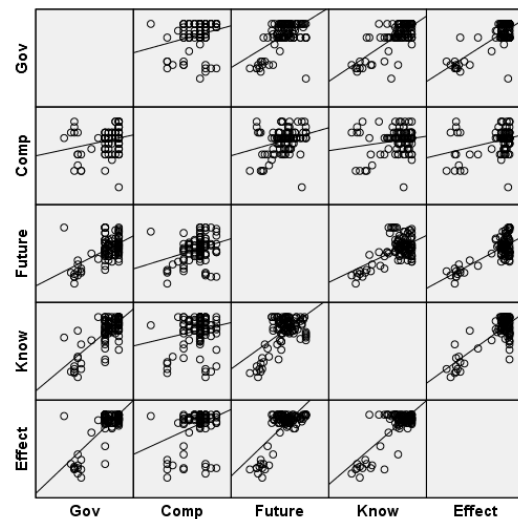
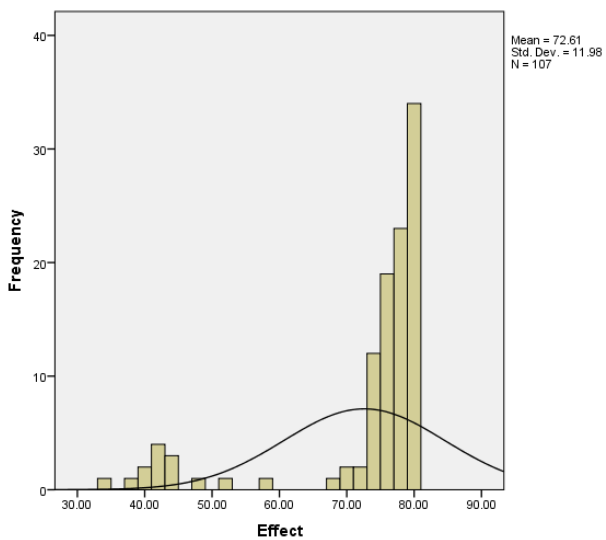
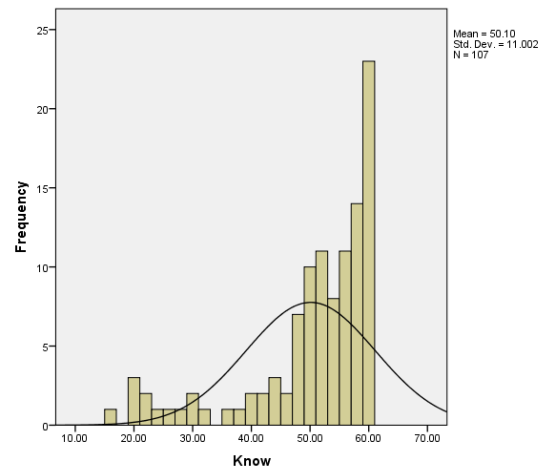
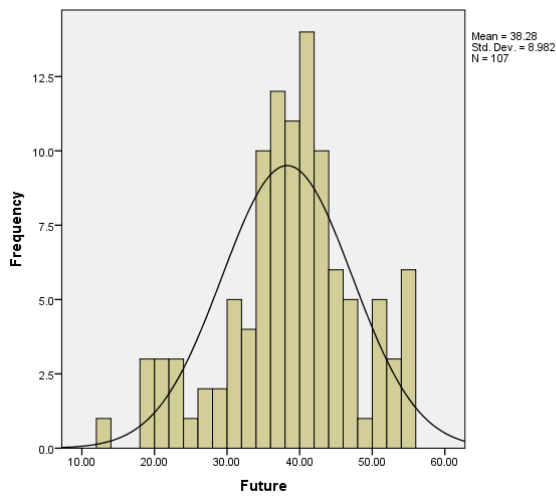
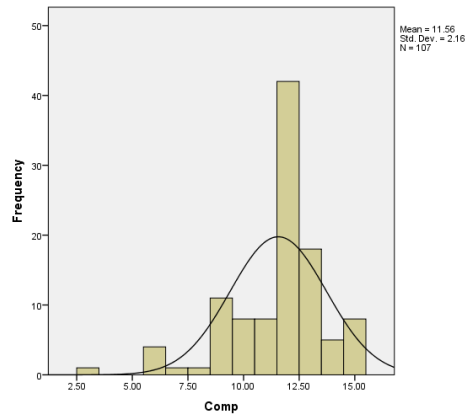
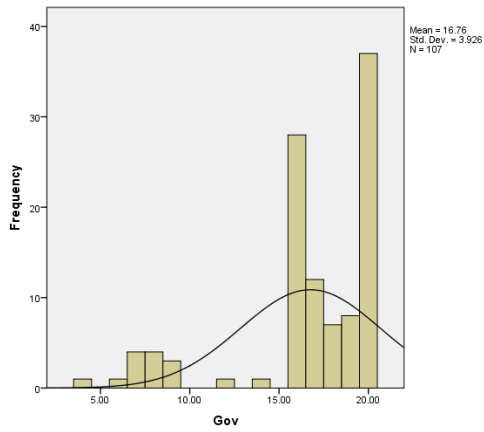
Demographics	<ul style="list-style-type: none">• Age<ul style="list-style-type: none">- Less than 25 years old.- 25 to 40 years old.- 41 to 60 years old.- Above 60 years old.	<ul style="list-style-type: none">• Gender<ul style="list-style-type: none">- Male.- Female.• Education<ul style="list-style-type: none">- Highschool- Undergraduate- Post graduate	<ul style="list-style-type: none">• Overall experience<ul style="list-style-type: none">- Less than 1 year.- From 1 to 5 years.- From 6 to 10 years.- More than 10 years.• Current job level<ul style="list-style-type: none">- Management level- General employee• Sector<ul style="list-style-type: none">- Private- Public/Government- Semi-government
General info about the higher education merger	<ul style="list-style-type: none">• Are you currently part of a higher education institute that have participated in a merger in the past?<ul style="list-style-type: none">○ Yes○ No• When have your higher education institute participated in a merger?<ul style="list-style-type: none">○ During the past year.○ During the past 2-5 years.○ During the past 6-10 years.		

	<ul style="list-style-type: none"> ○ Since more than 10 years. • Were you part of the higher education institution at the time of the merger? <ul style="list-style-type: none"> ○ Yes ○ No • What is your current level of employment in the higher education institution? <ul style="list-style-type: none"> ○ Top management ○ Middle management ○ Lower management ○ Faculty (academic) ○ General staff (non-academic) • Are you currently part of the academic or the non-academic staff of the institution? <ul style="list-style-type: none"> ○ Academic staff ○ Non-academic staff • Were you involved in the process of deciding to participate in the merger? <ul style="list-style-type: none"> ○ I was involved. ○ I was not involved. • Do you believe this is a successful higher education merger? <ul style="list-style-type: none"> ○ Yes, it is a successful and effective merger. ○ No, it is not a successful or effective merger.
Government support 1- Strongly disagree 2- Disagree 3- Neither disagree nor agree 4- Agree 5- Strongly agree	<ul style="list-style-type: none"> • The government implemented policies and programmes that have been beneficial to the organization's merger and operations • The government has provided our organization with technology information and technical supports during or post our merger • The government played a significant role in providing financial supports that was needed for our organizational merger and operations • The government helped our organization to obtain the required approvals or licenses for the merger and smooth operations
Competitive intensity 1- Strongly disagree 2- Disagree 3- Neither disagree nor agree 4- Agree 5- Strongly agree	<ul style="list-style-type: none"> • There is a constant rivalry on the fees and educational tuition amongst our merged university and other universities. • Our competitors in the higher education industry respond swiftly to any action or strategic decision that our merged university takes. • Almost every day there are new moves and actions that we hear our competitor universities are taking. • The level of competition in our higher education industry is fierce.
Knowledge creation capability	<ul style="list-style-type: none"> • Employees from the originally merged organizations met frequently to discuss work-related ideas and new developments with each other

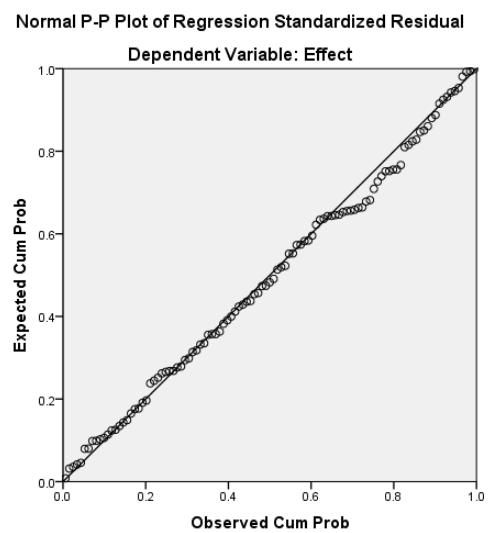
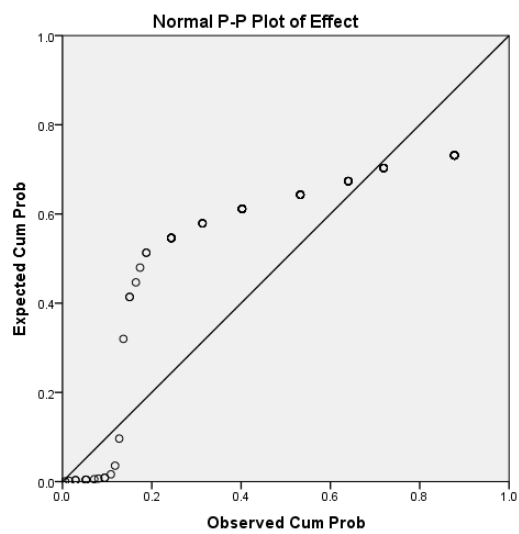
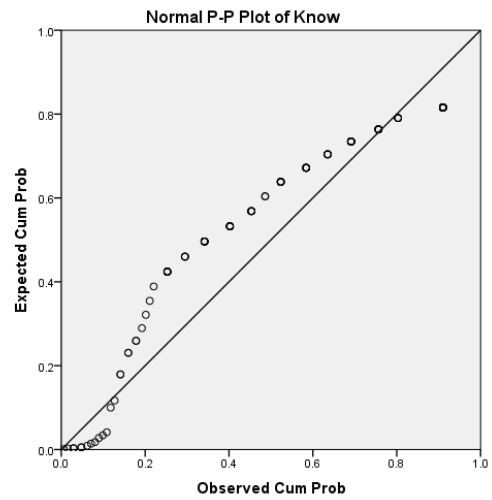
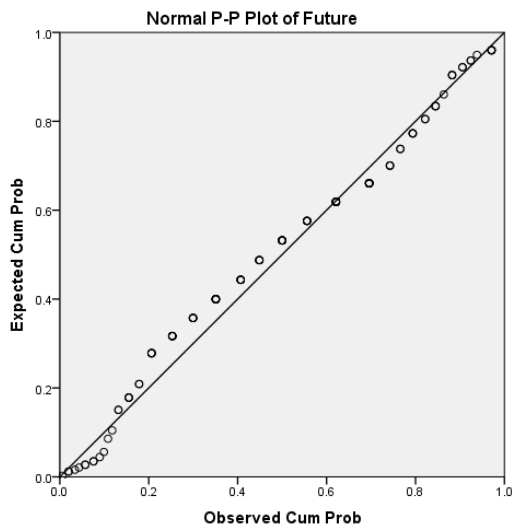
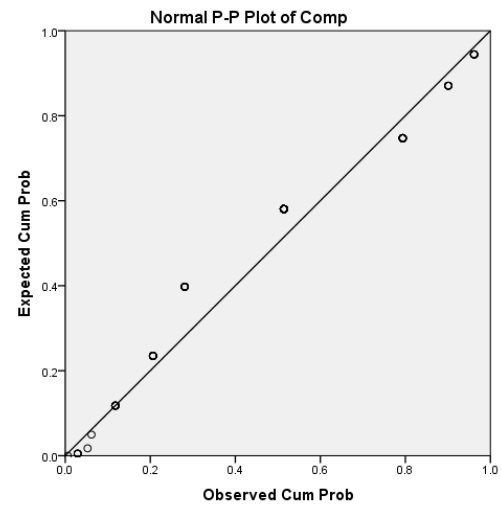
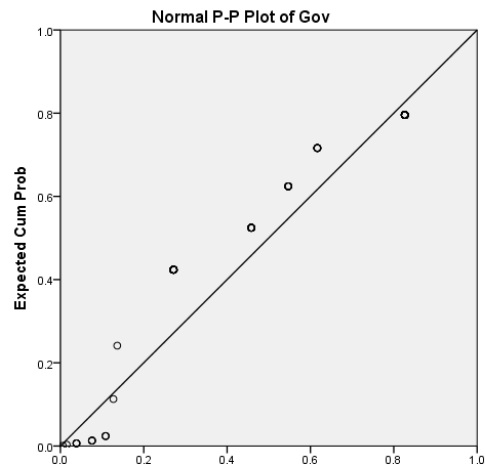
<p>(5-point Likert scale)</p> <p>1- Strongly disagree</p> <p>2- Disagree</p> <p>3- Neither disagree nor agree</p> <p>4- Agree</p> <p>5- Strongly agree</p>	<ul style="list-style-type: none"> • Employees from the originally merged organizations did not have difficulty getting together to exchange new ideas and developments • Employees from the originally merged organizations were available to discuss new ideas or developments with each other • Employees from the originally merged organizations felt free to contact anyone to discuss new ideas or developments • Employees from the originally merged organizations were proficient at combining and exchange ideas to solve problems or create opportunities with each other • Employees from the originally merged organizations did a good job of sharing their individual ideas with each other - to come up with new ideas, products, or services • Employees from the originally merged organizations learned to effectively pool their ideas and knowledge together • Employees from the originally merged organizations often exchanged and combined ideas to find solutions to problems together • Employees from the originally merged organizations saw benefits from exchanging and combining ideas with one another • The most valuable ideas seemed to come when employees from the originally merged organizations pooled their efforts together • Employees believed that, by exchanging and combining ideas, they can create value for the newly merged organization together. • Employees believed that, by pooling their efforts, they can create value for the newly merged organization together.
<p>Future foresight competence</p> <p>1- Does not describe my organization at all</p> <p>2- Mostly does not describe my organization</p> <p>3- Describes my organization a little bit</p> <p>4- Describes my organization a lot</p> <p>5- Mostly does describe my organization</p>	<ul style="list-style-type: none"> • Tests new trends that arise in the higher education industry early • Conscious of big trends in society that are related to higher education • Goes along when new trends in higher education come • Takes advantage of trends that pop up in the higher education industry • Considers how higher education trends interact with our organizational systems • Focuses on questions that are related to the future of higher education • Interested in questions that are related to the future of higher education • Focuses on greater future questions when it comes to higher education • Quickly adjusts to new situations that happen in the higher education industry • Makes things happen when the higher education industry's future demands it

6- Describes my organization perfectly	
<p>Merger effectiveness (5-point Likert scale):</p> <p>1- Much worse</p> <p>2- Little worse</p> <p>3- No change</p> <p>4- Little better</p> <p>5- Much better</p>	<p>Please rate your organization's effectiveness in terms of its past performance over the last three years before the merger (3 years pre-merger) to the last three years after the merger (3 years post-merger) in terms of the following indicators:</p> <ul style="list-style-type: none"> • Research output • University ranking • Students retention • Student enrolments • Quality of teaching • Quality of academic service • Differentiation in course offerings • Clarity of direction and policies • Sustainable management • Aligned leadership strategy • Brand and reputation • Financial success and tuition revenue • Return on investment • Internal and external communication • Employees' belonging • Improved cultural and social activities

Appendix 8 – Normality assumption testing



Appendix 9 – Linearity assumption testingq



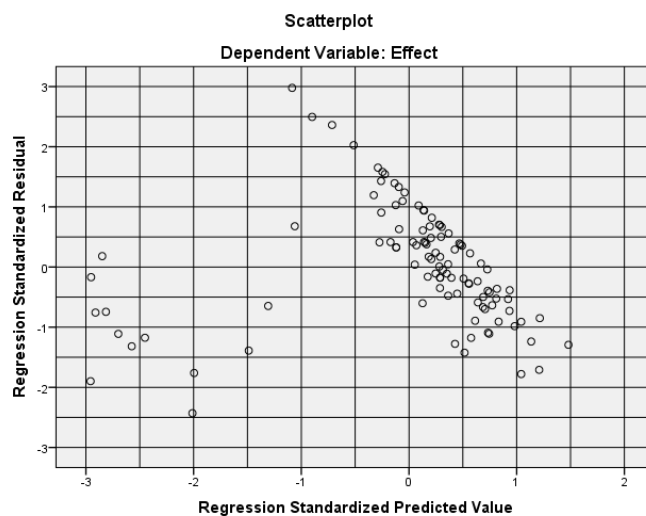
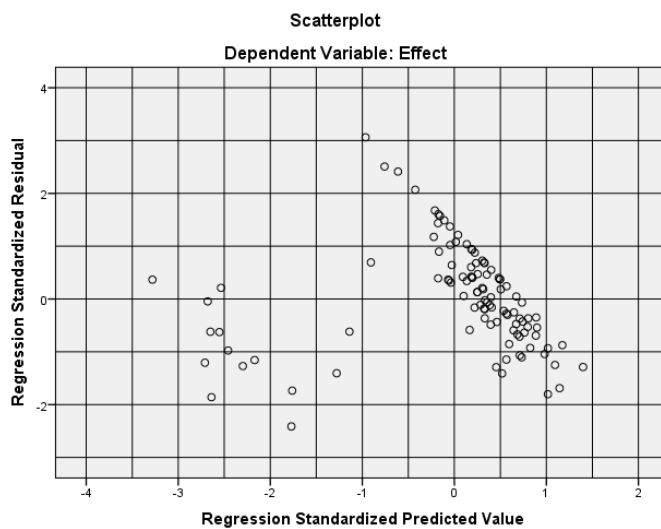
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Appendix 10 – Multicollinearity assumption testing

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	15.255	3.690		4.134	.000		
	Gov	.999	.221	.327	4.513	.000	.412	2.424
	Comp	.532	.272	.096	1.953	.054	.900	1.111
	Future	.408	.081	.305	5.060	.000	.595	1.681
	Know	.376	.080	.345	4.673	.000	.397	2.517

a. Dependent Variable: Effect

Appendix 11 – Homoscedasticity assumption testing



Appendix 12 – Exploratory Factor Analysis 1st attempt (6 factors)

Rotated Component Matrix^a

	Component					
	1	2	3	4	5	6
G1- The government implemented policies and programmes that have been beneficial to the organization's merger and operations	.531			.628		
G2- The government has provided our organization with technology information and technical supports during or post our merger				.728		
G3- The government played a significant role in providing financial supports that was needed for our organizational merger and operations				.712		
G4- The government helped our organization to obtain the required approvals or licenses for the merger and smooth operations	.464			.703		
C1- There is a constant rivalry on the fees, educational tuition, recruitment of faculty and students, and rankings, amongst our merged university and other universities.	-.567					
C2- Our competitors in the higher education industry respond swiftly to any action or strategic decision that our merged university takes.					.836	
C3- Almost every day there are new moves and actions that we hear our competitor universities are taking.					.852	
C4- The level of competition in our higher education industry is fierce.					.836	
K1- Employees from the originally merged organizations met frequently to discuss work-related ideas (such as article publications) and new developments with each other	.749					
K2- Employees from the originally merged organizations did not have difficulty getting together to exchange new ideas and developments	.816					
K3- Employees from the originally merged organizations were available to discuss new ideas or developments with each other	.819					
K4- Employees from the originally merged organizations felt free to contact anyone to discuss new ideas or developments	.739					
K5- Employees from the originally merged organizations were proficient at combining and exchanging ideas to solve problems or creating opportunities with each other	.831					

K6- Employees from the originally merged organizations did a good job of sharing their individual ideas with each other - to come up with new ideas, products, or services	.849					
K7- Employees from the originally merged organizations learned to effectively pool their ideas and knowledge together	.805					
K8- Employees from the originally merged organizations often exchanged and combined ideas to find solutions to problems together	.798					
K9- Employees from the originally merged organizations saw benefits from exchanging and combining ideas with one another	.808					
K10- The most valuable ideas seemed to come when employees from the originally merged organizations pooled their efforts together	.764					
K11- Employees believed that, by exchanging and combining ideas, they can create value for the newly merged organization together	.763					
K12- Employees believed that, by pooling their efforts, they can create value for the newly merged organization together	.742					
F1- Tests new trends that arise in the higher education industry early		.813				
F2- Conscious of big trends in society that are related to higher education		.837				
F3- Goes along when new trends in higher education come		.902				
F4- Takes advantage of trends that pop up in the higher education industry		.809				
F5- Considers how higher education trends interact with our organizational systems		.792				
F6- Focuses on questions that are related to the future of higher education		.648				.586
F7- Interested in questions that are related to the future of higher education		.606				.635
F8- Focuses on greater future questions when it comes to higher education		.541				.619
F9- Quickly adjusts to new situations that happen in the higher education industry		.502				
F10- Makes things happen when the higher education industry's future demands it		.510				
E1- Research output	.529	.634				
E2- University ranking	.521	.679				
E3- Students retention		.706				
E4- Student enrolments		.682				
E5- Quality of teaching	.465	.664				

E6- Quality of academic service		.655				
E7- Sustainable management		.738				
E8- Aligned leadership strategy		.756				
E9- Brand and reputation		.694				
E10- Financial success and tuition revenue	.454	.701				
E11- Return on investment	.474	.688				
E12- Internal and external communication	.494	.633				
E13- Employees' belonging		.645				
E14- Cultural and social activities		.688				
E15- Differentiation in course offerings		.719				
E16- Clarity of direction and policies		.643				

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Appendix 13 – Exploratory Factor Analysis 2nd attempt (5 factors – after removing F8)

Rotated Component Matrix^a

	Component				
	1	2	3	4	5
G1- The government implemented policies and programmes that have been beneficial to the organization's merger and operations	.523			.628	
G2- The government has provided our organization with technology information and technical supports during or post our merger				.729	
G3- The government played a significant role in providing financial supports that was needed for our organizational merger and operations				.713	
G4- The government helped our organization to obtain the required approvals or licenses for the merger and smooth operations	.456			.700	
C1- There is a constant rivalry on the fees, educational tuition, recruitment of faculty and students, and rankings, amongst our merged university and other universities.	-.563				
C2- Our competitors in the higher education industry respond swiftly to any action or strategic decision that our merged university takes.					.835

C3- Almost every day there are new moves and actions that we hear our competitor universities are taking.					.852
C4- The level of competition in our higher education industry is fierce.					.836
K1- Employees from the originally merged organizations met frequently to discuss work-related ideas (such as article publications) and new developments with each other	.746				
K2- Employees from the originally merged organizations did not have difficulty getting together to exchange new ideas and developments	.812				
K3- Employees from the originally merged organizations were available to discuss new ideas or developments with each other	.814				
K4- Employees from the originally merged organizations felt free to contact anyone to discuss new ideas or developments	.735				
K5- Employees from the originally merged organizations were proficient at combining and exchanging ideas to solve problems or creating opportunities with each other	.829				
K6- Employees from the originally merged organizations did a good job of sharing their individual ideas with each other - to come up with new ideas, products, or services	.845				
K7- Employees from the originally merged organizations learned to effectively pool their ideas and knowledge together	.800				
K8- Employees from the originally merged organizations often exchanged and combined ideas to find solutions to problems together	.794				
K9- Employees from the originally merged organizations saw benefits from exchanging and combining ideas with one another	.803				
K10- The most valuable ideas seemed to come when employees from the originally merged organizations pooled their efforts together	.759				
K11- Employees believed that, by exchanging and combining ideas, they can create value for the newly merged organization together	.759				

K12- Employees believed that, by pooling their efforts, they can create value for the newly merged organization together	.739				
F1- Tests new trends that arise in the higher education industry early			.793		
F2- Conscious of big trends in society that are related to higher education			.830		
F3- Goes along when new trends in higher education come			.879		
F4- Takes advantage of trends that pop up in the higher education industry			.805		
F5- Considers how higher education trends interact with our organizational systems			.826		
F6- Focuses on questions that are related to the future of higher education			.783		
F7- Interested in questions that are related to the future of higher education			.744		
F9- Quickly adjusts to new situations that happen in the higher education industry			.559		
F10- Makes things happen when the higher education industry's future demands it			.570		
E1- Research output	.521	.638			
E2- University ranking	.514	.682			
E3- Students retention		.708			
E4- Student enrolments		.683			
E5- Quality of teaching	.455	.672			
E6- Quality of academic service		.662			
E7- Sustainable management		.732			
E8- Aligned leadership strategy		.749			
E9- Brand and reputation		.692			
E10- Financial success and tuition revenue		.699			
E11- Return on investment	.467	.688			
E12- Internal and external communication	.489	.631			
E13- Employees' belonging		.649			
E14- Cultural and social activities		.696			
E15- Differentiation in course offerings		.727			
E16- Clarity of direction and policies		.644			

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

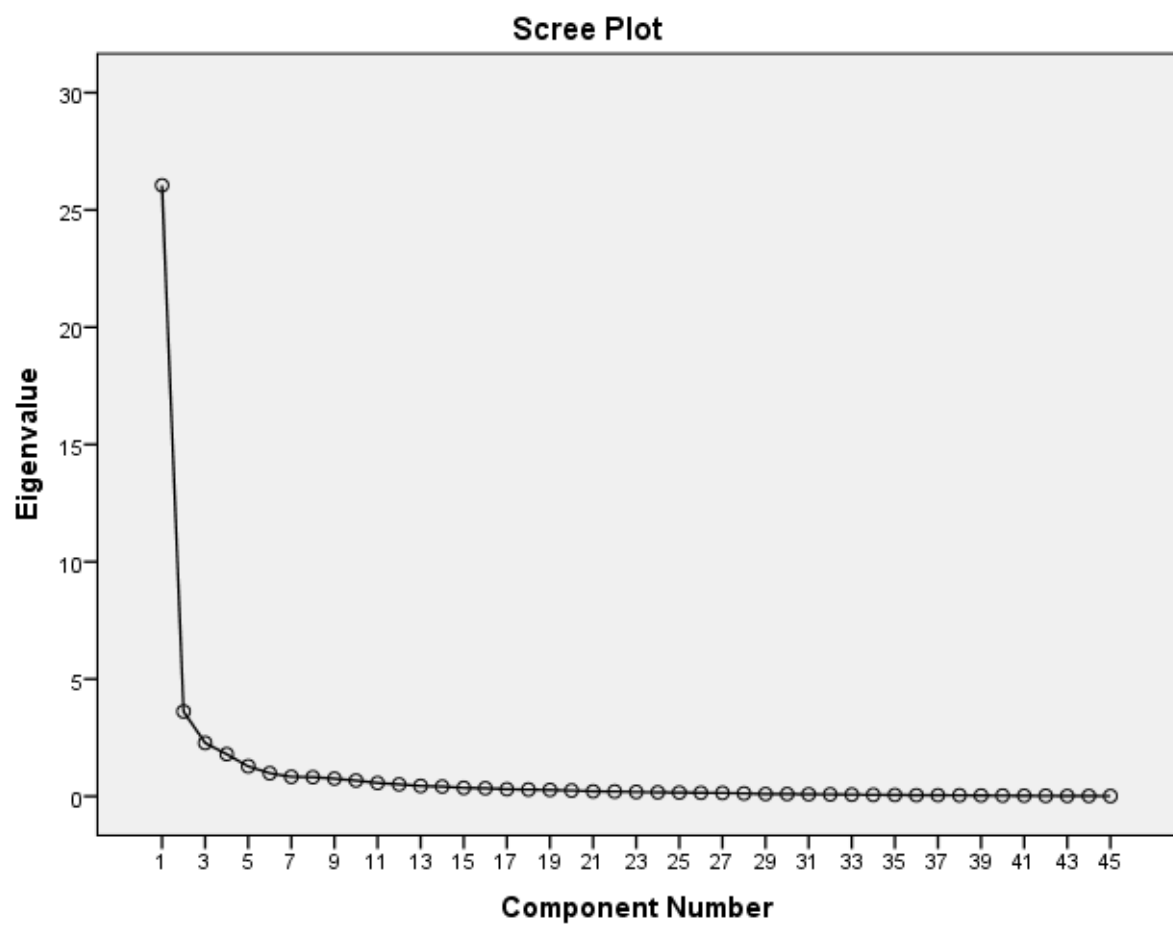
a. Rotation converged in 6 iterations.

Appendix 14 – Exploratory Factor Analysis total variance explained

Total Variance Explained						
Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	26.054	57.897	57.897	11.663	25.917	25.917
2	3.616	8.036	65.933	10.200	22.667	48.584
3	2.276	5.057	70.990	7.531	16.736	65.320
4	1.796	3.992	74.982	3.084	6.854	72.174
5	1.280	2.845	77.827	2.544	5.653	77.827
6	.984	2.188	80.015			
7	.831	1.847	81.861			
8	.818	1.817	83.679			
9	.752	1.671	85.350			
10	.674	1.497	86.847			
11	.567	1.259	88.106			
12	.507	1.127	89.233			
13	.439	.976	90.210			
14	.414	.919	91.129			
15	.358	.796	91.925			
16	.343	.762	92.688			
17	.302	.671	93.359			
18	.287	.637	93.996			
19	.272	.605	94.601			
20	.246	.547	95.148			
21	.212	.470	95.618			
22	.204	.453	96.071			
23	.184	.409	96.480			
24	.171	.379	96.859			
25	.160	.357	97.216			
26	.149	.331	97.547			
27	.143	.317	97.864			
28	.124	.275	98.139			
29	.100	.223	98.362			
30	.095	.210	98.572			
31	.088	.197	98.769			
32	.082	.181	98.950			
33	.070	.156	99.106			
34	.061	.136	99.243			
35	.058	.128	99.371			
36	.048	.106	99.477			
37	.043	.096	99.572			

38	.039	.087	99.660			
39	.033	.073	99.733			
40	.030	.068	99.800			
41	.025	.056	99.856			
42	.021	.046	99.902			
43	.017	.038	99.940			
44	.017	.037	99.976			
45	.011	.024	100.000			

Extraction Method: Principal Component Analysis.



Appendix 15 – Reliability and validity values

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	
Comp	0.833	0.899	0.897	0.746	
Future	0.952	0.954	0.959	0.722	
Gov	0.970	0.970	0.978	0.917	
Know	0.975	0.976	0.977	0.783	
Latent Var...	0.978	0.982	0.980	0.758	
	Comp	Effect	Future	Gov	Know
Comp	0.863				
Effect	0.349	0.871			
Future	0.319	0.730	0.850		
Gov	0.269	0.782	0.566	0.957	
Know	0.199	0.794	0.598	0.750	0.885