

EFFECTS OF LEADERSHIP COMPETENCIES ON
STUDENTS' LEARNING OUTCOMES AS MEDIATED BY
ORGANISATIONAL CULTURE IN SELECTED SAUDI
HIGHER EDUCATION INSTITUTIONS

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FACULTY OF EDUCATION
UNIVERSITY OF MALAYA
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AS MEDIATED BY ORGANISATIONAL CULTURE IN SELECTED SAUDI HIGHER
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ABSTRACT

Higher education institutions (HEIs) play a significant role in increasing the social and economic growth of a nation. They are responsible for the grooming of qualified individuals from various academic disciplines to meet the needs of the community. Thus, HEIs are in dire need of competent leadership that can help them to contribute to the nation's development, and to achieve the desired learning outcomes among students. Previous studies indicated that leadership has both direct and indirect impacts on students' learning outcomes (SLOs). By utilising mediating components in the educational environment, some studies have established the positive impact leaders can exert on students. Other studies pointed out that organisational culture could be one of the mediator components that impact positively on the outcomes of the educational environment. However, most of these studies were mainly conducted at basic education, such as among kindergarten and 12 years of basic education. There is still a lack of studies that examine the effect of leadership competencies of academic leaders on SLOs in HEIs. There is also limited evidence on the mediation role that organisational culture plays in HEIs. Therefore, this study aims to examine the effect of leadership competencies of academic leaders on SLOs in selected Saudi HEIs. It also aims to examine the mediating effect of organisational culture on the effect and relationship between leadership competencies of academic leaders and SLOs in selected Saudi HEIs. It also aims to identify the level of academic leadership competencies, the type of organisational culture, and the level of SLOs in selected Saudi HEIs. It also aims to examine the effect of organisational culture on SLOs in selected Saudi HEIs. Hence, this study utilised a quantitative research design by distributing questionnaires consisting of 120 items to faculty members in selected Saudi HEIs. They were selected using a proportionate stratified random sampling

technique. A total of 496 responses were received, and the data were analysed using SPSS (V.23) and PLS-SEM. The findings indicated that there are an indirect effect and relationship between leadership competencies of academic leaders and SLOs in selected Saudi HEIs. The findings illustrated that organisational culture mediated the effect and relationship between leadership competencies of academic leaders and SLOs in the selected Saudi HEIs. The findings indicated that academic leaders have a very high level of competencies in terms of their personal skills and required skills. The findings also stated that Clan Culture is the type of culture that is being practised currently in selected Saudi HEIs. The results also showed that students in selected Saudi HEIs at a high level of learning outcomes. The findings also pointed out that the organisational culture has a significant and direct effect on SLOs in selected Saudi HEIs. The findings of the study highlighted the importance of organisational culture in HEIs to the policymakers, stakeholders, and practitioners so that they will incorporate it in the future direction and planning of HEIs. The study has the potential to reflect positively on the performance of HEIs and the Ministry of Education.

**KESAN KECEKAPAN KEPIMPINAN TERHADAP HASIL
PEMBELAJARAN PELAJAR BERDASARKAN PENGANTARA BUDAYA
ORGANISASI DI INSTITUSI PENGAJIAN TINGGI ARAB SAUDI**

TERPILIH

ABSTRAK

Institusi pengajian tinggi (IPT) memainkan peranan penting dalam meningkatkan pertumbuhan sosial dan ekonomi sesebuah negara. Institusi-institusi ini bertanggungjawab untuk mempersiapkan individu-individu yang berkecayaan dalam pelbagai disiplin akademik untuk memenuhi keperluan masyarakat. Justeru, IPT memerlukan kepimpinan yang cekap bagi membantu mereka menyumbang kepada pembangunan negara dan mencapai hasil pendidikan dan pembelajaran yang dihasratkan dalam kalangan pelajar. Kajian terdahulu menunjukkan bahawa kepimpinan memberikan kesan secara langsung dan tidak langsung terhadap hasil pembelajaran pelajar (HPP). Dengan menggunakan komponen-komponen pengantara dalam persekitaran pendidikan, beberapa kajian telah terbukti memberikan impak positif kepada para pelajar. Kajian-kajian lain turut menyatakan bahawa budaya organisasi berupaya menjadi salah satu komponen pengantara yang memberikan kesan positif kepada hasil persekitaran pendidikan. Walau bagaimanapun, kebanyakan kajian sebegini hanya dijalankan pada peringkat pendidikan asas, seperti di tadika dan pendidikan rendah selama 12 tahun. Masih terdapat kekurangan kajian yang meneliti kesan kecekapan kepimpinan pemimpin akademik terhadap HPP di IPT. Terdapat juga bukti yang terhad mengenai peranan pengantaraan yang dimainkan oleh budaya organisasi di IPT. Oleh itu, kajian ini bertujuan untuk mengkaji kesan kecekapan kepimpinan akademik terhadap HPP di IPT Arab Saudi yang terpilih. Kajian ini juga bertujuan untuk meneliti kesan pengantara budaya organisasi terhadap hubungan

antara kecekapan kepimpinan pemimpin akademik dengan HPP di IPT Arab Saudi yang terpilih. Kajian juga bertujuan mengenal pasti tahap kecekapan kepimpinan akademik, jenis budaya organisasi, dan tahap HPP di IPT Arab Saudi yang terpilih. Kajian ini turut bertujuan meneliti kesan budaya organisasi terhadap HPP di IPT Arab Saudi yang terpilih. Selain itu, kajian ini menggunakan reka bentuk penyelidikan kuantitatif dengan mengedarkan borang soal selidik yang mengandungi 120 item kepada warga fakulti di IPT Arab Saudi yang terpilih dengan menggunakan teknik pensampelan rawak berstrata berkadar. Sejumlah 496 jawapan diterima dan data telah dianalisis dengan menggunakan SPSS (V.23) dan PLS-SEM. Hasil kajian menunjukkan bahawa terdapat kesan secara tidak langsung dan hubungan antara kecekapan kepimpinan pemimpin akademik dengan HPP di IPT Arab Saudi yang terpilih. Kajian juga mendapati bahawa budaya organisasi telah menjadi pengantara hubungan di antara kecekapan kepimpinan pemimpin akademik dengan HPP di IPT Arab Saudi yang terpilih. Menerusi hasil kajian, pemimpin-pemimpin akademik didapati memiliki kecekapan yang tinggi daripada segi kemahiran peribadi dan kemahiran diperlukan. Hasil kajian menyatakan Budaya Suku (*Clan Culture*) merupakan budaya yang sedang diamalkan di IPT Arab Saudi terpilih. Keputusan juga menunjukkan bahawa para pelajar di IPT Arab Saudi terpilih berada di tahap HPP yang tinggi. Hasil kajian turut menyatakan bahawa budaya organisasi mempunyai kesan signifikan dan secara langsung terhadap HPP di IPT Arab Saudi yang terpilih. Penemuan kajian ini menekankan pentingnya budaya organisasi di IPT kepada penggubal dasar, pihak berkepentingan, dan para pengamal supaya mereka dapat menambah baik haluan dan perancangan industri pengajian tinggi pada masa akan datang. Kajian ini juga berpotensi untuk mencerminkan prestasi institusi pengajian tinggi dan Kementerian Pendidikan secara positif.

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LIST OF ABBREVIATIONS

K-12	:	Kindergarten and 12-Years of Basic Education
NCAAA	:	The National Commission for Academic Accreditation and Assessment
NCA	:	The National Centre for Assessment
OCAI	:	The Organisational Culture Assessment Instrument
JU	:	Jazan University
TVTC	:	Technical and Vocational Training Corporation
LC	:	Leadership Competencies
OC	:	Oragnisational Culture
SLO	:	Students Learning Outcomes
PLS-SEM	:	Partial Least Squares Structural Equation Modelling
SPSS	:	Statistical Package for Social Science

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Education is an essential component of any nation's development. It helps to reduce poverty, hunger, and inequality. Moreover, it increases health, peace, justice, and economic growth. It aims to create individuals who are integrated and can serve the community and contribute to economic improvement (Altalhi, 2012). Many studies have established the significant roles of the institutions of higher education in improving the economic and social growth in the nation (Amanchukwu, Stanley, & Ololube, 2015; Deore & Ratnalikar, 2010). Societies around the world depend on the output of higher education. In other words, these institutes are responsible for the grooming of qualified individuals from different sectors to meet the needs of the community (Altalhi, 2012). Hence, higher education institutions need capable and competent leadership to achieve the goals of quality education to contribute to the nation's development (Alboti, 2014; Altalhi, 2012). The academic leaders have an essential responsibility in ensuring high-quality education outcomes that can contribute to the nation's growth.

Leadership is the key that contributes to achieving the quality of education (Amanchukwu et al., 2015; Cukanovic-Karavidic, Karavidic, & Vujicic, 2016). Moreover, Shahmandi, Silong, and Ismail (2012) pointed out that leadership in higher education is very critical due to its effect on the students' learning outcomes. Many studies have emphasised the link between leadership and improvement in the educational environment, especially in terms of the performance of the educational environment, students' achievements, and students' learning outcomes (Al-Safran,

Brown, & Wiseman, 2014; Balwant, 2016; Day, Gu, & Sammons, 2016; Gill et al., 2009; Harrison, 2011; Pina, Cabral, & Alves, 2015; Robinson, Lloyd, & Rowe, 2008). These studies also highlighted that the administrative environment and educational leadership are the most important components to take into account when attempting to create differences in the education sectors. The higher education sector is one of the educational sectors that are greatly influenced by leadership. In higher education institutes, the competency of their leadership plays a vital part in creating a satisfactory environment for faculty to teach effectively so that quality education can reflect positively on students (Shahmandi et al., 2012). In short, academic leadership is an essential component in higher education sectors.

Therefore, it is vital for academic leaders to increase their competencies to allow their institutes to survive and flourish in the competitive world today (Shahmandi, Silong, Ismail, Samah, & Omar, 2013). In order for academic leaders to develop their institutes, they must be aware of the obstacles in their workplaces and be competent enough so that they can select the appropriate leadership styles needed to tackle the various situations. This refers to that there is a notable relationship between leadership competencies of academic leaders and leadership styles. Shahmandi et al. (2013) emphasised that there is a correlation between leadership competencies and leadership styles. They pointed out that the contributions of competencies of leadership depend on the styles of leadership in particular situations. Hence, academic leaders who desire to increase their competencies should pay more consideration to the best leadership style that they should adopt to become more competent to develop their institutes effectively (Shahmandi et al., 2013).

According to Carless, Wearing and Mann (2000), before developing leadership skills of academic leaders, they should first be assessed on their leadership behaviours. The assessment of their leadership behaviours can be conducted by the Multifactor Leadership Questionnaire that focused on transformational and transactional leadership practices (Avolio & Bass 1994). Most of the previous literature focused on the types of leadership behaviours that have a more significant effect on the process of students' learning and educational environment. The two most commonly mentioned behaviours that impact on students' outcomes are transformational and transactional leadership (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Gill et al., 2009; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008). In view of that, it is clear that leadership impacts on students' learning outcomes both directly and indirectly (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016). Leadership could also exert a moderating effect on students' performance. As a result, leadership style can impact the outcome of students' performance positively or negatively. Transformational leadership, for instance, empowers the lecturers through professional training, better wages, and flexible working hours.

Based on these findings, it is obvious that competent leadership is important in reaching the desired quality of students' learning outcomes at the institutes of higher education. Thus, the system of higher education first needs to reform the administrative and leadership environment to achieve the ultimate aim. The failure and success of the sector of higher education depend on the competence of academic leaders (Deore & Ratnalikar, 2010). In turn, this means that the failure and success of learning outcomes among higher education students also depend heavily on the competencies of academic leadership. Many previous studies have pointed out that leadership had direct and indirect effect on students outcomes (Al-Safran et al., 2014;

Balwant, 2016; Day et al., 2016; Gill et al., 2009; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008). In addition, some other studies also indicated that academic leaders can impact positively and indirectly on students' learning outcomes depending on the utilisation of effective mediating components (Alfraih, 2014; Balwant, 2016; Bell, Bolam, & Cubillo, 2003; Hallinger & Heck, 1996; Leithwood & Jantzi, 2000). Organisational culture is one of the components which is considered as a mediator between leadership and outcomes (Balwant, 2016; Leithwood & Jantzi, 2000; Li, Bhutto, Nasiri, Shaikh, & Samo, 2018; Ogbonna & Harris, 2000; Silitonga & Ahmad, 2020; Sunarsi, 2020).

Organisational culture is a critical factor that has a significant impact on students and organisational outcomes as reported in many studies (Alsarahani, 2012; Alshibani & Alatwi, 2011; Imam, Abbasi, Muneer, & Qadri, 2013). Earlier studies have claimed that organisational culture can act as an effective mediating factor in the context of higher education. Likewise, Li et al. (2018) in their study highlighted that organisational culture can play a mediate role between leadership and achieving the innovation of the university. Additionally, organisational culture is considered as the most important factor that enhances the creativity, innovation and desirable performance in higher education. Furthermore, it was cited in the study of Ogbonna and Harris (2000) that organisational culture mediates the relationship between leadership style and the performance of the organisation. Although leadership is not directly linked to the achievement of good performance of an organisation, it can impact on the performance indirectly with the presence of organisational culture. Likewise, the findings from the study by Alferiah (2014), Balwant (2016) and Leithwood and Jantzi (2000) implied that organisational culture plays a mediating role which helps leaders to impact on students positively in the educational environment.

Accordingly, several studies have indicated that organisational culture leads to the successful improvement of the outcomes and performance, the creativity of faculty members, and development in different ways to enhance students' learning outcomes (Alsarahani, 2012; Fralinger & Olson, 2007; Li et al., 2018; Sakarnah, 2009; Sunarsi, 2020; Vasyakin et al., 2016). Thus, organisational culture plays an effective mediator role in the context of higher education.

As a result, academic leaders should be aware of the important role of organisational culture because it can help them to understand their culture better so that they can provide practical solutions to their institutions when the needs arise (Imam et al., 2013). Every organisation or institute has its own unique culture that is called the organisational culture of the organisation. Although organisational culture has several definitions, it is most commonly defined as a group of norms, beliefs, values, rules, habits, principles, and assumptions that exist among members of an organisation which influence their feelings, attitudes, behaviours, thoughts, and decisions (Barbars, 2015; Di Stefano & Scrima, 2016; Pietersen, 2017). This culture provides the organisation leaders and members with a way of interpreting events and thus may affect an organisation's improvement (Shafei & Laveh, 2012; Sheikhalizadeh & Piralaiy, 2017). Hence, culture in any organisation is an essential component as it influences individuals who work in the organisation.

Similarly, organisational culture plays a crucial role in the institutions of higher education as it is related to the performance of these institutions (Fralinger & Olson, 2007; Imam et al., 2013). It has a significant role in developing and transforming colleges and universities. Furthermore, a unique organisational culture can empower academic leaders to increase the outcomes of students' learning (Fralinger & Olson,

2007). As for the students, organisational culture helps them to realise their core competencies and personal, professional, and creative skills (Vasyakin, Ivleva, Pozharskaya, & Shcherbakova, 2016). It also helps to leave a favourable effect on students' learning outcomes. Moreover, Imam et al. (2013) pointed out that faculty members are the critical element in the university's organisational culture because they are often the longest-serving members in the university. As the faculty members advance to become academic leaders and hold an academic position, their influence expands, and they become a crucial element in the organisational culture.

Furthermore, Hogan and Coote (2014) indicated that organisational culture contains a group of norms, values, and behaviours that trickle down from top managers to line managers in the process of spreading cultural values within the organisation (Li et al., 2018). This idea is in line with another study refers to the organisational culture as a set of principles that academic leaders try to combine and instil among their organisation members (Fralinger & Olson, 2007). Organisational culture is created in part by competent leaders who can utilise the values of culture and apply them to achieve the desired performance and outcomes of the organisation.

As a result, higher education leaders must realise the importance of organisational culture and equip themselves with the necessary competencies to ensure success in the workplace in terms of achieving the excellence of education and students' learning outcomes that can meet the needs and goals of the society. According to Albutti (2014), the competencies needed for academic leaders include skills, capabilities, knowledge, and attitudes that allow them to lead their team and perform their responsibilities and tasks effectively.

While the meaning of competencies varies from one researcher to another, McClelland (1973), the first psychologist who introduced the concept of competency in the workplace, stated that competencies comprise traits, knowledge, skills, self-concept, and motives of leaders. Moreover, the competency defined as “an underlying characteristic of an individual that is causally related to criterion-referenced effective and superior performance in a job or situation” (Spencer & Spencer, 1993, p. 9). Seemiller (2016) also defined competencies as values, knowledge, behaviours, and abilities (motivations or skills) that influence an individual’s effectiveness in a specific task or role. The process of identifying and researching in leadership competencies has led many scholars to create leadership models that allow the leaders to transform the institutes for the best to ensure the desired quality that they have to achieve.

To ensure the excellence of leadership in the higher education sector, some researchers have developed leadership competency models specifically for academic leaders in higher education institutes (Karavidic, Karavidic & Vujicic, 2016; McDaniel, 2002; Smith & Wolverson, 2010; Sydänmaanlakka, 2003). Moreover, as mentioned before, McClelland (1973) was the first psychologist who presented the idea of competency in the system of higher education, and he found that several aspects are unique to an excellent educator, namely motivations, experiences, personal traits, and other characteristics.

Ever since then, human resource management around the world has been trying to develop leadership competency models to distinguish the specific competencies needed to ensure effectiveness in the organisation (Odumerum & Ogbonna, 2013). Attempts have also made to create a global model by identifying which traits, skills, knowledge, characteristics, behaviours, and attitudes that leaders should possess to lead the organisation successfully and efficiently. There are also other studies which

have developed standards and models to be applied in different sectors for the competency improvement of leaders to ensure the quality of the workplace. For example, Sydänmaanlakka (2003) developed a framework for intelligent leadership, consisting of 26 competencies that leaders need to achieve an intelligent environment. However, while these competencies found to be effective in different sectors, Sydänmaanlakka (2003) reported that not all these competencies were specific to the higher education environment.

Therefore, several studies have conducted to identify the leadership competencies of academic leaders, especially those in higher education institutes, and how these competencies are effective for institutional growth (Karavidic et al., 2016; McDaniel, 2002; Smith & Wolverson, 2010, Spendlove, 2007; Sydänmaanlakka, 2003). The identification of competencies of academic leaders is essential to ensure the quality of academic leaders so that they can produce capable students and unique organisational culture that subsequently lead to an increase in the performance and outcomes of the institutes. Clearly, a high level of leadership competency will produce highly qualified graduate students who can develop the nation and enhance the economic and social growth.

In short, academic leaders should enhance their level of leadership competencies to help their colleges and universities to continually improve and be useful in the fulfilling the needs of the community (Shahmandi et al., 2012). They need to attain a specific level of competency to help them to achieve success in an education setting, especially from the perspective of increasing students' learning outcomes by utilising organisational culture that can support the building of university's principles and enhance leadership competencies. Moreover, the quality of higher education

subjects to the way how a competent leader manages the educational environment (Deore & Ratnalikar, 2010). In other words, the excellence of higher education depends on the efficiency of academic leaders who have acquired the desired competencies. Clearly, competent academic leaders should be aware of the important role of organisational culture in higher education when trying to achieve the desired outcomes of students' learning.

1.2 Background of Study

The Kingdom of Saudi Arabia has introduced new education reformation movements to meet global quality standards in its educational system (Alshayea, 2012; Saudi Ministry of Education, 2018; NCAAA, 2018). It has also undertaken remarkable efforts to assure there is an outstanding quality of the system of higher education. Higher education institutions play a significant part in society because they are a cornerstone in educating people, advancing technologies, and enhancing economic development (Lu, Laux, & Antony, 2017). Recognising the importance of uplifting higher education institutions, the Saudi government has been generously supporting scientific research and encouraging higher education students to study abroad by offering them full scholarships (Alshayea, 2012; Saudi Ministry of Education, 2018). As high as 114,000 Saudi students were studying abroad under scholarships in 2017 (Saudi Ministry of Education, 2018).

Besides, to accomplish the desired quality of Saudi higher education institutions, the government has founded the National Commission for Academic Accreditation and Assessment (NCAAA). The mission of this commission is to achieve quality in the system of higher education in the Kingdom based on the 11 standards outlined according to worldwide standards (NCAAA, 2018). The

commission has also collaborated with the National Transformation Programme 2020 and developed several objectives, such as improving the educational environment, stimulating innovation and creativity to overcome any challenges in the process of educational growth (Saudi Ministry of Education, 2018).

Furthermore, the Saudi New Vision 2030 set up to support the movement of reforming the Saudi educational system and overcoming any challenges. It aimed to provide students with the skills and knowledge required for future employment in the Saudi job market (Saudi Ministry of Education, 2018). It also established with the aim to increase the quality of students' learning outcomes. This has led to a change in terms of improvement of the administrative environment in the Ministry of Education and its educational departments. Efforts are also underway to approve the decentralisation of the educational administration to support power delegation to school and educational departments at local levels (Saudi Ministry of Education, 2018). These efforts have been carried out to uplift the effectiveness of the Saudi educational system, especially the higher education institutions.

In line with the government's aspiration to attain quality education, Saudi Ministry of Education has collaborated with the National Centre for Assessment (NCA) to develop standards for school teachers and leaders. These standards aimed to measure if the teachers competent to deliver quality education to students, and whether the leaders are capable of achieving the educational goals (Qiyas, 2018; Saudi Ministry of Education, 2018). These standards aim to support school teachers and educational leaders towards improving the excellence of students' learning outcomes only in the kindergarten and primary schools which provide 12-years of basic education (K-12 education system). In contrast, the higher education sector has little

cooperation with the NCA in terms of assessing students' learning outcomes in some academic programme provided in colleges and universities.

In view of that, the Saudi Ministry of Education has started working in collaboration with the NCA and NCAAA to achieve the desired quality of students' outcomes in higher education institutions. Currently, they are working with the NCA on the National Project for Evaluation of the Learning Outcome. It designed to assess college students' learning outcome in some academic majors based on different standards (Saudi Ministry of Education, 2018). Moreover, as mentioned above, the Ministry of Education has also cooperated with the NCAAA and established 11 standards to ensure the quality in higher education in the Kingdom of Saudi Arabia. The fourth standard focuses on learning and teaching (NCAAA, 2018). It also emphasised on students' learning outcomes and indicated that these outcomes should be consistent with the National Qualification Framework in all programme and be clearly specified. For professional programme, the students' learning outcomes must be compatible with employment requirements or professional practice. The standard of learning should be assessed by proper processes and benchmarked alongside relevant external reference points (NCAAA, 2018). All these efforts were taken to create a palpable difference and ultimately improving the quality in students' learning outcomes in Saudi higher education institutions.

Several studies have pointed out that the administrative environment and academic leadership are the two most essential components when attempting to make a difference in the education sector (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Gill et al., 2009; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008). These studies have explained the direct and indirect connections between leadership and improved outcomes in students' learning. Thus, administrative environment and

academic leadership need to undergo reformation to ensure the transformation in the system of higher education. Additionally, academic leaders who desire to increase the students' learning outcomes need to realise the significant role of organisational culture (Albatah, 2006; Alsarahani, 2012; Sakarnah, 2009).

Consequently, the Saudi Ministry of Education is seeking to improve the administrative environment and the leadership competencies of academic leaders to increase the quality and excellence of students' learning outcomes and to better prepare them for the future job market (Saudi Ministry of Education, 2018). The effort started with the NCA developing standards with leaders who are working at the level of the K-12 education system intending to assess the school leaders and measure their competencies. It helps to identify the required leadership competencies that needed for competent school leaders at the lower education level (Qiyas, 2018; Saudi Ministry of Education, 2018). Unfortunately, there are still no specific criteria for academic leaders attached to Saudi higher education institutions. There is also still no clear vision for academicians who aspire to become a dean or departmental head. Moreover, the studies on the connection between leadership competencies and organisational culture with the development of high-quality education in terms of students' learning outcomes are still missing in the context of higher education institutions (King Fahad National Library, 2019; Saudi Digital Library, 2018).

Despite the lack of a clear vision for academic leaders, they have greatly influenced by organisational culture in Saudi higher education (Albatah, 2006; Alsarahani, 2012; Najmi, 2010; Sakarnah, 2009). Academic leaders can utilise organisational culture to make a difference in their workplace and to deal with any arising situations in the Saudi higher education field. Organisational culture in Saudi higher education institutions is the most important pillar in the foundation of

universities because it enhances the productivity of faculty members and leaders besides instilling a sense of belonging with the university where they work in, thus increasing their motivation to work harder (Alsarahani, 2012). All the institutions of higher education in the Kingdom of Saudi Arabia should pay more attention towards organisational culture because a good organisation culture will create the values, attitudes, principles, and thoughts among its members and lead to the success of the organisations (Alsarahani, 2012).

Moreover, organisational culture can lead to performance improvement and productivity increment. This helps the Saudi higher education institutions to achieve their intended educational outcomes (Alsarahani, 2012; Sakarnah, 2009). Albatah (2006) pointed out that it is crucial to instil awareness about the importance of organisational culture in Saudi higher education institutions because it provides a clear vision on the desired types of communication and interaction between individuals in the university environment.

The organisational culture in Saudi higher education institutes has an essential role in unifying the efforts of leaders and subordinates towards achieving the objectives of the institutes (Alsarahani, 2012). It has a direct impact on the productivity, performance, and outcomes of leaders, subordinates, and students (Albatah, 2006; Alsarahani, 2012). Hence, academic leaders must be aware of the role of the organisational culture in the institutions of higher education. In order for academic leaders to utilise organisational culture effectively, they must first possess the right level of leadership competencies that will then allow them to be more competent in enhancing students' learning outcomes.

The Saudi Ministry of Education is working on reforming and transforming the higher education sector by improving the administrative environment and increasing the leadership competencies (Saudi Ministry of Education, 2018). This movement aimed to increase the students' learning outcomes and to prepare them for the future job market (Aleassa, 2010). It also aimed at developing the country and enhancing economic growth. However, all the stakeholders need to remember that the aims of this movement will not achieve without giving serious consideration to organisational culture, as it is the cornerstone in building the principles of higher education institutes to stimulate the improvement in the development and performance of the institutes. Sadly, most of these efforts in the Kingdom of Saudi Arabia have only undertaken in the K-12 educational system.

Hence, this study focused on higher education institutes to identify the required level of leadership competencies of academic leaders to achieve the Kingdom's growth. This study also identified the role that organisational culture plays in Saudi higher education as a mediating effect between leadership competencies of academic leaders and the outcomes of students' learning.

1.3 Statement of the Problem

Leadership is a critical component that determines the differences between organisations (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Northouse, 2016). In view of that, the quality of higher education relies on the way that the higher education leader manages and directs this setting (Shahmandi et al., 2012). Many studies have pointed out that there is a connection between leadership and the performance of the educational institutions and students' learning outcomes (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Gill et al., 2009; Harrison, 2011;

Pina et al., 2015; Robinson et al., 2008). In other words, these studies highlighted that leadership impacts on students' learning outcomes directly and indirectly.

However, most of these studies conducted in the lower education level, i.e. K-12 schools, rather than higher education institutions (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Gill et al., 2009; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008). There are also a few studies that highlighted the importance of leadership on higher education institutions in term of developing or identifying the competencies of academic leaders and the skills required for effective academic leadership (Alboti, 2014; Alhojeli, 2010; Altlihi, 2012; Shahmandi et al., 2012; Shahmandi et al., 2013; Spendlove, 2007). Nevertheless, there is still an absence of studies on the effect of leadership competencies and the required skills of academic leaders on students' learning outcomes at Saudi higher education institutions (King Fahad National Library, 2019; Saudi Digital Library, 2018).

In order for academic leaders to impact positively on students' learning outcomes, they have to consider mediating components that can help them to achieve the desired outcomes (Balwant, 2016; Bell et al., 2003; Hallinger & Heck, 1996; Leithwood & Jantzi, 2000; Li et al., 2018; Ogbonna & Harris, 2000). Organisational culture is one of the crucial elements that linked to the competencies of leadership and the improvement of the performance and outcomes of higher education institutions (Alsarahani, 2012; Sheikhalizadeh & Piralaity, 2017). Many studies have informed that organisational culture mediates the relationship between leadership and the outcomes of the institutions (Giritli, Topçu-Oraz, & Acar, 2013; Li et al., 2018; Mozaffari, 2008; Ogbonna & Harris, 2000; Schein, 1992; Schimmoeller, 2010; Zehir, Ertosun, Zehir, & Muceldili, 2011). Accordingly, academic leaders can deem organisational culture as a

mediating element that would help them to achieve the desired outcomes in higher education.

Organisational culture has a direct and indirect impact on the organisation's outcomes (Martinez, Beaulieu, Gibbons, Pronovost, & Wang, 2015). It also plays a noteworthy role in the performance and effectiveness of an organisation (Imam et al., 2013). It is also related to the individual creativity and enhancement of students' learning outcomes (Alsarahani, 2012; Fralinger & Olson, 2007; Sakarnah, 2009; Vasyakin et al., 2016). Organisational culture has a remarkable role in the performance of different organisations, including higher education institutions. Thus, a competent academic leader needs to be familiar with organisational culture as it influences the outcomes and performance of higher education institutions (Sheikhalizadeh & Piralaiy, 2017).

In the Kingdom of Saudi Arabia, there is still a lack of studies and investigations that emphasis on the importance of organisational culture in higher education institutions (Alsarahani, 2012; Saudi Digital Library, 2018). To date, there is no study also conducted in the Kingdom of Saudi Arabia to identify how organisational culture can be utilised by academic leaders to increase the outcomes of students' learning in Saudi higher education institutions (see APPENDIX A) (King Fahad National Library, 2019; Saudi Digital Library, 2018). Previous studies have pointed out for leaders to impact positively on students' outcomes; they should consider mediating elements that can improve the effectiveness among students (Balwant, 2016; Bell et al., 2003; Hallinger & Heck, 1996; Leithwood & Jantzi, 2000; Li et al., 2018). Thus, this study also focuses on organisational culture as a mediating component that leaders can use to enhance the outcomes of students' learning.

Furthermore, there is also a scarcity of research on the effect of academic leadership on the outcomes of students' learning in Saudi higher education institutions (Atlhi, 2012; Saudi Digital Library, 2018). Very few studies on leadership competencies among higher education leaders have published (Balwan, 2016). The available studies mainly focused on identifying the leadership competencies of academic leaders and how these competencies are effective for institutional growth (Alboti, 2014; Atlhi, 2012; Coelli & Green, 2012; Saudi Digital Library, 2018). Nonetheless, these studies did not report on how these competencies could enhance and improve the students' learning outcomes at higher education institutions (Alboti, 2014; Saudi Digital Library, 2018).

Similarly, most of the studies that have conducted around the world generally focused on exploring the competencies of academic leaders and their effects on the educational environment or employees (Alboti, 2014; Alhojeli, 2010; Deore & Ratnalikar, 2010; Ghasemy, Hussin, & Daud, 2016; Lieff et al., 2016; Pomeda & Casani, 2013; Spendlove, 2007). There remains a gap in the published literature regarding the impact of leadership competencies of academic leaders, specifically on the students' learning outcomes at the higher education institutions.

Even though many studies have developed standards for improving the competencies of academic leaders, most of these competencies are not suitable for higher education institutions. For example, Sydänmaanlakka (2003) developed a framework for intelligent leadership which consists of 26 competencies that leaders should equip with to achieve an intelligent environment. However, upon further testing, Sydänmaanlakka (2003) found that these competencies are not suitable for the higher educational environment (Smith & Wolverton, 2010).

On a separate note, McDaniel (2002) developed a model called Core Higher Education Leadership Competency Model (HELIC). In the model, the competency domain classified as 4 groups; namely communication, process, context, and content (McDaniel, 2002). Although some studies supported McDaniel's findings in terms of the validation and effectiveness of using this model for academic leaders, other studies have concluded that this model is not sufficient for leaders in higher education institutions (Collum, 2014; Katherine, 2011; Smith & Wolverton, 2010).

Given the mixed opinions, some researchers further tested McDaniel's model (HELIC) to determine the relevance of this model to higher education institutions and to identify the critical competencies required for academic leaders (Collum, 2014; Katherine, 2011; Smith & Wolverton, 2010). Smith and Wolverton (2010) tested the HELIC model quantitatively to develop a refined model of competent leadership in higher education institutions. They found some significant gaps in the model. Of the five competency categories (analytical, student affairs, external relation, behavioural, and communication) that developed, only 3 out of the 16 competencies were related to the first group (analytical), which are contextual to the higher education institution. The remaining competencies listed in the HELIC model are not directly related to higher education institutions (Smith & Wolverton, 2010).

Based on this finding, it can be said that most of the models created for competent academic leaders are not suitable to be used in the higher education system. Moreover, there are no clear standards or guideline for skill and competency development for academic leaders in the higher education institutions (Deore & Ratnalikar, 2010; Lieff et al., 2016; Spendlove, 2007). For instance, Spendlove (2007) conducted a study on rectors and pro-vice-chancellors from different universities in

the UK and found that most of the universities do not have any organisational strategy or systematic approach in developing educational leadership skills.

On a similar note, the system of Saudi higher education also lacks a systematic approach for the development and increasing of leadership skills and competencies for higher educational leaders (Saudi Ministry of Education, 2018). The Saudi Ministry of Education is currently focusing on reforming the K-12 via NCA to develop an established standard for school teachers and leaders (Saudi Ministry of Education, 2018). These standards aim to measure the competencies of the teachers in terms of delivering quality education to students, and the competencies of leaders in terms of achieving the educational goals. The ultimate aim of these standards is to support school teachers and educational leaders in improving and enhancing the students' outcomes in the K-12 (Qiyas, 2018; Saudi Ministry of Education, 2018). These efforts have narrowed the gap in the development of competent leaders, specifically for the K-12 educational sector.

However, the same cannot be said regarding higher education institutions. Although the Saudi Ministry of Education has been working closely with the NCA and NCAAA, it is important to note that both NCA and NCAAA are not established specifically to identify and develop leadership competencies for academic leaders in higher education level (Saudi Ministry of Education, 2018). As such, up to date, there is still no leadership competency standards for education leaders in the system of Saudi higher education.

Although the Saudi government has undertaken significant efforts to improve the excellence in higher education and students' outcomes, many challenges lie ahead (Saudi Ministry of Education, 2018), especially in terms of the lacking of students'

skills and critical thinking skills, and inefficient educational services and programme. Moreover, a weak educational setting represents a hindrance in cultivating innovation and creativity among the students (Aleassa, 2010; Saudi Ministry of Education, 2018). Therefore, the Saudi Ministry of Education has collaborated with the National Transformation Programme 2020 to develop ways to overcome these challenges. Improving the educational environment, stimulating innovation, and creativity are some of the aims of this programme (Saudi Ministry of Education, 2018). These objectives will not achieve without competent academic leaders who have sufficient leadership competencies and are aware of organisational culture. Hence, it is vital first to reform the leadership environment before the higher education system can transform.

Most of these efforts to reform the educational system in the Kingdom of Saudi Arabia focused on 2 main issues, the quality of teachers and leaders in the general education sector (the K-12 educational system) and the appropriate way to measure the quality of higher education in terms of students' learning outcomes (Saudi Digital Library, 2018; Saudi Ministry of Education, 2018). To date, deans and departmental heads still do not have a clear vision about their work as competent academic leaders. Moreover, there is also a lack of study regarding the effect of leadership competencies on students' learning outcomes in universities or colleges (Saudi Digital Library, 2018; Saudi Ministry of Education, 2018).

To the best of researcher knowledge, up to date, still, no study has been conducted in the Kingdom of Saudi Arabia to examine organisational culture as a mediator that affects the competencies of academic leaders' and students' learning outcomes in higher education institutions (APPENDIX A) (King Fahad National Library, 2019). Most of the previous studies shared the four same themes below;

namely, i) focus on identifying the leadership competencies and its significance to leaders, ii) attempt to explore the leadership competencies of the leaders and their relation to the improvement of the department, iii) aim to enhance the staff members and empowering the internal and external communications regardless of students' outcomes, and iv) main study targets being school leaders and heads of departments (Saudi Digital Library, 2018; Saudi Ministry of Education, 2018). Apart from that, not all the competencies explored in these studies are suitable for the higher education sector. Therefore, this study aimed to examine the effect of competencies of academic leaders on students' learning outcomes in selected Saudi higher education institutes and the mediating effect of organisational culture between them.

This study was carried out at the higher education institutions in Jazan province, which located in the southern portion of the Kingdom of Saudi Arabia. Studies and research related to this issue are lacking in this province (King Fahad National Library, 2019; Saudi Digital Library, 2018; Saudi Ministry of Education, 2018). Based on the results from King Fahad National Library (2019) and the Saudi Digital Library (2018), there is still no study, so far, that conducted in Jazan province pertaining to the effect between leadership competencies of academic leaders, organisational culture, and outcomes of students' learning at the higher education institutions. It hoped that the results of this study would offer the necessary evidence for the Ministry of Education to overcome the challenges faced by the Saudi higher educational system. Furthermore, the results will also benefit the stakeholders in higher education institutions. It will support the Saudi New Vision 2030 by providing the essential criteria, guidelines, and recommendations for academic leaders to improve the higher education sector in this challenging time.

In conclusion, there have been several studies addressed the competencies of academic leaders in the institutions of higher education and the effect of organisational culture in the sector of higher education separately. Thus, this study focused on connecting these two variables to improve students' learning outcomes in Saudi higher education institution. Moreover, the current study also identified the level of competencies required of academic leaders in the effort to enhance the students' learning outcomes. The mediating effect of organisational culture on the effect of leadership competencies on students' learning outcomes was also a focus of this study. Clearly, the study aimed to analyse the mediating effect of organisational culture on the effect and relationship between academic leadership competencies and students' learning outcomes in selected Saudi higher education. The findings from this study were the basis of recommendations for those who desire to be a competent academic leader at higher education institutes. These recommendations provided a clear direction for leaders who are currently suffering from a lack of leadership competencies. Last but not least, the study results also provided recommendations to higher education institutions to develop and increase the outcomes of students' learning.

1.4 Theoretical Framework

This study adopted a total of four theories and two theoretical models to describe the philosophy related to this study. The first three theories were linked to theories of leadership, while the fourth theory was concerned with students' academic performance. For the theoretical models, the first one touched on organisational culture while the second model focused on students' learning outcomes.

The theories relating to leadership were Competency Theory of Leadership, Transformational Leadership Theory, and Transactional Leadership Theory. Competency Theory of Leadership is of vital importance for academic leaders who desire to develop their competencies and leadership skills (Clark, 2016). Academic leaders need to improve their competencies and skills to allow their institutions to develop and survive. The contributions of competencies of leadership depend on the styles of leadership in particular situations (Shahmandi et al., 2013). According to Carless et al. (2000), in order for academic leaders to improve their leadership skills, they must first assess their leadership behaviours. They can apply the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1994, 2004) to measure their transformational and transactional behaviours (Carless et al., 2000). Most of the previous leadership studies have focused on transformational and transactional behaviours of leaders and how these behaviours have impacted on the students and educational outcomes (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Gill et al., 2009; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008). Hence, this study included the transformational and transactional leadership theories that academic leaders should embrace to be a capable and competent leader (Northouse, 2016).

As for organisational culture, the theoretical model that adopted was the Organisational Culture Assessment Instruments (OCAI), where the Classification Scheme of Learning Outcomes used for students' learning outcomes. The classification scheme based on Cognitive theory, Skill-Based theory, and Affective theory of Learning Outcomes. Finally, the theory related to students' academic performance was the Theory of Students' Involvement. All these theories and theoretical models helped to formulate the conceptual framework of this study and subsequently used in the development of the competencies needed for competent

academic leaders. These theories and models are discussed in-depth in the next sections.

1.4.1 Theories Related to Leadership

1.4.1.1 Competency Theory of Leadership

The first theory that supported the research study was the Competency Theory of Leadership. There are various meanings and models concerning competencies that practised in modern organisations. David McClelland (1973), a psychologist, was the founder of the competency concept. He claimed that academic eligibility, intelligence, and knowledge tests are no longer valid or sufficient (Clark, 2016; Vazirani, 2010). McClelland's perspective of this claim refers to that there are 5 main themes transpired from his theory about the effectiveness of the specialists and public opinion (Vazirani, 2010). The five themes are:

- 1) School's grades did not predict the success of vocational and professional work.
- 2) Aptitude and intelligence test did not predict occupational achievement or other outcomes.
- 3) Predicting job performance can only be carried out by test and academic performance because of its association with social status.
- 4) These exams were inequitable for minorities.
- 5) Competencies may be preferable in terms of predicting the important behaviours compared to traditional tests (Vazirani, 2010).

McClelland (1973) stated that competencies could be better described as an iceberg (Figure 1.1). The person's skills and knowledge presented on the top of the

iceberg, which is the visible part while the majority of the iceberg hidden under the waterline represents the individual characteristics, traits, self-concepts, and motives such as empathy, self-confidence, accomplishment orientation, and other characteristics.

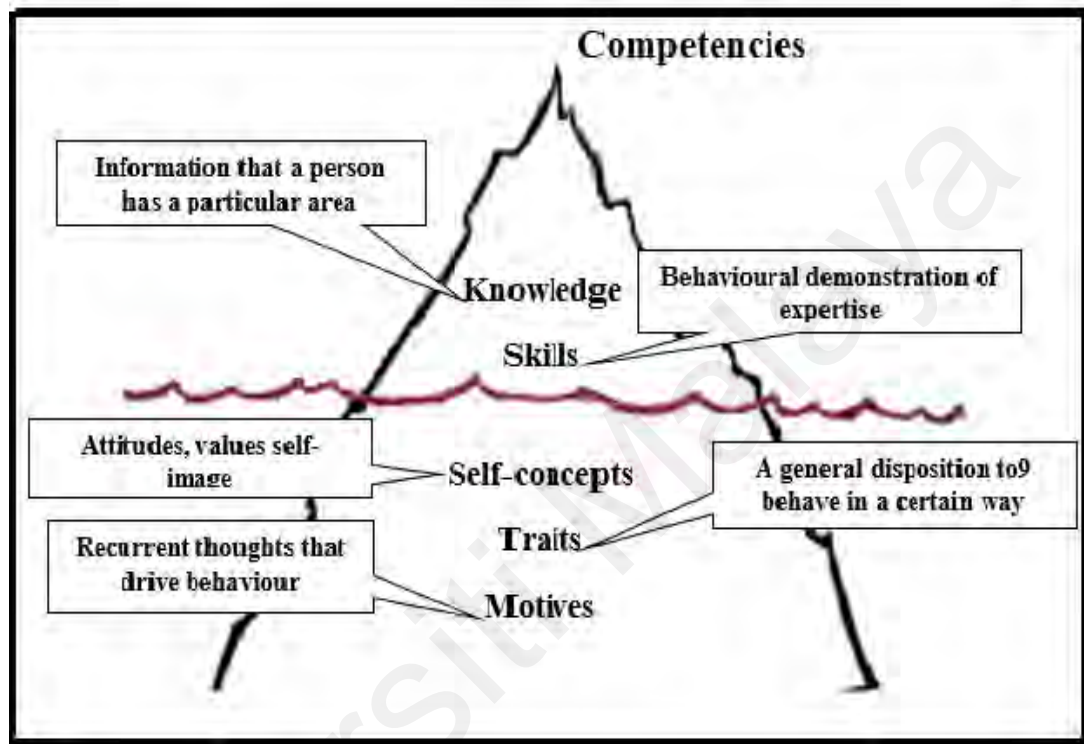


Figure 1.1. McClelland's 'Iceberg' Concept of Competencies (Source: Vazirani, 2010 p.122)

Several definitions of competencies added recently to define the effectiveness of leadership. For example, Vazirani (2010) defined competencies as the techniques of thinking or behaving an individual develop after experiencing a wide range of circumstances and these characteristics will remain for a long period of time. There are several different terms in Vazirani's definition; namely knowledge, skill, self-concept, traits, motives, morals, and values. Knowledge means the information and education within an individual. Skill indicates the individual's ability to perform and achieve a specific task. Self-concept and values refer to the attitude, values, and self-image of the individual. Traits include the physical attributes, characteristics, and

coherent reactions of an individual to the condition or information. Lastly, motives refer to desires, physiological needs, or emotions that stimulate action.

Competencies are strongly associated to the performance of the workplace. Spencer and Spencer (1993) pointed out that the types of competencies required should be based on the achievement of the workplace, rather than a fixed set of criteria that one is required to have. They also argued that the competencies of knowledge and skills are easier to develop compared to other personal competencies such as traits, self-concept, and motives (Figure 1.2). Thus, the study stated that organisations must select individuals based on their core motives and trait competencies as the skills and knowledge required for the specific jobs can be imparted to the workers later on (Spencer & Spencer, 1993).

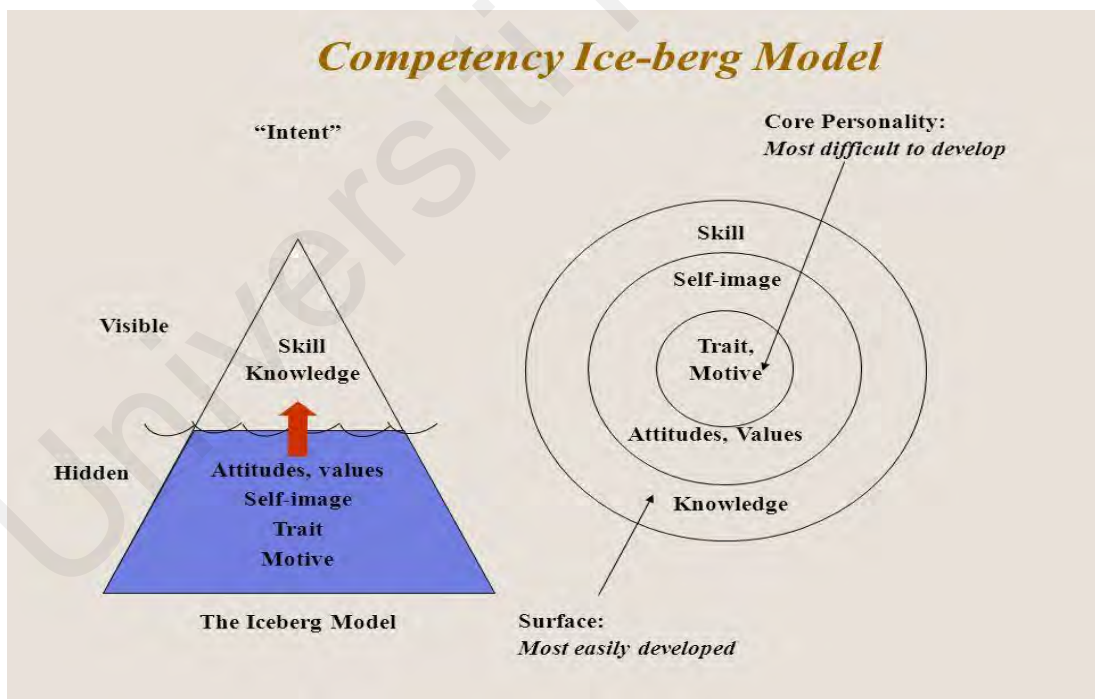


Figure 1.2. Competency Ice-Berg Model (Source: McClelland, 1973)

Many theories and models of leadership competencies have been developed based on McClelland's concept of competency. For instance, the Pyramid of

Leadership, which is also called the Leadership Competency Model, is developed based on his concept. Clark (2016) indicated that the Pyramid of Leadership divided into 3 domains, namely (1) Core Competencies, (2) Leadership Competencies, and (3) Professional Competencies. Every stage of the pyramid contains specific features to ensure the effectiveness of leaders. Figure 1.3 presents the Pyramid of Leadership.



Figure 1.3. Pyramid of Leadership (Source: Clark, 2016)

The first level of the pyramid in Figure 1.3 above is core competencies (Clark, 2016). This level contains the essential competencies in terms of personal skills that an individual should have at all levels of leadership to become a leader. This represents a strong foundation of the pyramid because without it the remaining parts of the

pyramid will not stand. The core competencies include several personal skills such as communication, self-direction, teamwork, interpersonal skills, creative problem-solving, flexibility, management of client relationships, financial control, the formation of appropriate relationships, professionalism, and business acumen (Clark, 2016).

The second level of the pyramid of leadership is leadership competencies as shown in Figure 1.3 above (Clark, 2016). This level consists of the required skills necessary to drive the institutes to the edges of different technologies. This level separates a leader from merely a boss. The foundations and the wall of the leadership pyramid are created by these skills. The leaders are as a hollow windbag without these skills. These skills can be categorised into leadership abilities, creating and leading teams, visioning process, implementing employee involvement strategies, fostering conflict resolutions, assessing situations quickly and accurately, managing project, and teaching and training assistants and subordinates (Clark, 2016).

The final level of the pyramid of leadership shown in Figure 1.3 above is professional competencies for the training of leaders (Clark, 2016). This stage contains the skills, aids, and knowledge required for leaders to manage and direct the system and tasks. This level also shapes the mortar which links the pyramid together. Without acknowledging the specific skills, a part of the pyramid will start to collapse and then the institute will need to launch into damage control mode. Every organisation requires a highly variable set of specialised leadership competencies to cater for different situations and leaders at each position need a diverse set of knowledge and skills. Hence, leaders need to have the essential understanding of the processes and the system they control and they do not necessarily have to be experts in the job they direct. The competencies needed for training and learning professionals encompass

adult learning, rapid design, instructional design, consultation, and instruction (Clark, 2016).

To conclude, McClelland is one of the founders of the concept of competency. He pointed out that general intelligence testing has no real influence or impact on the organisation, and that competencies are more important in trying to make a difference in the organisations. Competencies defined by what the performers do and the types of competencies they possess, rather than just being defined as what they are doing. Competencies are very important tools to be utilised so that individual can possess the skills and knowledge required for current and future jobs.

1.4.1.2 Transformational Leadership Theory

The second theory that incorporated into the conceptual framework to support the study and leadership competency theory was the Transformational Leadership Theory. This theory is also known as relationship theory as it emphasises on the relationship between leaders and followers (Amanchukwu et al., 2015). James MacGregor Burns (1978) was the first psychologist who introduced this transforming notion into the concept of leadership and labelled it as “Transforming Leadership”. He stated that leaders and followers need to support one another to reach the highest stage of motivation and morale. This means that an individual (leader) can engage with others (followers) to make a connection with them to increase the morale and motivation of both parties (Amanchukwu et al., 2015). Burns also pointed out that “Transforming Leadership” is a much nobler leadership style if compared to charismatic leadership and executive leadership (Bolden, Gosling, Marturano, & Dennison, 2003).

Bernard Bass (1985) extended the works of Burns by replacing the term “Transforming Leadership” to another name called “Transformational Leadership”, which means that the leader seeks to transform the followers (Bolden et al., 2003). Bass presented the transformational form of administrative leadership as a style that contains social change, which was absent in Burns’ work. Bass further clarified that leaders who adopt the transformational leadership style could expand the range of needs for followers via several ways, such as the transformation of self-interest, development of confidence, elevation of expectations, increment of the value of outcomes desired by the leaders, encouragement towards behavioural modifications, motivation for individuals to attain the highest level of personal accomplishments (Bolden et al., 2003). Leaders who well versed with the transformational style of leadership would be able to transform and motivate their followers through their idealised effect, intellectual motivation, and individual consideration (Bass & Avolio, 1994, Yukl, 2013). They actively encourage their followers to find new techniques to defy the status quo and change the environment to achieve the desired success.

Leaders who apply transformational leadership are often displayed several behaviours that are associated with specific skills (Bass & Avolio, 1994; Yukl, 2013). They will portray certain behaviours which are closely related to the 5 transformational skills listed here, namely; 1) Idealised Behaviours, 2) Inspirational Motivation, 3) Idealised Attributes, 4) Intellectual Stimulation, and 5) Individualised Consideration (Bass & Avolio, 1994; Yukl, 2013). These behaviours presented in Figure 1.4.

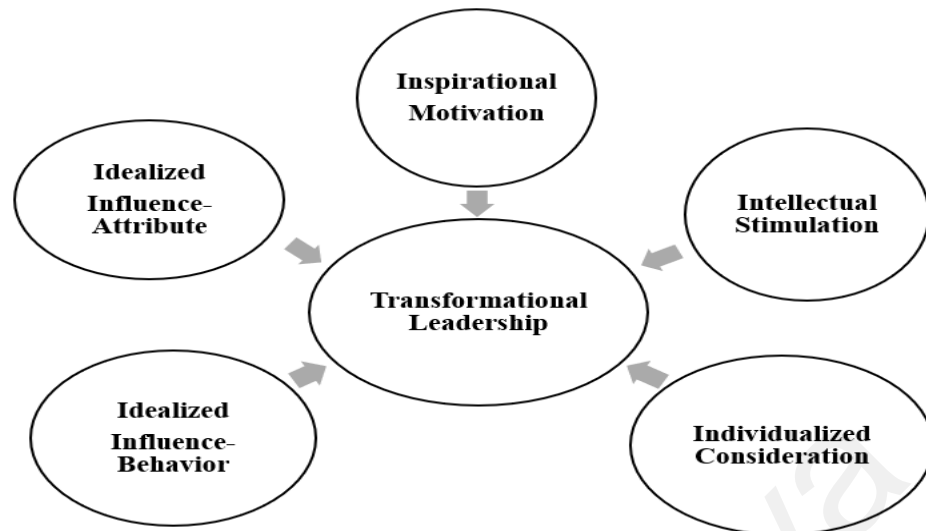


Figure 1.4. Transformational Leadership (Source: Bass & Avolio, 1994; Northouse, 2016, p.170)

According to Bass and Avolio (1994) and Yukl (2013), each of this skill set consists of specific behaviours that leaders must adopt in their daily interaction with their followers, as explained in the following sections:

1) Idealised Behaviours-This refers to one's living ideals. Leaders who apply this skill pay ample attention to their followers' values and beliefs, and also the ethical and moral consequences from their decision. They encourage their followers to have a powerful sense of purpose. They are also supportive of trying out new and exciting possibilities, and they always encourage their followers to trust one another (Bass & Avolio, 1994; Yukl, 2013).

2) Inspirational Motivation-This skill means that leaders are inspiring their followers. Leaders with this skill are highly confident, and they have an optimistic outlook about the future. They are often enthusiastic about what needs to achieve by offering an exciting and clear picture of what is substantial to consider in the pursuit of success.

They also prefer to take a stand in the event of controversies (Bass & Avolio, 1994; Yukl, 2013).

3) Intellectual Stimulation-This skill refers to how leaders are stimulating followers. Leaders tend to reassess any critical expectations to ascertain whether or not they are suitable. When solving difficulties and problems, they would explore different opinions and encourage other individuals to look at the problem from diverse angles as well. They often suggest novel methods for the completion of tasks by motivating their followers to develop non-familiar thinking in dealing with conventional issues. They also foster the rethinking of concepts, especially for matters that have never doubted before (Bass & Avolio, 1994; Yukl, 2013).

4) Individualised Consideration-Under this skill, leaders spend time coaching and teaching their followers. They treat their followers as individuals who have different abilities, needs, goals, and aspirations. They also listen attentively and give due consideration to their followers' concerns. They can help their followers to improve their strength and to enhance self-development. (Bass & Avolio, 1994; Yukl, 2013).

5) Idealised Attributes-A leader should trust, respect, and have faith in their followers. Leaders with this skill will strive to instil glory in their followers to connect with them. They overshoot the self-interest of followers for the benevolence of the individuals and reassure their followers that they will help them to overcome their obstacles. They present a sense of competence, influence, and authority to gain the respect of their followers. They are also willing to sacrifice certain things for the benefit of others. (Bass & Avolio, 1994; Yukl, 2013).

Clearly, transformational leadership is a theory that focuses on driving a favourable change among the followers besides taking care of every individual in the

institute. The primary purpose of transformational leadership is to transform the individual and organisation. This style of leadership helps to change people's heart and mind apart from increasing their understanding, vision, and awareness. It also simplifies this primary purpose by making sure that the behaviours correspond to the principles, beliefs, and values, which can result in permanent changes. Leaders following this leadership style stimulate the morale and motivation of the followers to improve their performance (Odumeru & Ogbonna, 2013). This kind of leadership inspires, stimulates, and motivates the individuals in an organisation. It helps everyone to realise the importance of tasks and to focus on individual performance to fulfil their potentials. It also emphasises respect, trusts, and, attention towards ethical standards in the daily operation of the organisation.

1.4.1.3 Transactional Leadership Theory

The third theory used in this study to support the theory of leadership competencies was the Transactional Leadership Theory. This theory is also known as "Managerial Leadership". Max Weber was the first psychologist who described this theory in 1947. Burns (1978) advanced Weber's theory of transactional leadership. Between the 1980s and 1990s, many researchers also accepted and further developed Weber's theory of transactional leadership, including Bass, Avolio, and Howell.

The leaders on transactional leadership theory emphasise the administration, organisation, supervision, and the performance of the group (Northouse, 2016). The leaders encourage the performance of their followers through rewards and punishments. They focused on contingent rewards (prizes) and contingent punishments (suspensions). Figure 1.5 outlines the concept of transactional leadership.

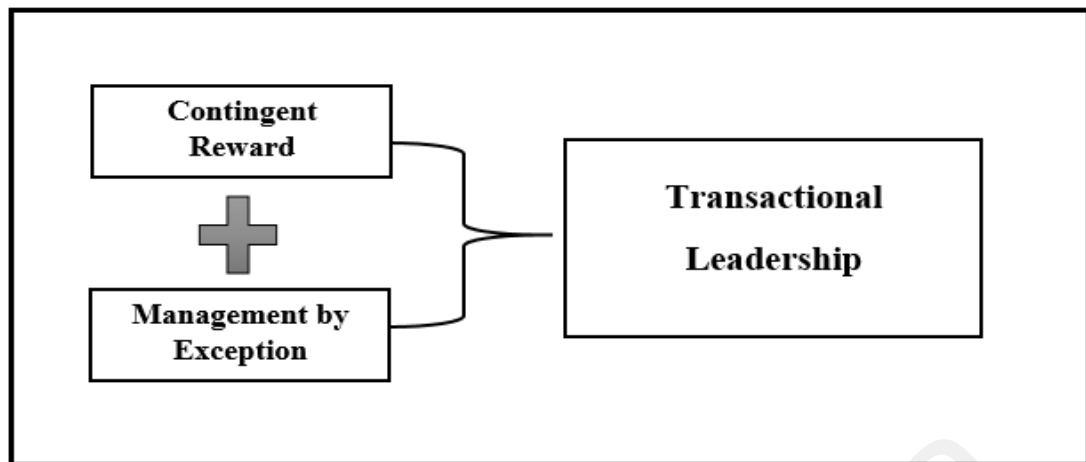


Figure 1.5. Transactional Leadership (Source: Bass & Avolio, 1994; Northouse, 2016, p.170)

Leaders following this style reward follower when they show positive results or desirable outcomes (Northouse, 2016). On the other hand, the followers will punish if they show poor performance or disappointing outcomes (Amanchukwu et al., 2015; Odumeru & Ogbonna, 2013; Sultana, Darun, & Yao, 2015). Under this leadership style, the leaders use rewards and punishments to ensure their followers.

On the downside, leaders following this style usually prefer for things to stay the same way rather than seeking changes for a better future. They often think “inside the box” in a conventional way when trying to solve problems. They accept fully the objectives, structures, and organisational culture without any questions asked. This style of leadership can be beneficial and effective in certain situations that do not allow prolonged deliberations, such as crisis, emergency, and when the project needs to carry out in a particular way.

Finally, the two keywords in transactional leadership theory are rewards and punishments. Leaders will ask the individuals to follow the rules and reward them accordingly, and in contrast, they will get punished if disobey the laws. The most

crucial focus in this leadership style is task completion and full adherence to the instructions. Moreover, it emphasises on providing sufficient support to the lower-level staff to achieve effectiveness in the workplace.

1.4.2 Theoretical Model of Organisational Culture

1.4.2.1 Organisational Culture Assessment Instrument (OCAI)

This study adopted the theoretical model of organisational culture to formulate the conceptual framework. The researcher applied the theoretical model, called the organisational culture assessment instrument (OCAI), to assess the organisational culture of higher education institutions. Cameron and Quinn developed the OCAI in 2000 and then updated in 2011. This model was used to evaluate the six different dimensions under OCAI (Cameron, & Quinn, 2011). These six dimensions are: dominant characteristics, organisational leadership, management of employees, organisational glue, strategic emphasis, and criteria of success. Figure 1.6 below illustrates the six dimensions of OCAI.

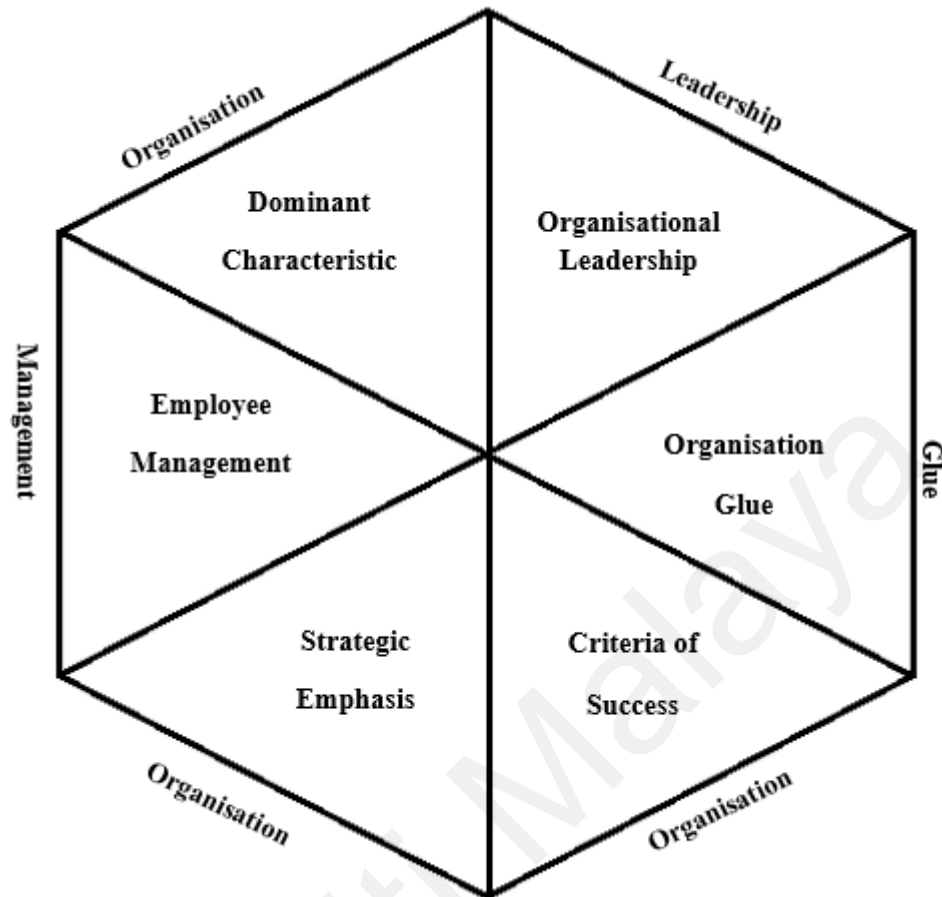


Figure 1.6. Six Key Dimensions of OCAI (Source: Cameron & Quinn, 2011, p. 251)

The OCAI provides a clear insight for the leaders on how an organisation operates (Cameron & Quinn, 2011). This instrument is helpful in determining the different ways that can be adapted to change the culture and organisation. The OCAI comprises 6 dimensions or questions. Each question subdivided into a, b, c, and d. Moreover, these 4 sub-questions refer to the 4 different kinds of culture that exist within the organisation; namely Clan Culture, Adhocracy Culture, Market Culture, and Hierarchy Culture (Cameron & Quinn, 2011). A total of 100 points divided among these 4 sub-questions. The highest number of points would be given to the questions that are most alike to the organisation, and the total points should be equal to 100 points for every question. Besides using the 100 points in the scale, they can also utilise

the 5-point or 7-point Likert scale (Cameron, & Quinn, 2011; Quinn & Spreitzer, 1991; Yeung, Brockbank, & Ulrich, 1991). In other words, the researchers are free to utilise any statistical technique of rating based on the nature of research.

Besides, this instrument divided into two phases. The first one is labelled as “Now” and respondents expected to answer the questions in this phase based on the culture that exists now. The second one is labelled as “Preferred” and should be answered based on how the individuals in the organisation desire to be with the organisation for five years from now (Cameron & Quinn, 2011). These phases considered as a guideline that allows academic leaders to recognise the organisational culture in their institutes. It also enables them to realise the importance of organisational culture in terms of improving the performance of the institutes and enhancing students’ learning outcomes.

This model is suitable to be applied to higher education institutions (Alshibani & Alatwi, 2011; Vasyakin et al., 2016). It has been used in 60 doctoral dissertations and also applied in different countries around the world (Alshibani & Alatwi, 2011). Although there are increasingly new models and instruments developed to assess organisational culture, the OCAI is still the most appropriate instrument for higher education institutions (Alshibani & Alatwi, 2011; Vasyakin et al., 2016). Therefore, this study adopted this instrument to assess how higher education institutions are operating and whether the organisational culture has a mediating effect on leadership competencies and the outcomes of student’s learning in higher education institutions.

1.4.3 Theoretical Model and Theories Related to Students' learning

1.4.3.1 Cognitive, Skill-Based, and Affective Theories of Learning

Outcomes

Theories related to students' learning outcomes have used to formulate models of learning outcomes. In this study, a theoretical model applied to develop the conceptual framework based on the Cognitive theory, Skill-Based theory, and Affective theory of Learning Outcomes. Kraiger, Ford, and Salas developed this model about learning outcomes in 1993 and labelled it as the *Classification Scheme of Learning Outcomes*. This model was advanced based on three theories of learning outcomes; namely Cognitive theory, Skill-based theory, and Affective theory.

However, Kraiger et al. (1993) pointed out that there is no conceptual model to guide individuals in the evaluation of learning outcomes. Thus, they developed a classification scheme for the assessment of learning outcomes based on the taxonomies of Bloom's 1956 and Gagne's 1984. From the taxonomies, Kraiger and his colleagues proposed an integrated classification scheme of learning outcomes. Figure 1.7 explains the classification scheme of learning outcomes.

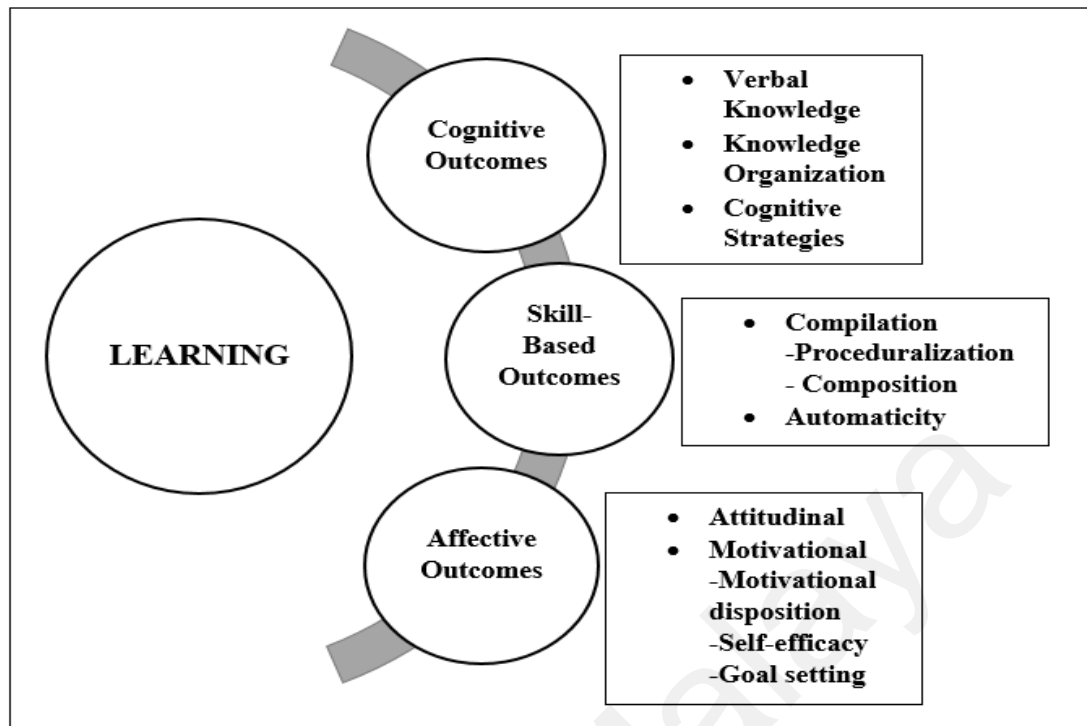


Figure 1.7. A Preliminary Classification Scheme of Learning Outcomes (Source: Kraiger et al., 1993, p. 312)

Following that, Kraiger et al. (1993) indicated that learning categorised under any of the 3 outcomes which are: (a) cognitive outcome, (b) skill-based outcome, and (c) affective outcome. Each outcome involves specific sets and foci of measurement. Under the first category of the cognitive outcome, the set of classification includes verbal knowledge, knowledge organisation, and cognitive strategies. The second category is the skill-based outcome, which comprises compilation and automaticity measures. The final category is the affective outcome that encompasses attitudinal outcomes and motivational outcomes. Attitudinal outcomes refer to attitude strength, while motivational outcome refers to disposition, goal setting, and self-efficacy (Kraiger et al., 1993).

It is vital to note that learning outcomes are very significant due to their role in developing instructional strategies and creating learning objectives (Kraiger et al.,

1993). Learning outcomes are not the same as learning objectives in the sense that learning outcomes refer to the goals of the instructional planner while learning objectives indicate what the learner will be able to achieve after finishing the training or programme (Kraiger et al., 1993).

In summary, learning is an agent of change in various states, including cognitive state, skill-based state, and affective state. Therefore, the measurement of learning outcomes focused on 3 significant elements from the perspective of cognitive outcomes, skill-based outcomes, and affective outcomes. In other words, this measurement refers to the knowledge, skills, motivations and attitudes of the learners, all of which are essential components in the identification of the learning outcomes of the individuals.

1.4.3.2 Theory of Students' Involvement

The next theory relevant to this study was the Theory of Students' Involvement in higher education institutions. This is the last theory used to formulate the conceptual framework to support the research. This theory was developed by Alexander Astin in 1984 to illustrate the importance of students' involvement in colleges. It describes how the outcomes of higher education institutions can observe in relation to how college students develop and change as a result of co-curricular involvement. Astin (1984) also defined students' involvement as the amount of energy that students spent on studying, participating in campus activities and student organisations, cooperating with other students, interacting with faculty members and other involvements.

Based on his theory, Astin (1984) created the I-E-O model, which is based on 3 important elements; namely, inputs, environment, and outcomes (Astin, 1984).

Inputs refer to students' background, demographics, and their previous experiences. The second element, environment, relates to the experiences that students gain during their tenure at college. The last element indicates the students' outcomes upon graduation, which include their values, attitudes, beliefs, knowledge, and characteristics (Astin, 1984), which explains the 3 different elements in Figure 1.8.

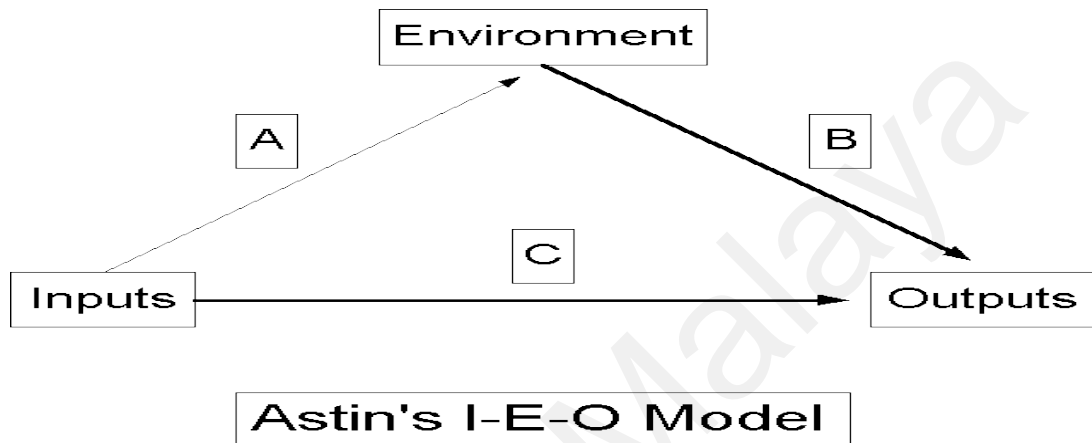


Figure 1.8. Elements of Astin's Theory of Student's Involvement (Source: Astin, 1984)

Furthermore, Astin (1984) mentioned five assumptions related to students' involvements. These assumptions are: (1) Involvement in college which requires physical energy and psychological investment, (2) The quantity of investment is different from one student to another, (3) The involvement feature can be qualitative and quantitative in nature, (4) What students obtained from their involvement in the college is directly related to the extent of their involvement from both the quantity and quality aspects, and (5) Academic performance is highly associated with the students' involvement in college.

To elaborate further, Astin (1984) stated that this theory is related to the traditional pedagogical theories which incorporate subject matter theory, individualisation theory, and resource theory. He believed that his theory could provide a link between the variables highlighted in traditional pedagogical theories

and the outcomes desired by faculty members and students in this era. The involvement theory which emphasises on the investment of students' energy to achieve the desired development and outcomes has replaced the concept of black box that previously appeared under the traditional theories.

This new theory helps the educators to focus more on what students do, especially in terms of how students are motivated and how much energy are college students using in their learning process (Astin, 1984). The theory argues that students' development will not be remarkable if only the academicians focus exclusively on teaching methods, books, course content, and laboratory features. In actual fact, students' involvement is more important and useful to improve learning outcomes than the resources and techniques used by educators (Astin, 1984).

An important hypothesis of Astin's Involvement Theory is that the efficiency of educational practises or policy connected to the ability of these practices or policies to develop students' involvement. Therefore, these educational practices and policies evaluated in turn based on their success in increasing students' involvement (Astin, 1984). Academicians and all the staff in the higher education institutions can also be assessed based on the degree to which they can engage the students to be involved effectively in their learning journey to enhance their college experiences (Astin, 1984).

Accordingly, academic leaders must help students in higher education to be effectively involved in the campus. Students' involvement in the college campus may lead to an increase in their academic performance as a desirable outcome. This signifies that leadership has an impact on students' academic performance and their outcomes. Likewise, Soares and Lopes (2020) indicated that academic leadership has a positive impact on students' academic performance in higher education.

Accordingly, Alnawasreh, Nor and Suliman (2019), Balwant, Birdi, Stephan, and Topakas (2019) and Cha, Calleja, Mendoza, Yupangco, and Ferrer (2019) also indicated that the style or skills of leadership has an impact on students' academic performance. Therefore, as stated by Astin (1986), academic leaders must help students to be involved in the campus, as this will encourage students in higher education to improve their outcomes especially their academic performance.

Ultimately, this theory is vital for higher education institutions. It provides strong evidence to encourage co-curricular involvement of college students. In addition, it indicates the amount and the quality of psychological and physical energy that higher education students invest in their college life. Thus, faculty members and academic leaders must strive to transform the learning environment into a more successful and productive setting for higher education students.

1.4.4 Summary of the Theoretical Foundation of the Study

The theories mentioned above and models will provide academic leaders with sufficient information to become competent leaders who can impact positively on students' learning outcomes. Besides, taking the results of (Alfraih, 2014; Balwant, 2016; Leithwood & Jantzi, 2008; Leithwood & Jantzi, 2000; Leithwood et al., 2010; Pina et al., 2015) into consideration, will be more helpful in creating the rational and the theoretical foundation of the study. These studies clarified that educational leaders could impact positively on students' learning outcomes by considering mediate elements. Leithwood and Jantzi (2000) indicated in their study that organisational culture has a mediating role between transformational leadership and student engagement. They pointed out that transformational leadership indirectly impacts on student engagement. This result implied that organisational culture plays a mediating role which helps leadership to impact positively on students.

Additionally, Alfraih (2014), investigated about the direct and indirect effects of principals' transformational leadership style on students' outcomes, students' achievement, and their engagement through numbers of mediating variables such as the culture of the school. Alfraih (2014) found that these mediating elements, such as school culture, can mediate the effect between leaders and students' outcomes. Balwant (2016) also found from conducting a meta-analytic review in higher education that the transformational instructor-leadership positively connected to students' outcomes including their cognitive, affective, motivation, satisfaction, perceptions of instructor credibility, and academic performance. The study also found that culture and other moderators variables have significant moderators' effect on the association between transformational instructor-leadership and particular outcomes of students.

Therefore, the previous studies pointed out that organisational culture plays a mediation role between the effect of leadership on students' outcomes in the education sector. Based on the above discussion and taking all these theories and studies into consideration, the researcher formulated the theoretical foundation of the study and presented it in Figure 1.9 below.

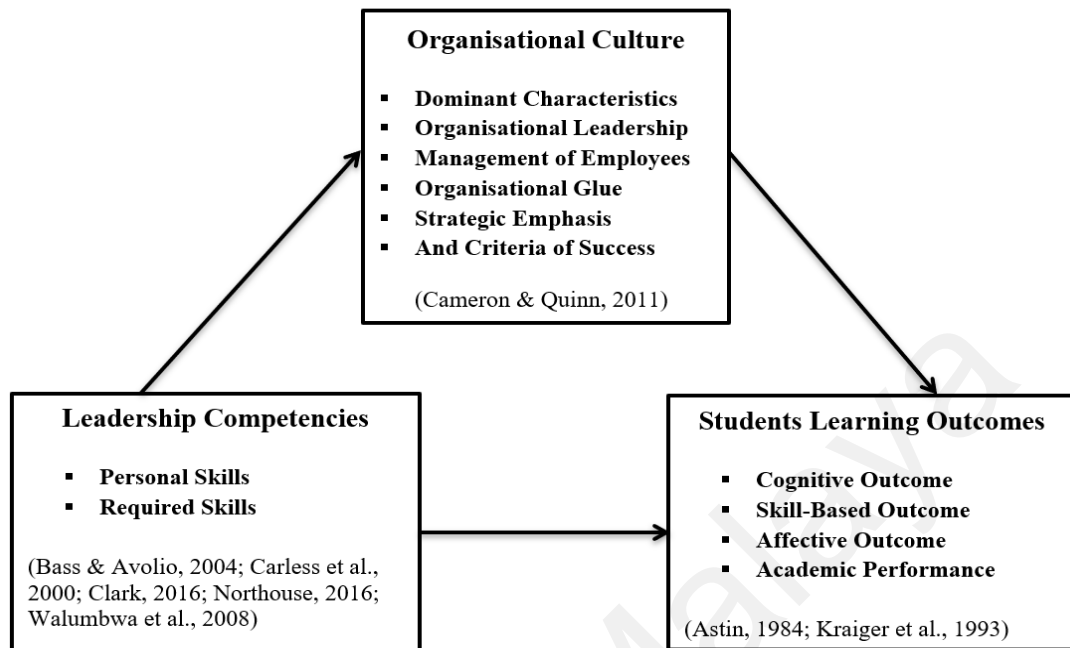


Figure 1.9. The Theoretical Foundation of The Study

Based on the theoretical foundation that showed in Figure 1.9 above, the conceptual framework formulated in the bases of the mediation effect of organisational culture on leadership competencies and students learning outcomes. The following section included more detailed regarding the conceptual framework of the study.

1.5 Conceptual Framework of the Study

All the theories mentioned above and theoretical models shaped the conceptual framework for this study. In this conceptual framework, the researcher identified the relationship between leadership competencies, organisational culture, and the outcomes of students' learning at the higher education institutions. The researcher connected the three variables based on the results of previous studies including, Alfraih (2014), Balwant (2016), Bell et al. (2003), Hallinger and Heck (1996), Leithwood and Jantzi, (2000) and Li et al. (2018). This framework explained how the leaders'

competencies helped in producing competent academic leaders who can understand the significant role of organisational culture and utilise it to maximise the students' learning outcomes in higher education institutions in the Kingdom of Saudi Arabia. To achieve the desired competencies, academic leaders should be familiar with the theories of leadership, the theoretical model of organisational culture, and theories of students' learning outcomes and involvement in the higher education institutions.

Furthermore, competent academic leaders need to understand the mediating effect of organisational culture in higher education institutions. They have to utilise instruments and models related to the organisational culture that can help them to understand the type of culture and to recognise the strengths and weaknesses that exist within their organisation. This allows the leaders to fully embrace the concept of organisational culture and use it effectively and positively to enhance students' learning outcomes. These theories and models provided competent leaders with sufficient information to become competent academic leaders who can transform students' learning outcomes to elevate the quality of higher education institutions. Taking all the theories presented in the theoretical foundation in Figure 1.9 above into consideration, the researcher formulated the overall conceptual framework of this study and outlined more details in Figure 1.10 below.

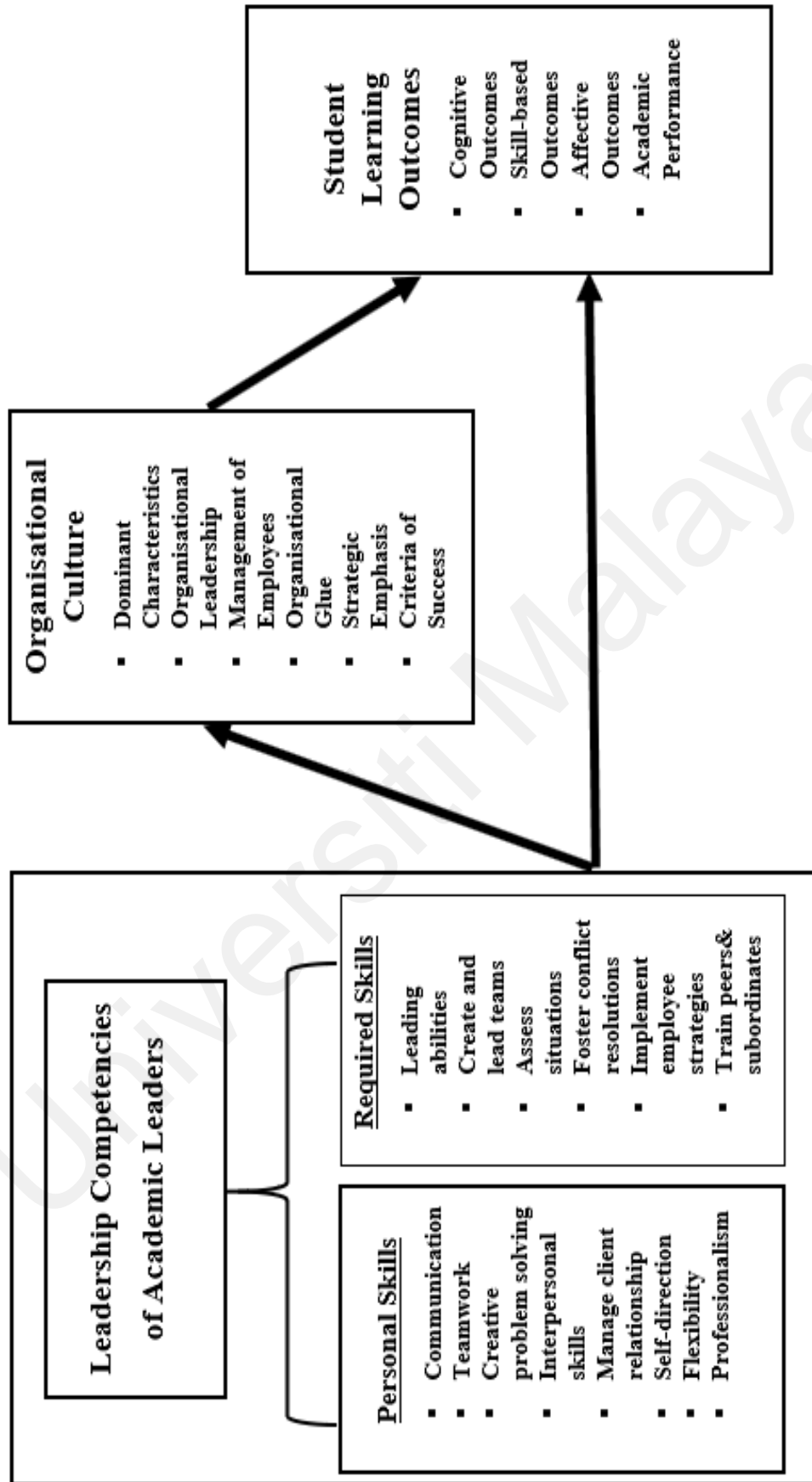


Figure 1.10. Conceptual Framework of the Study (Source: Astin, 1984; Bass & Avolio, 2004; Cameron & Quinn, 2011; Carless et al., 2000; Clark, 2016; Kraiger et al., 1993; Northouse, 2016; Walumbwa et al., 2008)

The first section of the conceptual framework above (Figure 1.10) contains components that are related to the theory of leadership competency. Academic leaders need to adapt to this theory to increase their level of competencies and to understand the organisational culture effectively so that they can enhance the students' learning outcomes in higher education institutions. When academic leaders implement the components related to Leadership Competency Theory and the Pyramid of Leadership, they will be poised to be a sufficiently competent leader (Carless et al., 2000; Northouse, 2016; Shahmandi et al., 2013). The components related to leadership competencies are those that represent the personal skills of leaders while at the same time, exemplify the required skills of leaders (Clark, 2016).

By applying these components which are related to leadership competencies, academic leaders will become competent leaders who can reap benefits from the organisational culture and institute desired changes such as improvement of students' identity, the increment of students' involvement in college life, and development of their learning outcomes. Upon achieving these competencies, competent academic leaders will have the right set of personal and required skills. These skills considered as competencies that allow academic leaders to transform their organisation to enhance the performance of higher education institutions and students' learning outcomes.

Undoubtedly, the conceptual framework also involves the competency theory of leadership. This is one of the theories that can help academic leaders to be competent in their work to achieve the desired competencies. This theory suggests that skills, knowledge, personal characteristics such as traits, values, self-concept, and motives are essential components for a competent leader to possess (McClelland, 1973; Vazirani, 2010). It has shown that academic leaders who follow the first 2 levels of

skills in the pyramid of leadership often end up being successful in higher education institutions.

Moreover, the application of transformational and transactional leadership theories in academic leadership is one of the best techniques to improve leadership competencies in higher education institutions. A study by Carless et al. (2000) stated that the measurement of leadership competencies based on leadership behaviours such as transformational and transactional leadership behaviours. The same study also indicated that leadership competencies could be measured using MLQ developed by Bass and Avolio (1994), which focused on measuring competencies based on transformational and transactional leadership styles. Other studies have also highlighted the relationship between leadership competencies and leadership styles (Shahmandi et al., 2013; Spendlove, 2007). Moreover, previous literature has reported that transformational and transactional leadership work best in the educational and academic settings (Alfraih, 2014; Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Leithwood et al., 2010; Leithwood & Jantzi, 2006; Pina et al., 2015; Robinson et al., 2008; Southwell & Morgan, 2009). Hence, this study emphasised on transformational and transactional leadership as a behaviour that academic leaders can adopt to increase their leadership competencies (skills) in higher education institutions.

The transformational theory emphasises on the correlation between the leader and followers. Leaders work towards the aim of increasing the morale and motivation of the followers (Burn, 1978; Northouse, 2016). They apply several behaviours such as idealised attributes, individualised consideration, motivation, intellectual stimulation, inspirational, and behaviours to transform their followers to achieve the desired change (Bass & Avolio, 1994; Northouse, 2016; Yulk, 2013). Adopting the

features of transformational leadership theory will enable academic leaders to be more competent, thus leading to the transformation of the staff, students, and organisation.

Apart from transformational theory, the transactional theory is also one of the conventional theories in leadership. Most leaders in higher education improve the performance of their followers through rewards or punishments (Sultana et al., 2015; Northouse, 2016). This leadership can be beneficial and useful in specific situations such as crisis, emergency, and when the project needs to conduct in a particular way. Under this style, leaders need to ask individuals to abide by the rules and instructions and reward them. Their followers will punish if they fail to follow the rules. The emphasis here is to provide support to the lower level staff to ensure effectiveness in the workplace and to guarantee short-term outcomes (Amanchukwu et al., 2015; Odumeru & Ogbonna, 2013; Sultana et al., 2015). As this approach of reward and punishment has found to be an effective tool in the educational environment, some people believe that the adoption of this theory by academic leaders will ensure the work quality and quality of higher education among the students.

Academic leaders are encouraged to apply both transformational and transactional leadership theories in their work to be competent leaders (Carless et al., 2000). Therefore, this study utilised the MLQ from Bass and Avolio (1994) to measure the behaviours and skills of academic leaders to evaluate their leadership competencies as suggested by Carless et al. (2000). Besides, the study applied the Skill Inventory (Northouse, 2016), the Authentic Leadership Questionnaire (ALQ) (Walumbwa et al., 2008), and the Leadership Trait Questionnaire (LTQ) (Northouse, 2016) to measure the competencies (skills) of leadership. Clearly, the Skill Inventory, ALQ, and LTQ used to measure the personal skills of leaders, while, the MLQ used to measure the

required skills of leaders. These instruments used to measure the competencies (skills) of leaders as suggested by Carless et al. (2000).

Besides, organisational culture is known to be a mediator in the relationship between leadership and the outcomes of the institutions (Giritli et al., 2013; Li et al., 2018; Mozaffari, 2008; Ogbonna & Harris, 2000; Schein, 1992; Schimmoeller, 2010; Zehir et al., 2011). It also mediates the effect between transformational and transactional leadership, and the performance and outcomes of the institutions (Giritli et al., 2013; Li et al., 2018; Zehir et al., 2011). Furthermore, a number of studies have highlighted that organisational culture affects the performance of the organisation (Martinez et al., 2015). Many studies have indicated that there is a relationship between organisational culture and the successful improvement of outcomes, the creativity of faculty members and development of different ways to enhance students' learning outcomes (Alsarahani, 2012; Fralinger & Olson, 2007; Sakarnah, 2009; Vasyakin et al., 2016).

Hence, competent leaders should be aware of the mediating role of organisational culture, as it can exert a significant influence on how the organisations respond to the changing demands in their environment (Sheikhalizadeh & Piralaui, 2017). In other words, organisational culture is highly very crucial for competent leaders. Any competent academic leaders must be able to realise and utilise the organisational culture positively to improve both the organisation and students' learning outcomes. Moreover, they have to understand the mediating effect of organisational culture between competent academic leaders and students' learning outcomes in higher education institutions. Many previous studies have emphasised that organisational culture also mediated between leadership (transformational and

transactional) and the outcomes of the institution (Giritli et al., 2013; Li et al., 2018; Zehir et al., 2011).

Furthermore, studies have found that the two types of leadership (transformational and transactional) are related to 2 types of culture (Clan and Adhocracy) in the context of higher education. These two types of culture identified using the OCAI (Cameron & Quinn, 2011). Based on this, the researcher adopted the OCAI by Cameron and Quinn (2011) to create a clear picture on how Saudi higher education institutions are operating and to evaluate the values that characterised them. The OCAI encompasses the 6 dimensions of organisational culture aims to highlight which type of culture influences the higher education institutions at the current moment. The 6 dimensions are, dominant characteristics, management of employees, organisational leadership, strategic emphasis, organisational glue, and criteria of success (Cameron & Quinn, 2011). These dimensions are very crucial to understand the organisation culture, whether it is clan, adhocracy, market, or hierarchy culture. Understanding the type of culture within an organisation allows competent leaders to generate the desired change.

The OCAI assessment is appropriate for the higher education sector as it has been used in 60 doctoral dissertations and applied widely in different countries around the world (Alshibani & Alatwi, 2011; Cameron & Quinn, 2011; Vasyakin et al., 2016). This theoretical model will provide a clear insight into the organisational culture in higher education in the Kingdom of Saudi Arabia and subsequently help the academic leaders to make changes and improve the performance and students' learning outcomes. As a result, academic leaders encouraged to utilise organisational culture as

a mediator that allows them to enhance students' learning outcomes and thus, creating a difference in the institutions.

Previous literature has emphasised that academic leadership can impact on students' outcomes (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Gill et al., 2009; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008). Thus, competent academic leaders must be knowledgeable about theories that are related to students' learning, such as cognitive theory, skill-based theory, and affective theory. Academic leaders also need to be familiar with the classification scheme of assessing the learning outcomes developed by Kraiger et al. (1993). It based on cognitive (knowledge), skill-based outcomes, and affective outcomes (attitudes and motivations). Based on this, competent academic leaders expected to assess students' learning outcomes based on their knowledge, skills, attitudes, and motivations. They must also understand the organisational culture, which is directly related to the improvement of students' academic performance and learning outcomes.

There are also other theories related to students' learning outcomes. These theories are similarly important to be considered by competent academic leaders. One of such theory is the Theory of Students' Involvement by Astin which stated that the understanding of students' involvement in college would help academic leaders to be competent leaders so that they can increase student's involvement and subsequently their academic performance. This theory highlights the need for competent academic leaders to be aware that students' involvement in college actives is more significant and useful than just focusing on the resources in the college and techniques used by lecturers in the quest to improve their learning outcomes (Astin, 1984). As the educational practices and policies can be assessed based on their ability in reducing or

increasing students' involvement, thus academic leaders can also evaluate the degree to which they can offer support for students to be engaged and involved actively in the college experiences (Astin, 1984).

Therefore, the theory of students' involvement will help academic leaders to transform the learning environment into a more practical setting for higher education students to enhance their academic performance. Additionally, competent academic leaders must encourage students to invest part of their psychological and physical energy in their college life to increase their academic performance. Astin (1984) pointed out that students' academic performance is highly connected to the students' involvement in higher education institutions. Thus, the competencies of academic leaders are also highly related to the degree to which they can support higher education students to be engaged and involved in the college experience. Moreover, the outcomes of higher education could observe in relation to how higher education students can change and develop themselves after their co-curricular involvement. This theory highlighted that the amount of students' learning and personal development is often proportional to their level of involvement in the college. Thus, academic leaders in higher education need to take into account of this theory so that they can ensure excellent outcomes in students' academic performance.

All the theories mentioned above and theoretical models are effective in higher educational institutions. The incorporation of the above theories and models in academic leadership will ensure the academic leaders develop the necessary competencies. They need these theories and models to guide staff and students to remove the obstacles along the path towards achieving the desired goal. If all these are well implemented, it will likely lead to performance improvement in higher education institutions. Simultaneously, when academic leaders meet the desired leadership

competencies in higher education, they will also attain the required quality of learning outcomes for higher education students in the Kingdom of Saudi Arabia. The outcomes to be focused on would include cognitive learning (knowledge) outcomes, skill-based outcomes, affective learning outcomes (attitudes and motivations) and academic performance. After assessing the students' learning outcomes, competent academic leaders should aim to make a difference that can change the organisation by creating useful instructional strategies to establish successful learning objectives.

To conclude, competent academic leaders should possess leadership competencies that can help them to transform higher education institutions. In other words, competent academic leaders are the main agent of change or the main component in making differences in the institutes. They should tap into the organisational culture to facilitate the improvement in the performance and students' learning outcomes in the higher education institutions. They should also be clear about the mediating role of organisational culture and utilise it effectively to reach the desired outcomes of students learning outcomes.

Based on the above discussion, the researcher formulated the following objectives, research questions and hypotheses of the study.

1.6 Research Objectives

The research objectives are to:

1. Identify the level of leadership competencies of academic leaders in selected Saudi higher education institutions.
2. Identify the type of organisational culture that is being practised currently by selected Saudi higher education institutions.

3. Identify the level of students' learning outcomes in selected Saudi higher education institutions.
4. Examine the direct and significant effect of leadership competencies of academic leaders on students' learning outcomes in selected Saudi higher education institutions.
5. Examine the direct and significant effect of organisational culture on students' learning outcomes in selected Saudi higher education institutions.
6. Examine if the organisational culture is a mediator that has a significant effect on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions.

1.7 Research Questions

1. What is the level of leadership competencies of academic leaders in selected Saudi higher education institutions?
2. What type of organisational culture is being practised currently by selected Saudi higher education institutions?
3. At what level are student learning outcomes in selected Saudi higher education institutions?
4. Do the leadership competencies of academic leaders have a direct and significant effect on student learning outcomes in selected Saudi higher education institutions?
5. Does organisational culture have a direct and significant effect on student learning outcomes in selected Saudi higher education institutions?

6. Is organisational culture a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and student learning outcomes in selected Saudi higher education institutions?

1.8 Research Hypotheses

The current study formulated three null hypotheses and three alternative hypotheses to answer research questions 4, 5, and 6. H_{01} and H_1 formulated to answer research question 4, while H_{02} and H_2 formulated to answer research question 5, and H_{03} and H_3 formulated to answer research question 6. The following section included more details regarding research hypotheses. Figure 1.11 displays the hypothesised model of the study.

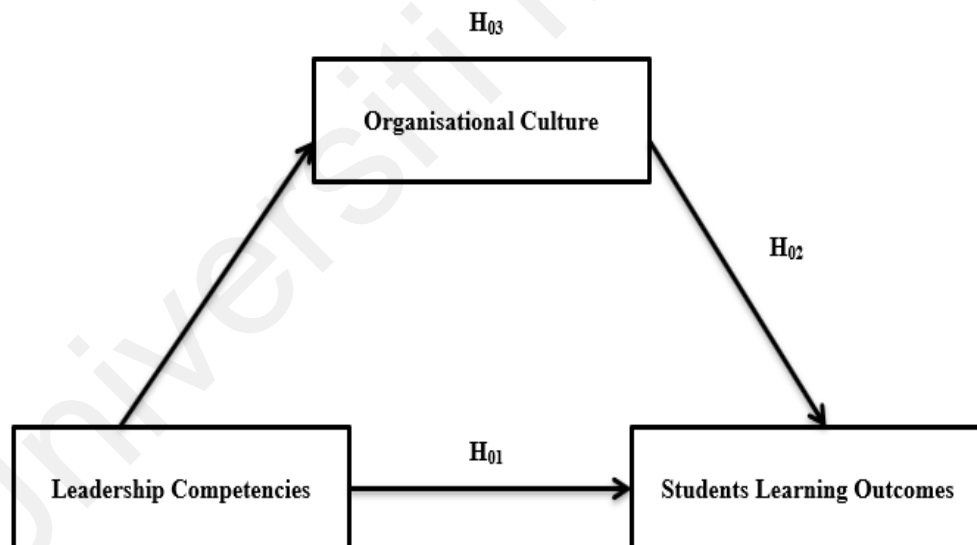


Figure 1.11. Hypothesised Model of the Study

Clearly, the researcher formulated H_{01} and H_1 to answer research question 4 (do the leadership competencies of academic leaders have a direct and significant

effect on the outcomes of student learning in selected Saudi higher education institutions?) as follow:

H₀₁: There is no direct and significant effect of leadership competencies of academic leaders on students' learning outcomes in selected Saudi higher education institutions.

H₁: There is a direct and significant effect of leadership competencies of academic leaders on students' learning outcomes in selected Saudi higher education institutions.

To answer research question 5 (does organisational culture have a direct and significant effect on student learning outcomes in Saudi higher education institutions?) the researcher formulated H₀₂ and H₂ as follow:

H₀₂: There is no direct and significant effect of organisational culture on students' learning outcomes in selected Saudi higher education institutions.

H₂: There is a direct and significant effect of organisational culture on students' learning outcomes in selected Saudi higher education institutions.

To answer research question 6 (is organisational culture a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and student learning outcomes in selected Saudi higher education institutions?) the researcher formulated H₀₃ and H₃ as follow:

H₀₃: Organisational culture is not a mediator that has a significant effect on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions.

H₃: Organisational culture is a mediator that has a significant effect on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions.

1.9 Rationale for the Study

To reiterate, the purpose of this study was to examine the mediating effect of organisational culture on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions. Besides, this study examined the effect of leadership competencies of academic leaders on the outcomes of students' learning in terms of their cognitive outcomes, the outcomes of skill-based, affective outcomes, and academic performance. Moreover, it analysed the effect of organisational culture on students' cognitive, skilled-based, affective outcomes and their academic performance. Hence, the results of this study provided recommendations to academic leaders who aspire to develop the necessary competencies to achieve an improvement in the performance of their higher education institutions.

There has been a lack of strategies or criteria for competent academic leaders in higher education institutions in the published literature (Alboti, 2014; Alhojeli, 2010; Spendlove, 2007). Moreover, previous literatures have highlighted that only minimal studies found on the impact of academic leadership on students' learning outcomes in the higher education sector (Alboti, 2014; Alhojeli, 2010; Balwant, 2016; Deore & Ratnalikar, 2010; Ghasemy et al., 2016; Lieff et al., 2016; Pomeda & Casani, 2013; Spendlove, 2007). In addition, the earlier studies that have conducted in the Kingdom of Saudi Arabia failed to mention about the relationship between competent academic leaders and organisational culture (Alboti, 2014; Alsarahani, 2012; Sakarnah, 2009; Saudi Digital Library, 2018). Furthermore, no study on the effect and relationship between competent academic leaders and students' learning outcomes in the higher education institutions has ever conducted in the Kingdom (King Fahad National Library, 2019; Saudi Digital Library, 2018; Saudi Ministry of Education,

2018) (APPENDIX A). Most of the previous studies focused on identifying the competencies of academic leaders from their perspectives or the viewpoint of faculty members. There were a few studies on organisational culture in the sector of higher education, but none of these studies investigated the impact of organisational culture on the performance of the organisation and students' learning outcomes.

To the best of the researcher knowledge, up to date, no study has been conducted in the Kingdom of Saudi Arabia to examine the effect between leadership competencies, organisational culture, and students' learning outcomes (APPENDIX A) (King Fahad National Library, 2019; Saudi Digital Library, 2018; Saudi Ministry of Education, 2018). There is a lack of studies that combine these three variables to examine their effects on one another. This represents a clear research gap (APPENDIX A) (King Fahad National Library, 2019; Saudi Digital Library, 2018; Saudi Ministry of Education, 2018). In view of the issues plaguing the Saudi higher education sector, there is a need to examine the level of leadership competencies among the academic leaders. There is also a need to analyse how competent academic leaders are related to the outcomes of students' learning in terms of their cognitive skill, affective outcomes, and academic performance in higher education. It will be timely to conduct this research so that clear strategies and guidelines provided for academic leaders in Saudi higher education institutions.

Earlier studies have reported an indirect effect and relationship between leaders and students' learning outcomes (Al-Safran et al., 2014; Day et al., 2016; Gill et al., 2009; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008). Leaders can impact on students' learning indirectly through mediating elements that can help them to be more effective leaders (Balwant, 2016; Bell et al., 2003; Hallinger & Heck, 1996; Leithwood & Jantzi, 2000). Hence, to achieve desirable results from the relationship between

academic leaders and students, leaders need to consider mediating components that can help them to be more competent. One of such mediators that incorporated in this study is the organisational culture. Organisational culture has established as a mediating variable that enables leaders to enhance students' learning outcomes and to achieve the desired outcomes in the higher education sector.

In view of this, there is a need to conduct a study that focuses on identifying how academic leaders can utilise the concept of organisational culture to enhance the outcomes of students' learning. There is also a need to analyse the effect of organisational culture on students' learning outcomes. Undoubtedly, competent academic leaders need clear guidelines and strategies to follow to understand the organisational culture so that they can enhance students' learning outcomes and ultimately improve the performance of Saudi higher education institutions. As a summary, the results of this study provided useful recommendations for academic leaders in higher education institutions in terms of developing a lasting solution for the transformation and performance improvement of higher education institutions.

1.10 Significance of the Study

This study has the potential to reflect positively on the academic leaders and students from higher education in the Kingdom of Saudi Arabia. This study is important to conduct in the Jazan province regarding leadership competencies of academic leaders, organisational culture, and students' learning outcomes at the higher education institutions. All these issues have been reviewed and reported separately in the literature. Hence, this study is important in terms of examining the effect between these three variables at selected Saudi higher education institutions (Jazan province).

Jazan province is one of the most important cities from the aspect of economic growth in the Kingdom of Saudi Arabia. Its importance is back for several reasons. First, it has Jazan Economy City established by King Abdullah in 2006 and focused on the manufacturing and energy industries. Second, it has a remarkable investment benefits for its economy city, due to its close to the seaport and far from crowded urban communities. Third, this seaport is the third most essential seaport (Jazan Seaport) in the Kingdom which is considered an important for the global trade through the Red Sea, and services market for Asia, Europe, and East Africa. Fourth, it has a strategic location for the Kingdom from the south-west side of the sea borders. Fifth, it has many strategically important islands such as, Farasan Island that is considered a tourist destination. Finally, this economy city is estimated 500.000 new jobs opportunities in the future (Royal Commission for Jubail & Yanbu, 2019).

Therefore, higher education institutions in Jazan Province are responsible for producing highly qualified graduates who can contribute to the economic growth in the province (Saudi Ministry of Education, 2018). To do so, Jazan province needs the support from Ministry of Education and from researchers who can provide the necessary evidence and tools to enable the higher education leaders in implementing the required changes to enhance students' learning outcomes (Saudi Ministry of Education, 2018). Even though the study has limited to Jazan province due to financial constraints, the findings can be shared with higher education institutions in other provinces in the Kingdom of Saudi Arabia as these institutions share many similar features (Saudi Ministry of Education, 2018).

Moreover, higher educational leaders such as rectors, deans of faculties and heads of departments must be aware of the competencies that they should possess to understand and maximise the use of organisational culture to enhance students'

learning outcomes. It will benefit the higher education in the Kingdom of Saudi Arabia as this study helped in clarifying the specific competencies that expected of higher education leaders. This can also serve as the criteria for academic leaders who aspire to hold the administrative position at their workplaces. Furthermore, the findings provided solutions to challenges faced by the Saudi higher education system with regard to developing students' cognitive learning outcomes, the outcomes of their skill-based, affective learning outcomes, and academic performance.

Last but not least, this study plays a significant role in supporting the Saudi New Vision 2030 for education via preparation of competent leaders who possess the desired competencies and can enhance students' learning outcomes and improve the performance of Saudi higher education institutions. Finally, the findings of this study contributed to the body of knowledge of the required competencies of academic leadership, organisational culture, and students' learning outcomes.

1.11 Limitation and Scope of the Study

This study restricted to the higher education institutions in the Jazan province, which located in the southern province of the Kingdom of Saudi Arabia. The study confined to the Jazan province due to the financial constraint of the researcher in conducting this study. To the best of researcher knowledge, there is a lack of studies regarding the current issue being a study in Jazan province. There are only two higher education institutes in this province and thus the study included both these institutes. Both comprise of 30 colleges, 111 departments and 3 institutes.

Furthermore, these selected two higher education institutes constitute a large number of students and staff. These institutions also shared many similar features in nature with other institutions located in other provinces of the Kingdom of Saudi

Arabia; thus, the findings would be generalisable. The sample population for this study were the faculty members in these selected institutions as this group of people have a direct relationship with both academic leaders and students, and they also exert direct and indirect effects on higher education system. The researcher applied a quantitative method and examined the mediating effect of organisational culture on leadership competencies of academic leaders and students' learning outcomes. It also identified the level of competencies among academic leaders and their significance in effecting the higher education students' learning outcomes. It also identified the level of students learning outcomes and the type of organisational culture that was being practised currently in selected Saudi higher education institutions.

1.12 Operational Definition

1.12.1 Leadership

In this study, leadership refers to the skill and ability of academic leaders to lead and transform higher education institution, to solve any arising problems, to improve students' learning outcomes, to inspire the individuals, and to build strong structure and culture. Moreover, it involves the process of driving the organisation to new ways and directions, the implementation of a new programme, problem-solving, quality development. Part of leadership involves being inspired and the construction of the appropriate framework and structure for the organisation (Davis, 2003). It also refers to how an individual is influenced by a group of people to achieve specific goals (Northouse, 2016).

1.12.2 Leadership Competencies

For the purpose of this study, leadership competencies refer to the personal and required skills of academic leaders to be able to utilise organisational culture

effectively and enhance students' learning outcomes in higher education. Personal skills refer to communication, teamwork, creative problem solving, interpersonal skills, self-direction, professionalism, and flexibility (Clark, 2016). The required skills of leaders refer to leadership abilities in creating and leading a team, quick and accurate assessment of the situation, fostering of conflict resolution, and coaching and training of peers and subordinates (Clark, 2016).

1.12.3 Academic Leaders

Academic leaders in this study refer to the heads of department who are holding positions as a leader in an academic setting in the higher education institutions (Sathye, 2004).

1.12.4 Organisational Culture

Organisational culture refers to the type of culture that is being practised currently in selected Saudi higher education institutions, whether it is Clan, Adhocracy, Market, or Hierarchy culture. It also refers to the behaviours, values, beliefs, attitudes, and principals of the individuals in the higher education institutions. Furthermore, it refers to the improvement of shared meaning and norms (Bush, 2011; Cameron & Quinn, 2011).

1.12.5 Students' Learning Outcomes

For the purpose of this study, the achievement of desired objectives in term of students' cognitive outcomes (knowledge), skill-based outcomes, affective outcomes (attitude and motivation), and their academic performance are all categorised as students' learning outcomes. It also refers to the desired learning goals that are set by educators at the Ministry of Education and schools (Hidden Curriculum, 2014).

1.13 Summary

This chapter introduced the main idea for this study. It clarified the background of study by focusing on the relationship between competencies of academic leaders, organisational culture, and students' learning outcomes in higher education institutions. It also comprised several theories and theoretical models used to formulate the conceptual framework to support this study. The objectives, questions, and hypotheses also included. The significance of the study also outlined in this chapter. It also explained the rationale of the study as to why it is important to conduct this research. Moreover, it justified why only two institutions of higher education in the Kingdom of Saudi Arabia were included in this study. Last but not least, this chapter also listed down the operational definition of terms related to this study.

This chapter was an introduction to the research study that focused on examining the mediate effect of organisational culture on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions. In Chapter 2, an in-depth explanation of literature relevant to this research study outlined.

CHAPTER 2

REVIEW OF LITERATURE

2.1 Introduction

This chapter looked at previous literature that focused on leadership competencies of academic leaders, organisational culture and students learning outcome in higher education institutions. This chapter included six main sections. The first section involved the introduction of the chapter, which gives the reader a clear vision and a brief description of the next five sections, which covers the three main variables that formulated the study. These three variables are leadership competencies of academic leaders, organisational culture, and students learning outcome.

Section two focused on scholars' views about educational and academic leadership, leadership competencies, level of leadership competencies, concepts and theories related to leadership competencies. It included previous studies related to the developing models of leadership competencies, identifying leadership competencies of academic leaders at higher education institutions, leadership behaviour and its impact on the performance and outcomes. Finally, this section included a brief description of the history of higher education in the Kingdom of Saudi Arabia. It also included studies conducted at Saudi higher education institutions regarding the leadership competencies of academic leaders.

The third section of this chapter involved a critical review of relevant literature on the concepts of organisational culture and the role of organisational culture in the organisation. Studies relating to the importance of organisational culture in higher education institutions also included. It also contained studies that clarify the mediating role of organisational culture in the higher education institutions and its relation to

leadership competencies. It also referred to studies that show the significant role of organisational culture in increasing the performance and outcomes of the institutes. It included a reach detail about the Organisational Culture Assessment Instruments (OCAI) that measures the type of organisational culture within the organisation. It involved studies that identify the type of organisational culture within the context of higher education institutions. Finally, it included relevant concepts and studies of organisational culture, which conducted in Saudi higher education institutions.

The fourth section of this chapter included information regarding students learning outcomes. It involved concepts and theories related to students learning outcomes. It included studies related to the impact of leadership competencies in students learning outcomes. It included studies to identify the relationship between leaders and students' outcomes. It also referred to the relationship between the organisational culture and students learning outcomes in higher education institutions. Lastly, this section included also concepts and studies related to students learning outcomes in Saudi higher education institutions.

The fifth section of this chapter covered concepts and studies that combined with the three variables, namely; leadership competencies of academic leaders, organisational culture, and students learning outcomes. The last section of this chapter concluded with a summary of the relationship between the three variables which formulated this study. It also summarised the general and common theme of this study.

In short, this chapter provided an in-depth explanation of previous studies that are related to leadership competencies, organisational culture, and students learning outcomes regarding higher education institutions. It provided answers for all questions associated with Chapter 1 regarding the objectives, research questions and hypothesis of the study.

2.2 The Competencies of Academic Leadership

2.2.1 Concepts of Educational and Academic Leadership

Leadership is a complex concept, made up of a variety of dimensions, definitions, strategies, types, and styles (Northouse, 2016; Seefeld, 2016). There are several definitions and concepts of leadership, but the essential element in the concept refers to the process of influence (Bush, 2011). Moreover, Northouse (2016) pointed out that all leadership investigators agreed with the idea that they cannot come up with a common meaning or definition of leadership. The reason behind it is because of the complexity of the concept of leadership that has different implications for different individuals. Northouse (2016) has defined leadership as a process when a person inspires a group of individuals to accomplish common objectives and goals. It also refers to making a change in the organisation.

The concept of leadership is very crucial for managing and controlling any sector. Education is one of the more critical sectors that need competent leaders who can make a significant difference (Bush, 2011). Hence, the concept of leadership and management in education existed several years ago (Northouse, 2016). This concept was initially called educational administration but was subsequently changed to educational management. Nevertheless, recently, this concept is known as educational leadership (Bush, 2011). Educational leadership has gathered immense interest in the first part of the 21st-century, because of its positive effect on the performance of the education sector and students' outcomes.

The concept of educational leadership refers to educational or academic leaders who are able to shape and formulate the motivations, actions and goals of other individuals (Bush, 2008, 2013; Northouse, 2016). Bush (2011) reviewed the concept of educational leadership from numerous literature, and he recognised that the

literature had generated several competing and alternative models. Several researchers gathered these conceptions based on the study of types (typology). For instance, Leithwood et al. (1999) reviewed about 121 articles and identified six different models of leadership. After three years, Bush and Glover (2002) extended the typology of leadership models to 8 models.

The leadership models identified by Bush and Glover (2002) were: managerial, transformational, distributive, participative, transactional, emotional, postmodern, moral, contingency, and instructional model. Table 2.1 below explains these typologies, which recognised as the ten leadership models which compared with the six models of management (Bush, 2011).

Table 2.1

Typology of Management and Leadership Models

Management Model	Leadership Model
Formal	Managerial
Collegial	Participative
	Transformational
	Distributed
Political	Transactional
Subjective	Postmodern
	Emotional
Ambiguity	Contingency
Cultural	Moral
	Instructional

(Source: Bush, 2011, p. 36)

These models, as shown in Table 2.1 above, are not exhaustive, as other researchers have also identified other categories and models of educational

management and leadership. Competent educational leadership is essential for the success of the educational system (Bush, 2008).

In short, educational leadership is the most active component in making differences in the education environment. By educational leadership, leaders can influence other individuals in the education environment to achieve the desired goals. Moreover, educational leadership has a direct and indirect impact on the development of the performance and outcomes of the educational organisation.

2.2.2 Leadership in Higher Education Institutions

Higher education institutions play a significant role in any society (Deore & Ratnalikar, 2010; Lu et al., 2017). Institutions of higher education considered as the cornerstone for educating and creating leaders in the society, enhancing economic development, and the primary source for knowledge and scholarship (Lu et al., 2017). Institutions of higher education have three main missions, which are: teaching, academic researching, and community service (Albutti, 2014). Moreover, higher education institutions affect students, families and societies (Lu et al., 2017). Thus, higher education institutions need capable and competent leadership that can project this important mission and place society and individuals in the best position.

Therefore, leadership is an essential component both for the success and failure of the institutions of higher education (Collum, 2014; Deore & Ratnalikar, 2010). Although leadership is a complex process, it is very crucial and necessary for the effective administration of higher education institutions. Leadership should examine in the context of higher education to identify the responsibilities, duties, and the competencies that academic leaders should acquire (Seefeld, 2016). Higher education institutions are involved with colleges and universities that established in the community, which can reflect their mission, values and culture (Douglas, 2013).

Accordingly, higher education institutions need competent leadership that can reflect their mission, vision, values, and culture. These institutes need leadership, because the role of leadership is very vital and essential for achieving quality in students learning, creating a suitable teaching environment for faculty members, and providing students with quality education (Shahmandi, Silong, & Ismail, 2012). Ambiguity and complexity exist among the structures of higher education institutions (Douglas, 2013). The complexity lies in the authority and control of individuals when they make decisions. Douglas (2013) mentioned that there is a dualism of control on the higher education institutions, which are: (1) administrative core at the top of the institute and (2) the professionalism of faculty in the middle to decide on how to manage the institutes.

Higher education institutions need competent academic leaders who have the required knowledge, skills, behaviours, attributes, and values that allow them to achieve the desired performance and outcomes (Albutti, 2014; Collum, 2014; Smith & Wolverton, 2010; Spendlove, 2007). This means that academic leaders need specific competencies, skills and styles that allow them to contribute remarkable differences in the sector of higher education (Shahmandi et al., 2013). Hence, the following sections will explain in-depth the leadership competencies that required from academic leaders at higher education institutions.

2.2.3 Leadership Competencies in Higher Education

The concept of competency has several meanings and definitions. It also varies from one individual to another and from one organisation to another. (Albutti, 2014; Seemiller, 2016). These differences are due to the diverse requirements of skills and knowledge that are different from one site to another. Hence, Seemiller (2016) pointed out that although there is a lack of common definition on competencies; however, there

are common elements that most scholars have to agreed to. This means that individuals have to be aware of specific competencies that should be acquired and implemented in any organisation.

According to Seemiller (2016), the common components of competencies in different sectors are: (1) the competencies must be identified for specific roles which allow for the creation of specific standards that provide direction for individuals to be competent and be more effective in their workplace, (2) the competencies must be measurable, the reference to the level of competencies or criteria of competencies that outlined in the evaluation form. Most scholars have defined competencies as a set of skills, knowledge, behaviours, values, motivations, and abilities and attitudes of individuals. (Albutti, 2014; McClelland, 1973; Spencer & Spencer, 1993; Seemiller, 2016).

David McClelland was the first scholar who introduced the concept of competency to the workplace in 1973. He pointed out that the competencies may be described as an iceberg that shows the skills and knowledge of individuals in the visible part of the iceberg, but other characteristics such as traits, motives, self-concept, self-confidence, and other characteristics hidden under the waterline (McClelland, 1973; Vazirani, 2010). Albutti (2014) highlighted the concept of competencies, which refers to the skills, knowledge, behaviours, capabilities and attitudes of individuals that allow them to do their tasks effectively. Moreover, Spencer and Spencer (1993) defined competency as the characteristics of an individual that are related to his superior performance at the workplace.

Although the concept of competency varies from one sector to another, nevertheless, it has a common theme. This main theme focused on the knowledge, skills, behaviours, attitudes, motives and other characteristics of individuals that allow

them to be capable and competent in their work. Hence, developing the knowledge, skills, and other characteristics of the individual are crucial components to ensure creativity in the workplace and delivering the desired performance and outcomes.

Leadership competencies refer to the behaviours and skills of leadership that contribute to the remarkable performance of any organisation (Albutti, 2014; Ngowi, 2017; SHRM, 2008). Organisations can make better decisions on developing, promoting and hiring leaders after knowing and taking into consideration the competencies acquired by individuals. Leaders in any organisations are facing many challenges such as managing individuals, adjusting to new cultures and values, and dealing with individuals' stress (SHRM, 2008). Thus, leaders should have adequate and sufficient competencies that will allow them to lead successfully. Ngowi (2017) stated that developing leaders based on a useful model of leadership competencies will provide competent leaders who can lead successfully.

Therefore, several organisations and institutes have developed models and frameworks of leadership competencies to ensure success in the workplace. For instance, a qualitative study was conducted by Shet, Patil, and Chandawarkar (2017) to examine previous literature on the competencies of leadership using a multi-dimensional framework. This study aims to combine the findings of previous literature on leadership competency studies to create a more integrative framework of competencies.

The researchers in this study have pointed out that while a number of studies had identified different dimensions and factors of leadership competencies, there is no clear direction for developing an integrative framework of leadership competencies for future research (Shet et al., 2017). Hence, this study fills the gap by examining the dimensions and factors related to leadership competencies of previous literature. This

framework which works on leadership competencies provides a clear vision on the direction of future research.

The researchers followed several steps to conduct the study. They held a literature survey and review; then organised the knowledge related to leadership competencies, and finally developed a framework of leadership competencies. The findings indicated that leadership competencies in literature could be categorised based on several viewpoints such as leadership level, job-specific, function-specific, generic competency specific, and geography-specific (Shet et al., 2017). The researchers provide a framework that combines the findings of previous literature which considered as a starting point for specialists in planning and enhancing the performance.

This framework is helpful for academics and practitioners in different sectors to help and give them direction on their research on the competencies of leadership (Shet et al., 2017). Moreover, the leadership competencies model that developed in this study is helpful for several aims such as, development of the employee, development of leadership, succession planning, selection of better employees, assessment and development centre, and core competencies. Leaders can check the practices in their organisation based on this model and then change the strategies if needed.

There was another study conducted by Sydänmaanlakka (2003) to develop a leadership framework for an intelligent organisation called *Intelligent Leadership Model*. She developed this model to find out what are the best competencies that are needed today to become a successful and competent leader in an organisation. This intelligent model contains 6 clusters with 26 competencies. Sydänmaanlakka (2003)

also developed a leadership self-assessment tool, which includes 160 items. After testing this model, Sydänmaanlakka (2003) found that these 26 competencies are not suitable and are not related to the educational environment especially to the higher education sector, but they work best with the companies' environment (Sydänmaanlakka, 2003). Competencies in higher education institutions need specific leadership competencies which are suitable for the higher education sector. Academic leaders need particular competencies that allow them to lead the organisation, staff, and students based on the specific situation.

In short, competencies are essential for effective organisations. Leaders need specific skills, knowledge, and behaviour that allow them to be competent leaders who can transfer and achieve the desired outcomes. Leadership competencies are very crucial in different sectors, especially the higher education sector. Leadership competencies are important in the higher education sector due to their role in achieving the desired outcomes of students learning and institutes.

2.2.3.1 Studies Related to Leadership Competencies in Higher Education Institutions

Institutions of higher education are facing several obstacles and challenges about developing their staff and individuals (Albutti, 2014; Alhojeli, 2010; Spendlove, 2007; Trettel, 2012). According to Albutti (2014), academic leaders, such as deans and academic department's heads are the essential leaders in building the universities and colleges. Thus, their abilities, effectiveness and competencies are the most critical components for creating the desired competency of academic departments (Bush, 2011; Collum, 2014).

Academic leaders cannot overcome any challenge in the university or achieve the desired academic quality without first acquiring the desired competencies of

leadership that enabled them to do their duties effectively and competently (Albutti, 2014; Collum, 2014; Douglas, 2013; Shahmandi et al., 2012). Therefore, leadership competencies are very crucial for academic leaders at institutions of higher education. Moreover, developing academic leaders based on the effective model of leadership competencies will provide competent academic leaders who can lead higher education sector successfully (Ngowi, 2017).

Furthermore, leadership and leaders are essential concepts in higher education institutions. Douglas (2013) stated that previous literature has defined a leader as a person who influences followers, motivates them, clarifies the goals and objectives, cares more about the values and institution's norms, acts responsibly, and collaborates with others to achieve the desired transformation of the institution. Thus, academic leaders have an essential responsibility to motivate, inspire and influence individuals in higher education institutions (Shahmandi et al., 2012). Leaders should have the desired competencies that will allow them to lead competently and effectively in the workplace.

Moreover, Bush (2008) pointed out that the educational environment requires competent leaders who can provide quality education and, above all, services for students. Although the practice of competent leaders in the educational setting is indirect, nevertheless, they have a powerful influence on the achievement and effectiveness of the educational site (Bush, 2008). As long as academic leaders have a relation with the efficiency of the higher education sector, they are required to have in-depth knowledge and specific skills to lead the institutes competently. According to Shahmandi et al. (2012), competent academic leaders should have the ability to know when to focus on the individuals, when to emphasis on the works, and when they can manage the external and internal factors. They must also know how to interchange

between different important roles, which are: monitor, innovator, developer, broker, and deliverer's role.

As long as academic leaders have to play different roles in the higher education sector, they also need to be capable integrators (Shahmandi et al., 2012). This means academic leaders should have the ability to make worthy decisions on a specific situation and know which appropriate role they have to play according to this situation (Northouse, 2016; Shahmandi et al., 2012). Furthermore, in order for academic leaders to be successful integrators, they have to develop leadership competencies to allow their colleges and universities to improve, develop and survive. Shahmandi et al. (2012) pointed out that academic leaders must have the right level of competency to lead higher education institutions efficiently and competently.

According to Bush (2011), improving the skills, knowledge, and attributes is very important for leaders to lead effectively and competently. Nevertheless, that requires systemic planning and preparation for academic leaders. Nevertheless, some previous studies have focused on identifying leadership competencies of academic leaders at higher education institutions. They also focused on determining whether academic leaders have systematic planning or guideline to be effective and competent in higher education institutions.

The study conducted by Skarupski et al. (2017) explored the perceptions of three groups of academic leaders on the importance of 23 competencies of leadership. The researchers used a survey questionnaire and distributed it between three different groups of leaders at John Hopkins Medical School. The total number of responses received was 113 responses. The results showed that all three groups had approved the same five critical competencies for emerging leaders. These five competencies are an interpersonal relationship, communication skills, personal flexibility, operating/

organisational skills, and planning and problem-solving (Skarupski et al., 2017). The researchers concluded that the findings of this study are important for the academic leaders' development programmes. Capable and competent leadership is very crucial for achieving success in higher education sectors. Moreover, the professionalism of faculty members in academic institutions is responsible for making the desired change.

Another study conducted by Ghasemy et al. (2016), identified the capability, competencies and the performance of academic leaders at some private and public universities in Malaysia. The researchers used a survey which has been applied in previous studies in Australia and New Zealand. This study purposed to investigate the situation in Malaysia and compare the results obtained from Malaysian universities with the results found in higher education institutions in Australia and New Zealand. The survey involves interpersonal, personal, cognitive capabilities, and role particular competencies (Ghasemy et al., 2016). The survey was distributed randomly between faculty members and managers who are attached to Malaysian universities.

The results showed some similarities and differences in academic leadership competencies between Malaysia, New Zealand and Australia (Ghasemy et al., 2016). For instance, some of the terms relating to the part of personal leadership capability were ranked higher for higher education institutions in Austria and New Zealand. These terms refer to remaining calm under pressure and knowing the individual limitations and strengths. There are other items which ranked higher in Malaysia than in Australia and New Zealand such as having enthusiasm and passion about teaching and learning and desiring to achieve the best outcomes (Ghasemy et al., 2016).

The results on leadership competencies showed that all three countries ranked one item as the highest competency which is, being able to run my time and organise

the work successfully (Ghasemy et al., 2016). Moreover, there are other items regarding competencies which ranked equally high, which are: recognising how universities are operating and having skills of resource management and administration. The results on the leadership performance component, both in Australia and Malaysia, ranked the item “achieving a high quality of graduate output” as the highest item. Another item that also received a high ranking was achieving a crucial improvement in the quality and excellence of teaching and learning (Ghasemy et al., 2016).

The results of the study contributed to developing university leaders by determining the degree of effectiveness of academic leaders. The results can help to design programmes which focus on training academic leaders at different universities around the world. This study clarified the level of competencies, capabilities and performance of academic leaders who have worked in higher education sectors in different countries.

Moreover, a study conducted by Hilley (2015) discovered that leadership competencies are needed for academic leaders to achieve the desired transition from the two- years community college to the four-years state college. The researcher explored the competencies that are required using the qualitative approach and exploratory single case study. The research conducted on Florida State College located in Jacksonville. The researcher interviewed seventeen midlevel and intermediate academic leaders, including deans, faculty staff and administrators who were working in this college. The participants shared their opinions and experiences on the required competencies of leadership that enhanced the transition, and other competencies that hindered this transition (Hilley, 2015).

The researcher pointed out that the findings from this study will recommend remarkable information on leadership competencies that are necessary to achieve the desired transition from community college to a state college. The conclusions of this study indicated that five different themes have emerged about leadership competencies that are needed for academic leaders to ensure the successful transition to the four years of college (Hilley, 2015). These themes are collaboration, professionalism, effective communication, compliance, and building trust. These themes are considered as competencies that enhance the transition to the four-year college. The findings from this study will also provide benefits for academic leaders who work on achieving the transformation in the future.

Collum (2014) conducted a study to examine the perceived effective leadership in the higher education institutions by analysing the indicators of leadership effectiveness from the viewpoint of female leaders. It also examined the indicators of leadership effectiveness of other leaders and staff by self-examination. It identified both competencies of leadership in higher education institutions and female leadership. The researcher used Q Methodology to obtain a clear vision about female leaders whether or not they have effective leadership in higher education. The participants of the study were chancellors and vice presidents from the higher education institutions in Maryland and North Carolina (Collum, 2014). The participants of the study received 61 statements and grouped according to their views on the indicators of effective leadership they observed during their work with others. While the indicator of the most effective leadership is (+5), the indicator of the least effective leadership is (-5).

The results of Collum's (2014) study pointed out that the success of leadership in the higher education institutions should be both adaptive and supportive of the

environment. Additionally, using a framework to understand the complexity and situations in a higher education setting is a vital component for ensuring the effectiveness of leadership in higher education institutions. Needless to say, higher education institutions can benefit from the outcomes of the study that has guided the evaluation on the performance of higher education.

A study conducted by Pomedá and Casani (2013) at Spanish Universities. It examined the main competencies expected from higher officials in their daily duties. The researchers distributed a questionnaire among 400 higher officials who were working with 50 different public Spanish universities. The sample was randomly selected, and in return, they received only 20% of valid responses from the questionnaire. They also gathered data from literature and group discussion.

The findings of the study specified that the higher officials from Spanish Universities have now considered the following four main competencies, which are: organisational transformation, leadership, strategic management, and theoretical reflection previous to action (Pomedá & Casani, 2013). The competency of organisational transformation includes higher education finance models, total quality management, and command of change management models. The competency of leadership involves: influencing and impacting on individuals, and self-confidence. The competency of strategic management includes strategic planning, general and team management. The competency of theoretical reflection before action involves conceptual thinking, command of accomplishment orientation, directiveness and information investigation (Pomedá & Casani, 2013).

This study conducted on a small sample size which reflected the self-perspectives of higher officials in Spanish university on the competencies desired from

their regular work. They concluded that improvement of the competencies should be based on creating a framework based on the gaps found from the results of this study. Academic leaders have to be acquired based on the required knowledge and skills that reflect the competencies expected from them. According to Pomeda and Casani (2013), developing leadership competencies of academic leaders should be the goal of any training and development programme.

A similar study was conducted by Alhojeli (2010) on departmental heads at Damar University in Yemen. He explored the opinions of departmental heads about their tasks and responsibilities in the departments, and to what extent these opinions are different with regard to years of work experience and type of college. He developed a questionnaire, which contains 96 tasks under 8 categories and distributed it to 31 departmental heads. The results concluded that the departmental heads recognised 87 tasks which are very important for them to achieve the departmental goals. These tasks are related to the following competencies; (communications, developing the relationship with others, organising, planning, leadership, guiding, follow up and assessment, curriculum and teaching, scientific research, community services, training and professional development).

The departmental heads also did not recognise the importance of the remaining nine tasks for achieving the objectives of the departments (Alhojeli, 2010). The results also showed that there is a statistical difference in their opinion about their tasks and responsibilities in the departments regarding the type of college and their preference of scientific colleges in terms of training and professional development and communications (Alhojeli, 2010). Moreover, the results showed that there is no statistical difference in their opinions about their tasks and responsibilities in the departments regarding the years of experience. Evidently, this study refers to the

importance of having specific competencies for academic leaders. It refers to the lack of awareness about the importance of some required competencies for the development of the academic department.

Nevertheless, some studies conducted to identify whether or not higher education institutions have systematic planning or strategy for competent academic leaders. Spendlove (2007), for instance, did a study to explore the role of the principal of a university and pro-vice-chancellor and the competencies that needed for effective leadership in the higher education institutions. Spendlove investigated three competencies, knowledge, attitude, and the behaviour of the leaders. Spendlove conducted this study on ten universities in the UK. The researcher concluded that most of the universities that he studied have no organisational strategy and no systematic procedure for increasing or identifying leadership skills (Spendlove, 2007). Most of higher education institutions around the world have no systematic approach for leadership skills or leadership competencies for academic leaders.

Gmelch and Parkey (1999), conducted a study on 13 new academic departmental heads of American private and public universities. They concluded that departmental heads are facing difficulties in this new role. These difficulties are due to the ambiguous role of academic heads because there is no clear vision about their role in the department (Albutti, 2014). This refers to the lack of vision regarding the role of academic heads in the department or in the university. Thus, academic leaders need a specific guideline to help them become competent leaders in their leadership roles and achieve the desired level of competency that allows them to accomplish success in higher education.

Blalock (1989), conducted a study to find out the attitude of deans and faculty members when developing the administration skills for the departmental heads of

American universities. He found that 60% of the deans and departmental heads had emphasised on the importance of developing the administration skills for departmental heads. He also found that half of the deans did not care about developing a programme for improving the skills for departmental heads.

Finally, he concluded that the departmental heads need a clear vision about their role in the departments, and the duration of the experience is very important for selecting the departmental heads (Albutti, 2014). This study has proved that there is no systematic approach for competent academic leaders. Hence, it proposed to establish a guideline of criteria for competent academic leaders who have important roles in the department or college as a whole.

Other studies also conducted at different universities in Jordan, Oman, Palestine, and Yemen, which focused on: identifying the administration and academic tasks of departmental heads (Hamed, 1989; Dahawi& Katami, 1997), exploring the leadership competencies of departmental heads (Olymat, 2003), and developing the administration and leadership role for departmental heads (Saada, 2003). All these studies have developed a questionnaire containing different competencies and tasks regarding academic leaders (Alhojeli, 2010). The main findings of these studies were; the academic leaders need a systematic approach and guideline to follow to develop leadership skills and competencies. They need training programmes to enhance their academic roles in higher education institutions.

In short, academic leaders have to acquire specific knowledge, skills, values, beliefs, norms, and other characteristics to be competent leaders. They have to reach the appropriate level of competency to lead higher education successfully. They should be competent academic leaders who can implement a specific style and role according to a particular situation. They have to be familiar with the required competencies of

leadership that will lead to the enhancement in the performance of the organisation and the individuals inside the institutes.

2.2.4 Developing a Model of Competencies for Competent Leaders

Developing a model of leadership competencies is becoming very crucial for a capable and competent organisation, especially in the higher education sector. Hence, many scholars paid considerable attention to developing a useful model of leadership competencies. In 2002, Elizabeth McDaniel developed a model for leadership competencies and recognised the core higher education leadership competencies (HELC). Her model divided into four categories; namely, context, content, process, and communication. Many studies have supported her results; but in 2010, Smith and Wolverton have tested her model (HELC) for two reasons: to find out whether the categories that she described have identified the competency elements of higher education leadership, and to present a new and more advanced model for leadership competencies.

After testing McDaniel's model, Smith and Wolverton (2010) concluded with remarkable results. They presented a new model with five new categories (analytical, communication, student's affairs, behavioural, and external relation). They found that only three out of the sixteen competencies relating to analytical categories are appropriate to higher education. They pointed out that most of the competencies listed in the entire HELC model were not specifically related to higher education.

Moreover, some scholars have developed a global model of leadership competencies which can apply in several sectors. Jokinen (2005) studied and debated the present global leadership competencies in different literature to combine the findings and to develop a complete framework of global leadership competencies.

Jokinen presented different competencies to various researchers; some defined five categories of competencies and the other six categories (Jokinen, 2005).

After reviewing and studying the competencies, Jokinen (2005) clarified three types of global leadership competencies, and each type has its own specific characteristics. The types of competencies that she developed of global leaders are: (1) Core of global leadership competencies, (2) Required mental characteristic, (3) and Required behavioural competencies.

Moreover, the Healthcare Leadership Alliance (HLA) has developed a model called *the Competency Directory* (Stefl, 2008). This model has a unique database that contains 300 competency statements under five fields that used to evaluate the competencies of the individual and organisation. This model has been very successful and widely used in healthcare organisations because it offers remarkable contributions to healthcare management in terms of providing the core competencies needed for several purposes (Stefl, 2008).

This model used for assessing the competencies of individuals and organisations, selecting the employees, and training of the team. It is also suitable for graduate students who desire to work with healthcare organisations to assess their competencies (Stefl, 2008). This model was developed and tested for healthcare leadership and did not relate to academic leaders. Although this model not tested in higher education, it is beneficial for assessing the competencies of individuals.

2.2.5 Level of Leadership Competencies

2.2.5.1 Leadership Competency Level of Academic Leaders

Earlier studies have pointed out that the competencies are very crucial for competent academic leaders to achieve the desired performance and outcomes of higher education institutions (Albutti, 2014; Alhojeli, 2010; Bush, 2011; McDaniel,

2002; Northouse, 2016; Shahmandi et al., 2012; Smith & Wolverton, 2010; Spendlove, 2007). Hence, academic leaders should acquire the right level of competency to lead higher education institutions efficiently and competently (Shahmandi et al., 2012). Spencer and Spencer (1993) implied that the competency comprises of three levels, which are: (1) trait and motives, (2) attitudes, (3) knowledge and skills.

The first level of competency is trait and motives. The trait refers to the fundamental elements of personality which consist of affective and cognitive aspects and allows leaders to achieve the desired goals. The motives indicate a specific type of trait that refers to unstable and irregular behaviours that enable leaders to accomplish goals (Kim & McLean, 2015). The second level of competency is attitudes, which consider more on the learned than traits and have an effect in the behaviour of leaders. The attitudes also refer to attained values or trait judgment on personality (Kim & McLean, 2015). The last level of competency is knowledge and skills. This level is concerned with achieving particular tasks and producing observable outcomes. Although the last level influenced by the previous two levels covering traits and attitudes, it is considered more changeable than both of the last two levels (Kim & McLean, 2015). The level of competencies varies from one researcher to another and from studies to studies.

Moreover, several studies have conducted on identifying the level of competencies and performance of academic leaders which concluded with remarkable results. Likewise, Shahmandi et al.'s (2012) study at four research universities in Malaysia examined whether or not the level of competencies is associated with the effectiveness of academic leaders. It also studied whether the gender of academic leaders is related to leadership effectiveness and whether there is an interactive effect between competencies level, gender, and effectiveness of leadership.

Shahmandi et al. (2012) conducted quantitative research using survey design and collected 59 respondents from different academic leaders including department heads, deputy deans and deans. The researchers in this quantitative approach used a Likert scale to identify the level of competencies and effectiveness of leadership. They studied six different levels of leadership competencies such as communication, resource management, organisational strategy, collaboration, and higher education advocacy and professionalism (Shahmandi et al., 2012). They analysed the data by Factorial ANOVA. Nevertheless, this study concluded that the competencies level has a significant impact on the effectiveness of leadership. Leadership effectiveness is not affected by gender. Moreover, the results showed that the interaction between the competencies level of academic leaders and gender does not have a significant effect on the effectiveness of leadership (Shahmandi et al., 2012).

The researchers also found that the percentage of high competencies level of academic leaders was 78%, and the moderate competencies level was 22%. They have also found that there is no low competencies level of academic leaders. Hence, the level of competencies is ranked high to moderate with the research universities in Malaysia (Shahmandi et al., 2012). The competency level at the research universities in Malaysia used for academic leaders' development. To identify the level of competencies of academic leaders is very crucial in achieving the effectiveness in the higher education setting. It is also important to know the required development programmes needed for academic leaders.

Trettel (2012) conducted a study to investigate the levels of leadership skills as observed by mid-level administrators at community colleges in Pennsylvania and how these skills are associated with the *American Association of Community Colleges* (AACC) leadership competencies. The researcher investigated to what extent the

leaders' current level of competencies is related to what stated in the AACC regarding leadership competencies that are recommended for mid-level leaders to reach the senior leadership position in community colleges (Trettel, 2012). The AACC contains 22 leadership competencies in six categories of leadership. The researcher assessed the competency level of community college mid-level administrators by utilising the competencies of leadership, as recommended by AACC.

The study concluded with several results; namely, the competency level of mid-level administrators was above average (2.64 to 3.66) and their competencies of leadership associated with the AACC leadership competencies. For the six categories of leadership, the highest response of participants for self-assessment was in the area of collaboration. In contrast, the lowest rate of administrators' self-assessment was in the category of management of resources. This indicated that administrators in the category of resource management are not competent enough compared to the rest of the categories (Trettel, 2012). The results concluded that the perceived skills of leadership are compatible with the AACC competencies and correlated to what needed for the position of mid-level administrators at community colleges in Pennsylvania.

Another study conducted on Yemen by Alhmdi (2000), was focused on identifying the performance level of departmental heads from the perspective of college deans (10 deans at Sanaa University). He developed a questionnaire containing 41 items under five categories (evaluating and controlling, guiding and advising faculty members, improving the human resources in the department, organising, and planning). The results concluded that the general performance of departmental heads is lower than the average (Alhmdi, 2000). Most of the heads have low administration skills in the planning, organising, and developing the human resource in the department. The level of performance of departmental heads in the scientific college

is higher compared to social colleges; especially, in the organising, guiding, leadership, evaluating and controlling.

The researcher recommended that it is crucial to give a clear vision about the responsibilities and roles that departmental heads should possess (Alhojeli, 2010). Besides, this study mentioned the low level of skills and the performance of academic leaders. Hence, this indicates the low level of competencies that required for ensuring the effectiveness in the higher education sector.

2.2.5.2 Leadership Competency Level of Different Sectors

Several researchers have conducted studies to identify the levels and dimensions of global leadership competency. Similarly, Kim and McLean (2015) did a study to identify the level of competencies involving global leadership. This study conducted utilising an integrative literature review method to create an integrative framework of worldwide leadership competencies reflecting both levels of competency and its dimensions. They concluded the study by creating a useful framework of global leadership competency with three levels of competency and four dimensions. They clarified that each dimension of the framework is comprised of three different levels. This refers to that each dimension can be viewed as competency. Hence, this framework of global competency of leadership comprises of four competencies with three different levels.

As a matter of fact, the levels of competency are core trait level, individual character level, and level of ability (Kim & McLean, 2015). The four dimensions of the framework are: intercultural, global business, interpersonal, and global organisational dimensions (Kim & McLean, 2015). Nevertheless, the researchers suggested that this framework will provide a means of developing the organisation

using existing global leadership competency models. It will also benefit human resource development and theory building in the future.

Another study conducted by Pampuri, Czabanowska, Hysa, Roshi, and Burazeri (2015) on Albania to describe and assess the present and mandatory level of leadership competencies of health professionals. They used a structured questionnaire comprised of 52 items which categorised under eight domains. It distributed between a sample of 267 of health professionals and the total response rate reached was 89%. The results of the Mean value showed that the current level of leadership competencies is low compared to the mandatory level of leadership competencies (Pampuri et al., 2015). Although the mandatory level of leadership competencies is 159.7, the results found that the current level of leadership competencies is 138.4. Although the level of leadership competencies of health professional in Albania is low, nonetheless, they need training programmes, guidelines, or strategies to follow to increase the level of leadership competencies.

2.2.6 Relationship between Leadership Competencies, Leadership Skills, Leadership Behaviours and Leadership Styles in Higher Education

The competencies of leadership are very crucial in the context of higher education. Higher education leaders must acquire new skills, knowledge, abilities and behaviours that will enable them to be more creative and competent (Shahmandi et al., 2013). Spendlove (2007) pointed out that previous studies have identified the leadership competencies as skills, knowledge, behaviours, and abilities of individuals. Hence, leadership skills and practices considered as essential components of leadership competencies (Albuti, 2014; Shahmandi et al., 2013; Spendlove, 2007).

There is an increasing demand for leadership competencies in the public academic environment due to inadequate leadership skills. Thus, higher education

leaders need to improve their leadership competencies to lead their institutions effectively (Albut, 2014; Shahmandi et al., 2013). Developing leadership competencies refers to the development of skills, knowledge, and behaviours of leaders. Increasing specific competencies or skills or behaviours of academic leaders largely depend on using different leadership styles (Shahmandi et al., 2013). Although there is no single style of leadership that fits all circumstances, academic leaders can apply the most appropriate style that fits the situation (Northouse, 2016). They have to use effective leadership styles to contribute their skills to their workplace (Shahmandi et al., 2013). Indeed, leadership competencies considered as skills that have a relationship with leadership styles.

Some earlier studies conducted to identify the relationship between leadership competencies and the styles of leadership. Likewise, a study was conducted by Shahmandi et al. (2013) with Malaysian research universities to study the association between the competencies of leadership and effective academic leadership styles. The researchers in this study applied the Structural Equation Model to establish this relationship. The results of this study highlighted that there is an association between the competencies of leadership and leadership styles. The results also showed that the contributions of leadership competencies depend on the styles of leadership in particular situations.

Based on the conclusions of the study, the researchers have concluded that academic leaders have, first and foremost, to identify the obstacles in their workplace before using their competencies. This can achieve by selecting the most suitable leadership styles based on a particular situation. Academic leaders also have to raise their abilities and skills to manage and lead higher education institutions effectively. Shahmandi et al. (2013) suggested that higher education leaders have to know which

competency and skill they need to be more productive. They also need to know how to make use of different styles of leadership in various situations. It concluded from the above study that leadership skill is a part of leadership competencies. Moreover, these skills or competencies are related to leadership styles. Academic leaders not only have to improve their competencies by utilising different styles in different situations, but they also need to develop their leadership skills to allow their institutions to grow and survive.

Needless to say, higher education leaders have to increase their leadership competencies and skills. In order for academic leaders to develop their leadership skills, they have to measure their leadership behaviours (Carless et al., 2000). Therefore, most researchers have to focus not only on identifying the leadership behaviours of educational leaders but also have to focus on two other behavioural situations, transformational and transactional leadership. (Bakker & Xanthopoulou, 2011; Bass & Avolio, 1990; Mutahar, Rasli, & Al-Ghazali, 2015; Northouse, 2016; Yukl, 2013). The earlier studies have also connected these two behaviours for the improvement of the educational environment and students' outcomes (Alfraih, 2014; Al-Safran et al., 2014; Northouse, 2016; Odumeru & Ogbonna, 2013).

Also, these studies have documented the impact of leadership skills, behaviours and styles on students' outcomes (Alfraih, 2014; Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Leithwood et al., 2010; Leithwood & Jantzi, 2006; Pina et al., 2015; Robinson et al., 2008; Southwell & Morgan, 2009). They have also stressed the relationship between leadership behaviours and students' outcomes. The results of these studies found that there are an impact and relationship between leadership behaviours of educational leaders and students' outcomes.

Earlier studies have also highlighted that a relationship occurs between academic leadership and the exact type of organisational culture (Giritli et al., 2013; Mozaffari, 2008; Ogbonna & Harris, 2000; Schein, 1992; Schimmoeller, 2010). The findings from earlier studies also showed that the two behaviours of leadership which are transformational and transactional are related to a particular type of culture with higher education institutions (Giritli et al., 2013; Zehir et al., 2011). Some earlier studies have stressed that organisational culture has a mediating effect on the style of leadership and the outcomes of the organisation (Li et al., 2018). These studies have focused on two styles or behaviours of leadership, which are transformational and transactional leadership.

Based on the above discussion, there are two types of leadership behaviours that have a strong relationship and influence on organisational culture and students learning outcomes. These two behaviours are transformational and transactional leadership. Hence, the following section comprised studies that are related to transformational and transactional leadership and how these two behaviours are essential for students, organisations and cultural purposes.

The transformational approach has been the focus of research, and it captures the attention of most of the literature since the 1980s. Northouse (2016) pointed out that transformational leadership has become the central place in many scholars' research studies. Transformational leadership is a process that helps to change and transform individuals. It concerns more on ethics, values, standards, emotions, and long-term goals (Burns, 1978; Northouse, 2016). It evaluates the individual's satisfaction and motives and treats them as human.

Transformational leadership helps followers to achieve more than what is expected of them. They exceeded their interest for the good of the organisation and the group that they belong to (Bass & Avolio, 1990). Transformational leadership has a tremendous positive outcome on the individuals and the performance of the organisation. Many studies and research have confirmed that transformational leadership has shown to be successful and effective in different situations (Bakker & Xanthopoulou, 2011; Mutahar, Rasli, & Al-Ghazali, 2015; Northouse, 2016; Yukl, 2013). For instance, a study was conducted in the Kingdom of Saudi Arabia by Mutahar et al. (2015) to analyse the impact of transformational leadership on the performance of the organisation through organisational learning in the telecom sector. The researchers collected data using a questionnaire distributed among 70 employees who were working in the Saudi telecom sector. They tested the hypotheses of the researcher using Structural Equation Modeling.

The findings of the study showed that transformational leadership has a positive influence on organisational performance and organisational learning (Mutahar et al., 2015). This study also concluded that there is a positive association between organisational learning and the performance of the organisation. Moreover, this study pointed out that transformational leaders played an essential role in enhancing employees' learning capability, which also leads to increase the employees' performance in the telecom sector (Mutahar et al., 2015). Transformational leadership has a positive impact on the performance of individuals and the organisation.

Another study was conducted by Bakker and Xanthopoulou (2011) in Netherland. It held on 42 staff and their supervisors from two organisations to examine the relationship between transformational leadership and the engagement of work. It found that the staff became more engaged in their work when their supervisors support

and enhance their optimism through transformational leadership style. This refers to the important role of personal characteristics in the transformation leadership styles.

Further study was conducted by Voon et al. (2011) on the public sectors in Malaysia to find out the effect of the style of leadership on job satisfaction and organisation performance. The researchers found that transformational leadership has a strong and positive correlation with job satisfaction. They also concluded that transformational leadership is more suitable for managing and leading government organisations.

Likewise, Nemanich and Keller (2007) studied the impact of transformation leadership on 447 multinational personnel from a large company which has integrated into a new organisation. They concluded that the behaviours of transformational leadership, like, idealised behaviour; individualised consideration, inspirational motivation and intellectual stimulation were correlated positively with the performance, gain acceptance, and job satisfaction.

Clearly, transformational leadership can develop and make significant changes in the organisation. Leaders in transformational leadership empower individuals, encourage them, and develop their awareness about transcending their interest for the sake of others. Leaders in this type of leadership are known for their care of followers and listening to their needs. They create a vision, which is the central point for them. This vision gives the leaders and organisation a conceptual map about where the organisation headed. It also clarifies the meaning and creates the identity of the organisation. Vision provides followers with a sense of being a part of the organisation identity and a sense of their self-competency.

Transformational leaders are very effective in dealing with individuals. They enhance collaboration with others and build trust between individuals. This leadership

makes people feel more confident about themselves and their contributions to the organisation. Yukl (2013) stated that transformational leadership is a beneficial form of leadership. It is a precious and worthy approach which widely used.

However, transactional leadership is different as compared to transformational leadership. Burns differentiated between transformational leadership and transactional leadership (Northouse, 2016). He stated that transactional leadership refers to the body of leadership models that focused on the exchange between leaders and followers.

Transactional leadership has two different factors (Bass & Avolio, 1990; Northouse, 2016) which are Contingent Rewards and Management-by-Exception. The first factor is contingent rewards, which refers to the exchange procedure between followers and leaders. Followers can exchange their efforts for having specific rewards from the leaders. Leaders in this factor are trying to get an agreement from the followers on what they have to do and what kind of rewards that they will gain (Bass & Avolio, 1990; Northouse, 2016). For instance, the dean can negotiate with faculty members about the quality and the numbers of publications required of them to gain tenure and promotion as a reward for that.

The second factor is management by exception. Leadership in this factor focused on negative feedback, corrective criticism, and negative reinforcement (Bass & Avolio, 1990; Northouse, 2016). There are two forms of this factor, which are: active and passive. Leaders can use the active form and watch the followers closely for rule violations or making mistakes and taking corrective action immediately. Leaders can also use the passive form when they wait until the problems have arisen, or the followers did not meet the required standards. Northouse (2016) stated that both active and passive forms are using the negative reinforcement type compared to the first factor that uses positive reinforcement for the followers.

Transformational and transactional leadership are very important for leadership. Burns distinguished between them and stated that leaders who apply transactional leadership are exchangeable perceptible rewards for the loyalty of the individual and his work (Northouse, 2016). In contrast, the leaders who adopted transformational leadership theory are engaged with their followers, focused on the high order of essential needs, and on the importance of particular outcomes and a new technique that used to achieve these outcomes. The behaviour of transactional leadership tends to be passive, but the behaviour of transformational leadership is more active (Odumeru & Ogbonna, 2013).

McGregor's theory Y and theory X are similar to the transformational and transactional leadership theories. Theory X is similar to the Transactional leadership theory in term of leaders which focuses on the specific standard of fair and consequences. The individuals who motivated through rewards punished for negative behaviour. Theory Y is related to Transformational Leadership Theory because both of them have similar ideas that leaders always encourage their followers. They believe in their followers to be self-motivated, trustworthy, and respectful. Leaders in both theories support followers and provide them with tools that they need to succeed (Odumeru & Ogbonna, 2013; Sultana et al., 2015). Nevertheless, transformation leadership is more successful in various sectors compared to transactional leadership.

Several studies have pointed out that transformational leadership has a more significant effect than transactional leadership (Northouse, 2016). Although the results of transactional leadership lead to expected outcomes, nevertheless, transformational leadership results lead to more than what is expected of the outcomes. For instance, Lowe, Kroeck, and Sivasubramaniam (1996) concluded in their study that individuals who displayed transformational leadership were distinguished to be more effective and

competent leaders with better outcomes of work compared to those who presented only transactional leadership in their work.

Moreover, several studies have pointed out that transformational leadership and transactional leadership have positive and direct effects on the performance of the individuals and the organisation. Likewise, a study by Yang and Wei, (2009) on one of the organisations in Taiwan examined the relationship between leadership style in terms of transformational and transactional leadership and the organisational innovation performance and organisational innovation capability. The results concluded that leadership style (transformational and transactional) have a positive impact on the organisation's innovation performance. The results also indicated that leadership style is moderating the relationship between the competency of organisational innovation and the performance of organisational innovation.

Similarly, a study conducted by Long and Mao (2008) in China to analyse the effect of leadership style by achieving the desired change in the organisation. The results of this study found that transformational leadership and transactional leadership have a positive effect on organisational change. Thus, both transformational and transactional leadership have a positive impact on the individuals and the organisation.

2.2.7 Relationship between Leadership Style and the Level of Leadership Competencies

Several studies mentioned that there is a relationship between leadership competencies and leadership styles. In contrast, some studies found that there is no relationship between leadership style and the level of leadership competencies. Likewise, a study was conducted in Turkey by Gençer and Samur (2016) to identify whether if the style of leadership can be a predictor of the competent leaders of technology. This study focused on investigating the competency of leaders as

technology leaders, and not on the level of technology. The researchers used the Multifactor Leadership Questionnaire (MLQ), which was developed by Bass (1985) and modified later by Demire and Okan in (2008). It was distributed and completed by fifty educational leaders who hold positions as administrators or leaders in different educational institutions in Turkey.

The results found that there is a moderate correlation between transformational and transactional leadership styles (Gençer & Samur, 2016). The results also concluded that the style of leadership is not a predictor on the level of competencies of technology on leadership. In this study, the researcher also pointed out that the style of leadership could not be utilised as a method or technique to transform education or schools.

In contrast, other studies have pointed out that there is a relationship between leadership competencies and leadership styles. Similarly, a study was conducted by Shahmandi et al. (2013) with Malaysian research universities to examine the relationship between leadership competencies and effective academic leadership styles. The findings of the study emphasised that there is a relationship between leadership competencies and leadership styles. The researchers also pointed out that the contributions of competencies of leadership depend on the styles of leadership in particular situations.

Shahmandi et al. (2013) also concluded that academic leaders have to identify the obstacles before using their competencies by selecting the appropriate leadership styles based on certain situations. Also, they have to know how to make use of different styles of leadership in various conditions. The results have established that leadership competencies are related to leadership styles. However, academic leaders can improve their competencies by utilising different styles in different situations.

In short, previous studies indicated that academic leaders need specific competencies, strategies, and guideline to follow in order to be competent leaders. Studies also clarified that theories related to leadership style are very crucial for leaders who desired to transfer the organisation. Therefore, higher education institutions need competent academic leaders who can make a difference.

2.2.8 Higher Education in the Kingdom of Saudi Arabia

The Saudi government established the Ministry of Higher Education in 1975. The role of this ministry focuses on several duties such as monitoring, supervision, planning, and coordinating the needs of Saudi society for qualified individuals (Aleassa, 2010). The Ministry of Higher Education is responsible for offering qualified students with desired learning outcomes in different sectors. Although higher education starts very late in the Kingdom, the number of universities has now reached more than 25 universities, which located in different cities around the Kingdom. Recently, there are 25 government universities, 9 private universities, and 30 private colleges providing different scientific and applied majors (Saudi Ministry of Education, 2018). All of these universities are linked to the Ministry of Education but have their autonomy in academic and administration sector (Saudi Ministry of Education, 2018).

Studying in Saudi higher education institutions is free and open for qualified students who have graduated from high schools. Moreover, the Ministry of Education provides full scholarships for Saudi students to complete their studies in different countries around the world (Aleassa, 2010; Alshayea, 2012). The Ministry looks after students who are studying abroad because it offers a scholarship for qualified students who can study specific majors that will benefit the Kingdom in the future (Saudi Ministry of Education, 2018).

Furthermore, the Ministry of Education pays more attention to scientific research by coordinating with universities to promote researches that will help to develop the country (Alshayea, 2012). The Ministry of Education also collaborates with the universities by holding conferences and seminars and providing support to research centres that are related to universities (Saudi Ministry of Education, 2018).

The Kingdom of Saudi Arabia pays more attention to improving the education system. It starts to reform education beginning with kindergarten to higher education institutions (Saudi Ministry of Education, 2018). Saudi's new vision 2030 for education aims to support the movement of reform Saudi education in all its stages. Education is an essential building block of this vision (Patalong, 2016). Hence, this vision aimed at providing students with the required knowledge and skills needed for future employment. It also proposed to increase the quality of students learning outcomes in the higher education sector (Saudi Ministry of Education, 2018).

Nevertheless, many challenges are facing the Saudi higher education system, which is affecting the quality of students learning outcomes. These challenges are addressed by the National Transformation Programme 2020, which collaborates with the Ministry of Education (Saudi Ministry of Education, 2018). Some of these challenges are: students are suffering from lack of critical thinking skills and personal skills, some of them are suffering from the absence of education service and programmes, and weakness of educational environment, hindrance in creativity and innovation (Saudi Ministry of Education, 2018). Therefore, the National Transformation Programmes 2020 has developed several objectives to overcome these challenges. Improving the educational environment, stimulating innovation and creativity are some of the objectives.

Furthermore, the Saudi new vision of 2030 has also changed its trends in terms of improving and increasing the administrative environment in the Ministry of Higher Education and its education departments. It is also working to approve the decentralisation of the educational administration, and delegating powers to universities to assist the education system (Saudi Ministry of Education, 2018). These challenges of the higher education system in the Kingdom need competent leaders who can transform education to secure the desired changes.

2.2.8.1 Studies Related to Leadership Competencies in Saudi

Higher Education Institutions

Saudi higher education institutions play a significant role in developing the Kingdom by providing qualified individuals in different sectors (Albutti, 2014; Alshayea, 2012). They also have a significant role in renewing and improving the knowledge and preparing trained researchers who can invent and innovate. Thus, higher education institutions need competent leaders who can hold this sensitive position.

Deans and academic departmental heads at the higher education institutions in the Kingdom are facing many challenges (Albutti, 2014). Moreover, they do not have a guideline or leadership competency model to follow in order to achieve success in the workplace or to overcome the obstacles. Hence, several studies have been conducted in the Kingdom of Saudi Arabia to identify the role of academic leaders or the leadership competencies of higher education institutions.

While most of the studies are related to leadership competencies and educational leadership, have been conducted at the K-12 level. Leadership in the context of the higher education sector all over the world does not receive more attention from educational scholars (Bellibas, Özaslan, Gümüş, & Gümüş, 2016). This

indicates that there is not much research have been conducted, which focused on the role of leadership in the higher education sectors (Bellibas et al., 2016; Gmelch, 2013). This is the case regarding leadership in Saudi higher education institutions.

Minimal studies have been conducted in the Kingdom of Saudi Arabia to identify leadership competencies of academic leaders at the higher education institutions. One of these minimal studies was conducted by Albutti (2014) in the Kingdom of Saudi Arabia, which emphasised on identifying the leadership competencies of academic departmental heads at Ha'il University. He emphasised which competencies they should acquire, to which degree these competencies are important to them, and to recognise the statistical differences of gaining the competencies according to different variables (experience, academic rank, and kind of college they belong to).

Although the results of this study have shown that the degree of possessing the competencies by departmental heads is very high, the results also show that these competencies are essential to them (Albutti, 2014). He also established that there are no statistical differences in the degree of possessing these competencies and its importance to them according to the academic rank and experience. There is a statistical difference between the degree of possessing these competencies and its importance to them according to the type of college particularly in favour of the College of Science.

In short, all Saudi universities shared the same system; hence the degree of possessing the competencies by academic leaders is very high. This study was focused on the competencies of academic leaders and did not relate the impact of these competencies on the organisation or students.

Another study was conducted by Alghamdi (2004), which focused on the problems faced by departmental heads at the Teachers Colleges in the Kingdom of Saudi Arabia (160 academic leaders). He focused on issues regarding faculty members, students, college administration, and routine duties within the departments. He concluded that there is a need to develop a functional description for departmental heads. Moreover, the departmental heads should attend specialised workshops and training courses before appointing them to lead the position (Albutti, 2014). Hence, this study clarified that there is no systematic approach or guideline for academic leaders in Saudi higher education institutions.

2.2.9 Common Theme about Leadership Competencies of Academic

Leaders

From the discussion above, the researcher concluded with a common theme regarding the leadership competencies of academic leaders. It is evident that leadership competencies differ from one sector to another. They are varied from one scholar to another and from one research to another. These differences based on the nature of the work required by the leaders.

Moreover, the researcher concluded that academic leaders need specific competencies to follow in order to be competent and capable leaders in a higher education institution. From relevant literature, the researchers discovered that leadership competencies of academic leaders do not receive much attention from scholars and researchers in the context of higher education. Hence, there is a lack of strategies regarding developing leadership competencies in the context of higher education. The researcher found a gap in the literature where there is no framework or systematic strategies of leadership competencies of academic leaders in Saudi higher education institutions. There is also no specific leadership competency level

that required of competent academic leaders in Saudi higher education institutions. There are no studies also conducted in the Kingdom to study the relationship between leadership competencies and the performance of the individuals in higher education.

Therefore, the researcher conducted a study to fill this gap and identify the level of leadership competencies that are required of academic leaders to be competent leaders at Saudi higher education institutions. These required competencies may allow leaders to understand and use the organisational culture positively and enhance the outcomes of students learning at higher education institutions. Thus, the following sections discussed the relevant literature regarding organisational culture and students learning outcomes and their relation to competent academic leaders.

2.3 Organisational Culture

2.3.1 The Concept of Organisational Culture and Its Importance in The Organisation

The term organisational culture refers to a group of values and beliefs that were embedded deeply in the organisation and shared by individuals who work in the organisation (Alsarahani, 2012; Coman & Bonciu, 2016; Martins & Terblanche, 2003). Organisational culture refers to a group of assumptions that operated well in the past and are now still accepted as effective assumptions that preserved in the organisation (Schein, 2004). These assumptions are tested frequently on behaviours and attitudes; hence organisational culture is considered as an appropriate way of understanding issues, taking actions, and solving several problems in the organisation (Coman & Bonciu, 2016). Organisational culture plays a significant role within the organisation because it plays an essential part in creating and shaping the organisation and solving its problems.

Organisational culture made up of several important parts including the values, beliefs, rules, norms, philosophy, and behaviours (Bush, 2011; Coman & Bonciu, 2016; Hellriegel, Slocum, & Woodman, 1998). This means that organisational culture based on sharing behaviours, beliefs, assumptions, meanings and values between individuals in the organisation, which means everyone is on the same track of the organisation. It is passed from one member to another and transformed from one generation to another one. It refers to how individuals treated in the organisation and how they developed. It also has a significant role in decision-making in the organisation.

Organisational culture is a critical component for all leaders in any sector because it influences the way that organisations react and respond to the changing requirements of the work environment (Alshibani & Alatwi, 2011; Coman & Bonciu, 2016). It has a significant role of creating the characteristics, motivations, values and behaviours of individuals (Alsarahani, 2012; James Ng'ang'a & Nyongesa, 2012; Sheikhalizadeh & Piralaity, 2017). It also affects the decision making within the organisation. Recently, scholars pay more attention to the culture within the organisation, which has a significant influence on the performance and outcomes.

While each organisation has its own culture, educational organisations also have their own and unique culture that influences the individuals which affect decision making (Alsarahani, 2012; Boykova, 2011). Higher education institutions are also one of the educational organisations that are more concerned with the organisational culture that creates the values, principles, motivations and attitudes of individuals. According to Alkaruoti (2008), organisational culture has a unique role in developing the performance and educational outcomes, increasing the productivities of faculty members, encouraging team working, improving self-awareness and control

(Alsarahani, 2012). The awareness of the role that organisational culture plays in higher education institutions is very crucial for academic leaders and faculty members. It stimulates the stability and creativity in the higher education setting.

2.3.2 Organisational Culture in Higher Education Institutions

Higher education institutions are almost similar to business organisations because both of them have culture, structure, mission, vision, and strategies that help them to reach the desired goals (Coman & Bonciu, 2016). External and internal forces, such as economics and political situations also influence them. Both sectors have their own culture that influences the decision making, applying a change, and taking action towards specific circumstances (Berkemeyer, Junker, Bos, & Müthing, 2016; Coman & Bonciu, 2016). The organisational culture in both sectors differ in terms of their mission, vision, objectives, management processes, leadership, and interpersonal relationship.

Moreover, the organisational culture in higher education institutions is a particular case and has a different path compared to the organisational culture of companies and manufacturing enterprises (Vasyakin et al., 2016). The organisational culture within the context of higher education institutions has three different perspectives, which are: (1) organisational culture of higher education sector as an independent group (department), (2) the organisational culture of faculty members and students as a social group, (3) the organisational culture of higher education institutes as part of the company that contributes to qualified individual graduates who will employ in the future in one of the professional companies and corporations (Boykova, 2011; Vasyakin et al., 2016).

Furthermore, organisational culture is a crucial element of effective decision-making in higher education institutions (Fralinger & Olson, 2007). It is considered one

of the most important pillars that enhances the building of the university's principles. According to Alsarahani (2012), organisational culture in the context of higher education improves the stability and constancy, increases the creativity of faculty members, improves their motivation at work, and develop their loyalty to their universities. It has a role to increase the performance, outcomes, and knowledge in higher education institutions (Haque& Anwar, 2012; James Ng'ang'a & Nyongesa, 2012; Kotrba et al., 2012). Therefore, the success and failure in higher education depend on the role that organisational culture plays for individuals and organisation.

2.3.3 Assessing the Organisational Culture in the Context of Higher Education

Culture is a complex concept, which is difficult to evaluate or assess within the organisation (Alshibani &Alatwi, 2011). Two different approaches used to assess and measure the culture in the organisation, which are, qualitative and quantitative approach. Both approaches have strengths and weaknesses (Alshibani &Alatwi, 2011). Both of them have unique characteristics that allow investigators to collect valuable data about the culture in the organisation that they study.

The investigators used the qualitative approach to measure the organisational culture by conducting in-depth interviews with individuals and observing the situations inside the organisation. According to Delobbe, Neuve, Haccoun, and Vandenberghe, (2007), the qualitative approach depends on the internal perspectives of the individuals within the organisation (Alshibani &Alatwi, 2011). The qualitative approach has two negative points, which are: (1) the investigators cannot generalise the dimensions of culture, because they observe a specific situation in a particular culture, (2) the investigators via this approach cannot provide complete information

about organisational culture and link it to the organisational performance and staff's behaviour (Alshibani &Alatwi, 2011; Delobbe et al., 2007). Moreover, in this approach, the researcher spends a lot of time and money for searching, collecting, and analysing data. Hence, most researchers prefer to use a quantitative approach to investigate the culture within the organisation.

In contrast, the investigators using quantitative approach depend on the questionnaire as an instrument that measures the dimensions of organisational culture (Alshibani &Alatwi, 2011; Cameron & Quinn, 2011). Delobbe et al. (2007) pointed out that using a questionnaire for measuring the culture within an organisation leads to several benefits, such as: comparing the cultures of different organisations, studying the relationship between organisational culture and other organisational variables, and generalising the results. Thus, several researchers prefer to utilise instruments like a questionnaire to measure the organisational culture.

Both approaches, qualitative and quantitative, have strengths and weakness points. The investigators have to select an appropriate approach based on the nature and the objectives of the study (Alshibani &Alatwi, 2011). Previous literature indicated that the quantitative approach is used widely in measuring the organisational culture compared to the qualitative approach. Thus, the most appropriate approach for measuring the organisational culture in the organisation is the quantitative approach using the questionnaire instrument.

Therefore, scholars and researchers developed several models, instruments and measurements to assess the culture in different organisations (Ahmed & Mir, 2012; Cameron & Quinn, 2011; Denison & Mishra, 1995; Hofstede, Hofstede, & Minkov, 2010; Pareek, 2002; Yadav, 2014). A number of studies also conducted to identify

which models or instruments are more appropriate for studying the organisational culture at higher education institutions.

Moreover, earlier literature pointed out that there are several models for studying and assessing organisational culture in higher education institutions. The most popular models are Denison's model of organisational culture (1995), OCTAPACE culture of Udai Pareek (2002), Hofstede's cultural dimensions (2010), Organisational Culture Assessment Instruments for Cameron and Quinn (2011). All of these models are appropriate for studying the culture within higher education institutions.

2.3.3.1 Denison's Model of Organisational Culture (1995)

Denison's Model of Organisational Culture is a model developed by Daniel Denison (1995). This model focused on four main characters in the organisation, which are: involvement, mission, consistency, and adaptability (Denison & Mishra, 1995). These characters refer to four main types of cultures, and each type has three different indicators. Denison's model measured 12 various indicators through 60 items. His model is developed in the business environment that utilised business language and care more on business issues (Denison & Mishra, 1995). There is a little limitation in using this model in a higher education setting.

2.3.3.2 OCTAPACE Culture Profile of Udai Pareek (2002)

The OCTAPACE Culture Profile developed by Udai Pareek in 2002. It has eight (OCTA) steps to build the functional ethos which considered the core values within the organisation (Yadav, 2014). This profile developed to understand which particular values are useful in the organisation. It has eight dimensions, which are: openness, trust, confrontation, authenticity, autonomy, production, experimenting, and collaboration. This file has 40 different items which were developed to study

organisational culture in several sectors such as, business, manufacturing organisation, banking, and other public sectors. Ahmed and Mir (2012) and Yadav (2014) stated that the OCTAPACE culture profile could also be used to study the organisational culture in higher education institutions.

2.3.3.3 Hofstede's Cultural Dimensions (2010)

Hofstede developed a theory called Hofstede's Cultural Dimensions theory. His approach focused on cross-cultural communication and the personnel of IBM between 1960 and 1970 (Hofstede et al., 2010). His original approach covered four dimensions of cultural values, which are: individualism-collectivism, power distance that refers to the strength of social hierarchy, the avoidance of uncertainty, and masculinity-femininity. Later, Hofstede added long-term orientation as the fifth dimension to cover the value aspects. In 2010, Hofstede added the sixth dimension of toleration against self-restraint. His model now has 23 different items (Hofstede et al., 2010). Yadava (2014) pointed out that Hofstede's model could be just a part of the empirical study in the communication of cross-cultural.

2.3.3.4 Organisational Culture Assessment Instruments for Cameron and Quinn (1999, 2000, 2004, 2011)

The organisational culture assessment instrument is one of the instruments used to study the organisational culture within an organisation. It is developed by Cameron and Quinn in 1999 and continued to be modified in 2002, 2004, 2011. It utilised in different sectors, including manufacturing, business, religious organisations, military organisations, airlines, health care, general education, and higher education institutions (Cameron & Quinn, 2011). This theoretical model has six different items and four alternatives.

These six items called dimensions, which are: dominant characteristics, organisational leadership, management of employees, organisation glue, strategic emphasis, and criteria of success (Cameron & Quinn, 2011). Each of these six dimensions has four alternative items. Distributing 100 points between these four items is dependent on the extent to which every item is similar to your organisation. The higher number should be given to the most similar items to your organisation and so on. The total number should be equal to 100 points. Clearly, this instrument measures four different types of culture within the organisation, which distributed between the six dimensions. The four types of culture that were measured by this instrument are Clan culture, Adhocracy culture, Market culture, and Hierarchy culture (Cameron & Quinn, 2011).

According to Cameron and Quinn (2011), OCAI is a useful instrument with 24 items which can be utilised in different sectors and different countries around the world. It has been used in several countries in North and South America, Asia, Europe, the Middle East, and the Arab world. It is a popular model that can apply in many sectors. It used in more than sixty doctoral dissertations, different educational and industrial sectors, and various programmes (Cameron & Quinn, 2011). It also used in more than 10,000 organisations around the world (Alshibani & Alatwi, 2011). Although there are several of models that measure the organisational culture such as Denison's model, OCTAPACE culture profile of Udai Pareek, and Hofstede's cultural dimensions, the OCAI model by Cameron & Quinn is the most suited form of measurement for studying organisational culture in the context of higher education (Alshibani & Alatwi, 2011; McCaffery, 2010; Vasyakin et al., 2016). Moreover, McCaffery (2010) stated that one of the ways of assessing culture in higher education

institutions is by utilising the instrument called OCAI that was developed by Cameron and Quinn.

Apparently, there are three ways to understand and measure the culture in the context of higher education (McCaffery, 2010). These 3 main ways are: (1) asking individuals to give their opinions and perceptions about their institutes, (2) asking individuals about open-ended questions about physical impressions, reward system, influential people, images, stories, and informal conversations, norms, values, beliefs, language and its effect on the individuals, (3) adding a score for organisational culture mechanism based on the instrument that was developed by Cameron and Quinn in 2011.

Cameron and Quinn's model has widely used in higher education sectors, including community colleges and universities around the world (Alshibani & Alatwi, 2011; Vasyakin et al., 2016). Hence, it can also extend for use in other countries which have not applied for it yet. The Kingdom of Saudi Arabia did not mention in the list by Cameron and Quinn (2011) the countries that utilised this model. Therefore, this current study adopted the organisational culture assessment instrument OCAI by Cameron and Quinn (2011) to study the type of organisational culture within the context of the Saudi higher education institution. This instrument has proved its validity in several countries and several higher education institutions. Therefore, the OCAI was the main instrument in this study for assessing the organisational culture in Saudi higher education institutions.

Based on that, the aim of applying the OCAI is to evaluate the six dimensions of organisational culture (Cameron & Quinn, 2011). These dimensions provide a clear vision of how the organisation operates. Each of these six dimensions has four different questions that represent the four types of organisational culture. This instrument

focused on dividing 100 points among these four questions. The highest points must be given to the most similar item in your organisation (Cameron & Quinn, 2011). For instance, in order to divide the 100 points among the alternative items, you have to give 55 points for the item which is a very similar item to your organisation, and if the second item is somewhat similar to the organisation you have to give it 20 points, but if there is another item which is also somewhat similar it still deserves 20 points, and finally you can give 5 points if the item is hardly similar to your organisation. Hence, the total number will be equal to 100 points.

The participants who have asked to assess their organisation have to do the assessment twice for Now and Preferred (Cameron & Quinn, 2011). The first time it is focused on evaluating the organisation which at the moment labelled as “NOW”. The second time labelled as “PREFERRED” and focused on their opinions on how they prefer to be with their organisation after five years (Cameron & Quinn, 2011). The results of this assessment will gain a high score for the type of culture that practised by the organisation at the moment and another high score for the preferred culture after five years.

Cameron and Quinn (2011) identified four different types of culture within the organisation, which are: Clan Culture, Market Culture, Adhocracy culture, and Hierarchy culture. Therefore, if the high score labelled as NOW was for Clan culture, that means the culture that practices in the organisation is Clan culture. Additionally, if the high score is labelled as PREFERRED was Adhocracy culture, that means the preferred culture after five years is adhocracy culture (Cameron & Quinn, 2011).

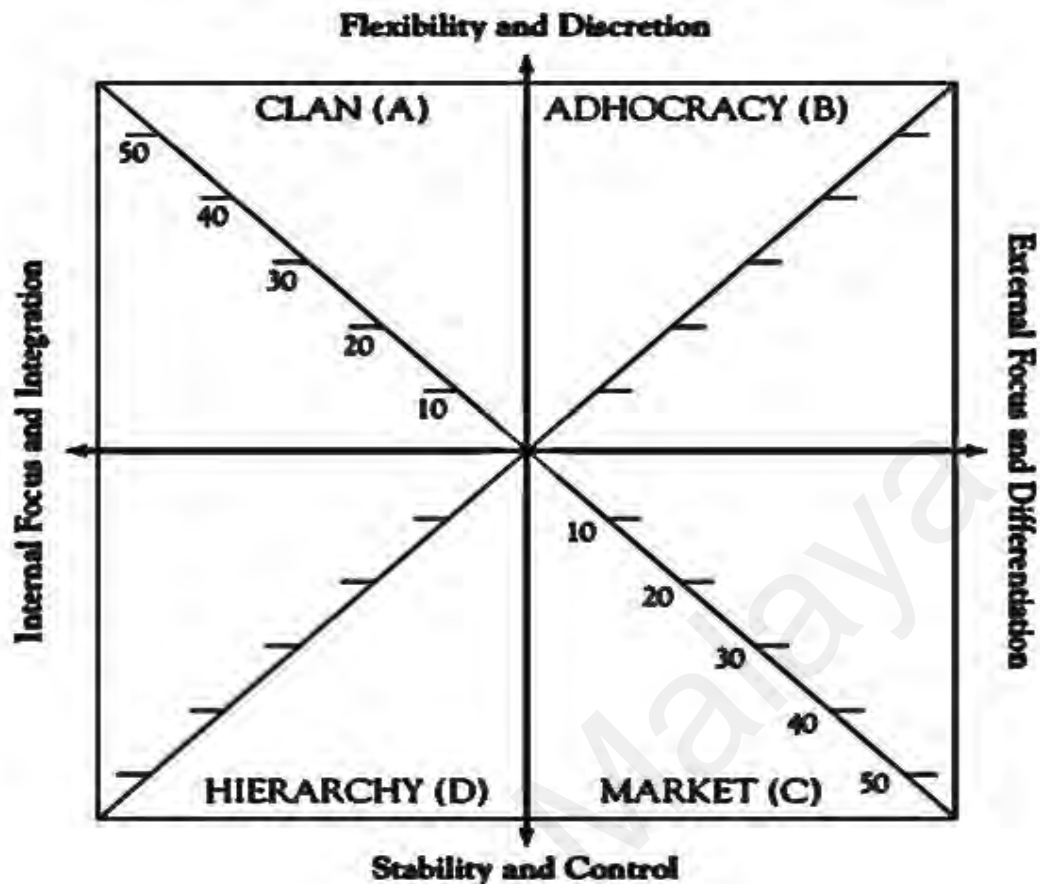


Figure 2.1. Organisational Culture Profile (Source: Cameron & Quinn, 2011, p. 223)

Each of the four cultures has its characteristic that has a role in the organisation. Figure 2.1 clarifies the four type of organisational culture based on the OCAI model. Moreover, the following section will explain in detail the characteristics of each type of culture based on the explanation provided by Cameron and Quinn (2011).

The Clan culture

The Clan culture described as a friendly place to work with (Cameron & Quinn, 2011). In this place, individuals can share a lot by themselves. Moreover, the leader in this culture is the monitor which considered as a parent figure. Loyalty and tradition are the most important component that holds the organisation together. This culture characterised by high commitment. It pays more attention to morale and cohesion.

Additionally, the clan culture stresses the long-term benefit on the development of human resource (Cameron & Quinn, 2011). This culture defined the success in terms of the concern for individuals and the sensitivity to customers. The organisation that follows this type of culture puts a place for a premium on participation, consensus, and teamwork (Cameron & Quinn, 2011). Clearly, this type of culture focuses on internal maintenance with sensitivity to customers, flexibility, and concern for the individuals in the organisation.

The Adhocracy culture

The place in this culture characterised as a creative, dynamic, and entrepreneurial place (Cameron & Quinn, 2011). If an individual in this organisation sticks his/her neck out, he/she is likely to take risks. The leader in this type of culture considered as a risk-taker and innovator. The organisation can bond together with the commitment to innovation and experimentation. The long-term stress of the organisation is from obtaining new resources and development. Moreover, success in this organisation means obtaining new and unique services and products. The most important point for the leader in this culture is either service or product leader. This organisation motivates its individuals for freedom and initiative (Cameron & Quinn, 2011). This type of culture focused on external sitting with a high level of personality and flexibility.

The Hierarchy Culture

The place in this type of culture is considered a very structured and formalised place for work (Cameron & Quinn, 2011). The procedure manages what individuals do. The leaders in this type of culture have great pleasure in being good organisers and coordinators. The most critical thing for leaders is sustaining a smooth-running organisation. The organisation can hold together by policies and rules. The stability

and performance with effective and smooth operations are considered the long-term concerns of the organisation. The success of the organisation focused on smooth scheduling, dependable delivery, and low cost. The management of employees in this type of culture, stressed on predictability and safe employment (Cameron & Quinn, 2011). The organisation in this type of culture also emphasised on internal maintenance with a demand for control and stability.

The Market Culture

The organisation in this type of culture is result-oriented (Cameron & Quinn, 2011). The organisation is more concerned with getting the tasks done. The individuals in the organisation are goal-oriented and competitive. The leaders in this organisation are tough and serious competitors, drivers, and creators. Winning is the most important component that helps the organisation to hold together. The organisation is concerned more about achieving success and reputation. The long-term focus in this type of culture is on the competitive action and accomplishment of measurable objectives and goals (Cameron & Quinn, 2011). The success of this organisation expressed by way of penetration and market share. Moreover, the two important components of this type of culture are market leadership and competitive pricing. The hard-driving competitiveness is the organisational style in this organisation. The organisation in this type of culture emphasised on external positioning with more demand for control and stability.

2.3.4 Leadership Role and Management Skills Based on the OCAI

The leaders can act differently based on the culture that they belong to. In each of these cultures that were identified by Cameron and Quinn (2011), the leaders have different roles and management skills which explained in detail in the following

sections. Moreover, Figure 2.2 shows the management skill profile of leadership based on the different culture.

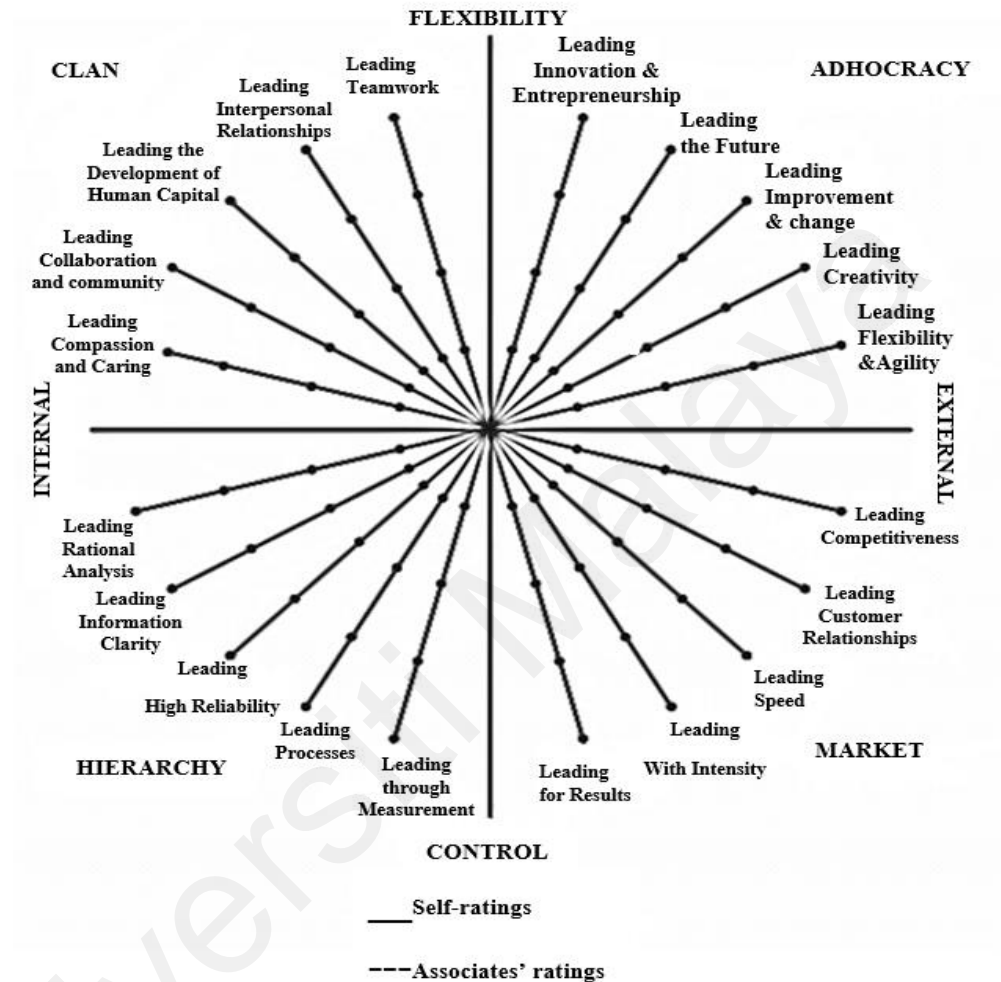


Figure 2.2. The Form of Plotting the Management Skill Profile (Source: Cameron & Quinn, 2011, p. 225)

Clan Culture. Leadership has a significant role in the clan culture. Leaders seek consensus and manage the conflicts in the organisation (Cameron & Quinn, 2011). They get individuals in the organisation to be involved in problem solving and decision-making. They pursue openness and participation. They characterised by empathy and caring for others. They are aware of individuals and care more about

their needs. They follow the morale and commitment standards. Their effectiveness in the organisation based on shared trust and respect (Cameron & Quinn, 2011).

Adhocracy culture. The leaders in adhocracy culture are creative and clever (Cameron & Quinn, 2011). They also envision a change in the organisation. Their effectiveness is based on generating hope in individuals and the anticipation of a better future. They follow the adaptation and innovation. Their thinking focused on future-oriented. They stress on where the organisation is moving and focuses more on the possibilities or probabilities. This style of leadership is characterised by strategic direction and continuing development of the current activities in the organisation (Cameron & Quinn, 2011).

Hierarchy Culture. The leaders in hierarchy culture are well informed and are experts technically (Cameron & Quinn, 2011). They prefer to keep track of the details and provide expertise. Their effect on the organisation is based on the control of information. They pursue the management of information and documentation. Leaders in this culture are reliable and dependable. They prefer to follow the work and keep the structure. Their effect on the organisation is based on managing schedules, situational engineering, and giving tasks. Leaders in this culture follow control and stability (Cameron & Quinn, 2011).

Market Culture. The leaders in market culture are decisive and aggressive (Cameron & Quinn, 2011). They seek to follow objectives and goals which are empowered by competitive situations. The dominant goal in this culture is winning. They also stress on external competitors and the position of the marketplace. They are task-oriented and are focused on their work. They worked very hard to get things done. Their effect on the organisation is based on strength and logical arguments around achieving things. They also seek to achieve productivity in the workplace.

The OCAI is a unique instrument that can be used widely in different organisations and cultures. The OCAI can identify the type of culture, the strengths of organisational culture, and its congruence. Hence, several researchers utilised the OCAI to measure and assess the type of culture in higher education institutions.

2.3.5 Studies Utilising the OCAI to Identify the Type of Organisational Culture in the Institutions

2.3.5.1 Type of Organisational Culture in the Higher Educational Institutions

Organisational culture affects individuals within the community (Vasyakin et al., 2016). Every organisation has its own culture that affects individuals which leads to a remarkable change in the performance and outcomes (Haque & Anwar, 2012; Imam et al., 2013; Vasyakin et al., 2016). The organisational culture in the higher education sector is a very special case. The reason for its special case rests on the idea that the education system has its self-organised system which is based on learning and knowledge (Vasyakin et al., 2016). This system serves different external and internal relations between leaders, staff, and students, alumni, parents, and their partnerships with other educational institutions. Therefore, the diversity of these relationships makes scholars study the idea of organisational culture within the context of higher education institutions to get a clearer vision of the individuals' attitude towards it.

Several studies have conducted to measure the type of organisational culture in higher education institutions utilising the OCAI model developed by Cameron and Quinn (1999, 2000, 2004, 2011). They considered the OCAI as the most suitable instrument that can assess the culture in the higher education sector (Alshibani &

Alatwi, 2011; Fralinger & Olson, 2007; Giritli et al., 2013; McCaffery, 2010; Mozaffari, 2008; Pennington, Townsend, & Cummins, 2003; Schimmoeller, 2010; Vasyakin et al., 2016). This instrument clarifies the type of culture being practised by organisations in the current situation, and what type of culture that preferred for organisations in the future. The following section involved previous studies which focused on assessing the organisational culture in higher education institutions using the OCAI.

Several studies have been conducted in several higher education institutions to assess the organisational culture using the OCAI (Alshibani & Alatwi, 2011; Vasyakin et al., 2016). Moreover, other studies were conducted to identify the important role that organisational culture plays in decision-making in higher education institution also using the OCAI (Fralinger & Olson, 2007). Based on that, a number of studies were conducted at the university level in order to assess the culture and to which degree it affects the situation and individuals within the university. Likewise, a study was conducted by Fralinger and Olson (2007) to explore the notion of culture within the context of university-level at Rowan University, NJ.

This study focused on a sample of 50 undergraduate students at two courses of health education. The study was conducted with respect to three levels of culture at the Department of Health and Exercise Science, which is: Espoused Values, Artifacts, and Basic Underlying Assumptions (Fralinger & Olson, 2007). Moreover, the researchers utilised a pretest- only survey design and applied the OCAI as an assessment tool. They used OCAI in order to clarify how the culture of department affects the feelings, insights, thoughts, and the perceptions of students. The researchers utilised the OCAI as an assessment tool to allow students to assess the type of culture of their department from their perspectives. They evaluated the present type of department culture and the

preferred culture after five years. The researchers hypothesised that the perception of students on departmental culture would correspond with the objectives, goals and mission of the academic department and university (Fralinger & Olson, 2007).

The results of this study highlighted that the Clan culture is the current and preferred culture of the department from the students' perspective (Fralinger & Olson, 2007). This means that students feel that academics, staff, and faculty members in the department have fulfilled the mission, objectives, and goals of the department and university. This result indicated that students are satisfied with the culture in their department, and they desired to continue and develop in the future. Obviously, this study implied that the Clan culture is the most appropriate type of culture within the university level. It refers to one idea that the staff and faculty members fulfilled the mission, goals and the objectives that were designed by the department and the university.

Another study was conducted by Mozaffari (2008) to provide clear evidence of the relationship between different kinds of organisational culture, style of leadership, and administrative effectiveness in higher education institutions. The study conducted on nine different universities in Iran. The researcher collected a survey questionnaire of 562 out of 3839 full-time administrators and faculty members. The researcher utilised theOCAI for assessing the organisational culture in Iranian universities. It also used to measure the type of current and preferred culture in universities. He also used theMSAI for measuring the managerial leadership skills. The researcher indicated that theOCAI is a reliable and valid measure of organisational culture, andMSAI is also an accurate and reliable measure for managerial leadership skills (Mozaffari, 2008).

The researcher answered the research question, which focused on whether the organisational culture of the universities of Iran corresponds with the style of leadership and managerial skills. He analysed the data using SPSS to find the significant relationship between variables. The researcher concluded that the current culture in the nine universities is Hierarchy culture, but the preferred culture in the future is Adhocracy culture (Mozaffari, 2008). This result indicated that the current culture that practised in higher education in Iran is not consistent with the desired culture.

Moreover, the researcher concluded that Adhocracy culture is the most effective and valuable type of culture in the context of higher education institutions (Mozaffari, 2008). The results pointed out that there is a relationship between organisational culture and style of leadership. The findings have proven that the hypothesis of the study established that the more congruence between organisational culture and skills of leadership would lead to more effectiveness in managerial skills. This indicated that the relationship between the effectiveness of managerial skills and leadership style is mediated by the congruence of culture (Mozaffari, 2008). Clearly, the most effective type of culture in the universities is Adhocracy culture which is considered the most dynamic, effective, entrepreneurial, and creative culture within the workplace. The congruence between organisational culture and leadership style will lead to the desired effects in the higher education sector.

Similarly, a study was conducted by Alshibani and Alatwi (2011) to measure the organisational culture in eleven colleges at Karbala University in Iraq. The study designed to explore the gap of organisational culture at the university level. The researchers utilised theOCAI by Cameron and Quinn which was distributed between 254 different instructors at Karbala University. They used theOCAI to identify three

important steps, which are: measuring the present culture within the organisation, measuring the preferred culture after five years, and analysing the gap of organisational culture at the university level (Alshibani & Alatwi, 2011).

This study was focused on what rate the instructors can give for the current university culture, and what they prefer to be their university culture after five years. In order to analyse the data, the researchers used Structural Equation Modeling to measure the reliability of the instrument (Alshibani & Alatwi, 2011). They used for analysing the confirmatory factor analyses, Cronbach Alpha, mean and standard deviation. The result of the study showed that the current culture that is practised by the organisation is Hierarchy culture. In contrast, the preferred culture after five years is the Clan culture (Alshibani & Alatwi, 2011). Clearly, the results indicated that the instructors who work in the university do not prefer the current culture in Karbala University. They prefer changing the culture from Hierarchy culture to Clan culture. They believe that the Clan culture will transform the university and put it in the desired position.

Likewise, a study was conducted in the University of Economics at Plekhanov Russian to examine the organisational culture in the higher education institution and students' attitudes towards it. The study conducted by Vasyakin et al. (2016) identified students' involvement in higher education' culture and studied what the organisational culture principles that influence students are. The researchers utilised the OCAI is a survey tool to identify the type of organisational culture that students experienced and what they prefer for a change in their university.

The OCAI refers to four different types of organisational culture, which are: Hierarchy, Adhocracy, Clan, and Market culture. Nevertheless, the researcher analysed the data and concluded that the type of organisational culture that prevails

for students' perspectives is Hierarchy culture. Moreover, the study pointed out that students expect some changes in the type of organisational culture within their university in the future (Vasyakin et al., 2016).

The students distinguished that the type of organisational culture within their university is hierarchy culture, but they prefer to change this type gradually in the future to adhocracy culture. They prefer to change it to adhocracy culture and enhance the market and clan culture at the same time (Vasyakin et al., 2016). Clearly, the results of this study give leaders and stakeholders a direction for achieving the desired development of the university's organisational culture. They will put into consideration that organisational culture within the context of higher education should be adjusted, adapted, stimulated, and changed continually. It should be continually developed in order to reach idealism.

To sum up, it is clear from the above studies that the culture being practised in the context of higher education is Hierarchy culture. The results of the three studies of Mozaffari (2008), Alshibani and Alatwi (2011), and Vasyakin et al. (2016) pointed out that the current type of culture in the context of higher education is Hierarchy culture. Individuals who belong to higher education institutions do not prefer this type of culture. Academic leaders, faculty members, staffs, and students prefer to change the Hierarchy culture to the most powerful culture in the future, which are, Clan culture and Adhocracy culture. Individuals of Mozaffari (2008) and Vasyakin et al. (2016) studies prefer to change their culture to Adhocracy culture in the future. Nevertheless, the individuals of the studies of Fralinger and Olson (2007) and Alshibani and Alatwi (2011) prefer the Clan culture for the next five years. Therefore, Clan culture and Adhocracy culture are the most powerful cultures in the context of higher education.

2.3.5.2 Type of Organisational Culture in General Education

Institutions (The K-12 Educational Sector)

Examining the type of prevalent culture is not only specified to higher education but also include general education sectors like schools. A number of studies conducted to identify the culture within the school environment which gathered remarkable results. One of the studies was conducted with schools in Germany by Berkemeyer et al. (2016) to provide a theoretical foundation of school culture. Their study aimed to investigate the school culture in Germany. In order to examine the type of culture within the school, they adopted the instrument developed by Cameron and Quinn, which is the OCAI. They focused on 40 schools in German-speaking nations and applied the questionnaire of OCAI-SK that was adapted by MÜthing (2013) based on OCAI by Cameron and Quinn.

The questionnaire distributed among 40 German Schools. In the first part of the survey, 1,058 teachers filled up the questionnaire. In the second part of the survey, 773 teachers filled up the questionnaire. The results of the study indicated that OCAI-SK is a reliable and trustworthy instrument which can be utilised to examine the school culture. The results showed that using the Chi-square test also reveals the cultures within the school, which were steady all the time. Latent Class Analysis (LCA) showed that schools have four main cultural profiles (Berkemeyer et al., 2016).

Moreover, the results concluded that most of the schools in Germany were categorised using the Clan Culture while a minority of the schools rated their type of culture as adhocracy culture (Berkemeyer et al., 2016). This refers to the one idea that the majority of the schools in Germany are focused on internal processes, and are open to the flexibility of organisation due to governmental embedment. For the minority of the schools, they are ready to take the risk and be innovative (Berkemeyer et al., 2016).

The researcher stated that OCAI-SK is an adequate instrument that can use for investigating and assessing the school culture. Clan Culture is the most suitable type of culture for any school that enhances the creativity and performance of the school.

Other studies utilised the OCAI at non-education institutions to examine the effect of culture on the behaviours of staffs Marinova (2005). The study found that each culture has its unique characteristics that impact differently on the individuals and performance of the organisation. Another study was conducted by Chin-Loy and Mujtaba (2007) to identify the impact of organisational culture on the success of knowledge management practices with 49 companies of North American. The study examined the interaction between the four types of culture (Clan, Adhocracy, Market, and Hierarchy) and knowledge management practices. It also examined how these types of culture affect organisational benefits. The results indicated that knowledge management practices vary its impact on organisational benefits according to the type of culture that follows. Apparently, the type of culture within the organisation has a direct effect on the practices that happened in the organisation.

Another study was conducted by Widjaja, Eringa, and Gehrels (2007) in the Netherlands to identify the type of organisational culture in middle-sized restaurants. The study used the OCAI. The findings from the study indicated that the Clan culture is the current type of culture that is dominating. They also pointed out that the Clan culture is also the type of culture that is preferred in the future. Needless to say, the Clan culture seems to be the most appropriate culture for business sectors that have positively impacted the outcome of the organisation.

Another study was conducted by Nummelin (2008) to measure the organisational culture in the construction sector in Finland. The researcher distributed the OCAI instrument to measure the current and preferred culture with the

organisation. The results indicated that the current type of culture in their organisation is Market culture, but they preferred to be Clan culture in future. It appears that the individuals who work in the construction sectors in Finland are desirous of changing the current type of culture to a better culture, which is the Clan culture. They opined that the clan culture would be the most appropriate culture for the construction sector.

To sum up, most educational and non-educational organisations preferred the Clan culture as the best type of culture that may lead to desirable outcomes and enhances creativity and performance. Other educational organisations preferred the adhocracy culture because it is considered the most dynamic, valuable, effective, entrepreneurial, and creative form of culture in the context of higher education institutions. Moreover, some studies indicated that each organisation has its unique culture that has a direct and indirect impact on individuals and organisations.

2.3.6 Organisational Culture and the Performance in Higher Education

Institutions

Several scholars have studied the relationship between organisational culture and the performance of the organisation (Denison, 2000; Haque & Anwar, 2012; Hofstede, 1991; Imam et al., 2013; James Ng'ang'a & Nyongesa, 2012; Kotrba et al., 2012). They found that organisational culture is very important for achieving the desired performance of the organisation. According to James Ng'ang'a and Nyongesa (2012), culture influences the attitude and behaviour of individuals in the organisation. Hence, culture plays a significant role in the successful institutional performance. This refers clearly to the strong relationship between culture in the organisation and performance.

Several studies have conducted to identify the impact of organisational culture on organisational performance with the mediating role of several components that can affect the performance too. One of these studies has conducted on Pakistani higher education institution. Imam et al., (2013) conducted a study to examine the relationship between organisational culture and the performance of higher education institution with a mediating role on the readiness of change of individuals in Pakistan. This research was mainly focused on academic leaders and how the significance of organisational culture and individual's readiness for change can help them to achieve the desired performance of higher education setting (Imam et al., 2013). They have distributed and collected data from 307 faculty members who hold doctorate degrees and are working in higher education institutions in Pakistan.

The results of this study emphasised that individual readiness for change plays a mediating effect between organisational culture and performance (Imam et al., 2013). It also indicated that organisational culture and individual readiness for change play a significant role in achieving the required performance of higher education institutions. Certainly, academic leaders and faculty members have to be aware of their readiness of change and the role of organisational culture, which both lead to the desired performance in the higher education sector.

2.3.7 Organisational Culture and Leadership in Higher Education

Institutions

Organisational culture and leadership are very integrated components within any organisation (Giritli et al., 2013). Several studies of organisational culture mentioned about the relationship between leaders and their ability to create or maintain specific types of culture (Mozaffari, 2008; Schein, 1992). These studies pointed out

that there is a link between leadership and organisational culture and both of them are important for an effective organisation. Moreover, Giritli et al. (2013) pointed out that organisational culture and styles of leadership are not independent of each other and both of them play a significant role in determining the effectiveness of an organisation.

Furthermore, organisational culture is to mediate the relationship between leadership style and the performance of the organisation (Ogbonna & Harris, 2000). Likewise, leadership style is not linked directly to the achievement of good performance of an organisation, but it can impact on the performance indirectly with the presence of organisational culture. This means that there is a significant relationship between organisational culture and leadership in different sectors (Block, 2003; Giritli et al., 2013; Ogbonna & Harris, 2000).

Several studies were conducted to identify the relationship between leadership style and the type of organisational culture that is practised in the organisation (Giritli et al., 2013; Pennington et al., 2003; Schimmoeller, 2010). These studies utilised the OCAI by Cameron and Quinn to measure the culture, and different models related to leadership styles in order to find out which leadership style is more linked to a specific type of culture.

Similarly, one of these studies was conducted by Pennington et al. (2003) to find out which style of leadership is connected to the specific type of culture based on the OCAI by Cameron and Quinn and Kouses' and Posner's five behaviours of leadership. They have found that transformational leadership style is positively related to the Clan culture and Adhocracy culture. Nevertheless, they also concluded that a transformational leadership style is negatively related to the Hierarchy and Market culture.

Another similar study was also conducted by Schimmoeller (2010) to find out whether if there is any correlation between leadership style and type of organisational culture based on the OCAI by Cameron and Quinn. The researcher found out that there is a positive relationship between both transformational leadership style and transactional leadership style in both the Clan and Adhocracy culture. Nonetheless, another study conducted by Zehir et al. (2011), which concluded with different results. Their study indicated that there is a positive relationship between transactional leadership style and both types of culture, which are Hierarchy and Market culture.

Likewise, a study was conducted in Turkey by Giritli et al. (2013) to examine the link between leadership and organisational culture. The purpose of his study was to find out how the leadership style is influenced by organisational culture. The researchers utilised the OCAI by Cameron and Quinn and Hofstede's Value Survey Module (VSM). They distributed a questionnaire to 107 contracting companies and collected responses from 499 managerial personnel from the companies. The researchers also used Multinomial Logistic Regression for analysing data.

The results of the study pointed out that managers in these companies who have several characteristics of culture tend to adopt the diver styles of leadership to help their employees to be successful in their work (Giritli et al., 2013). They found that there are two different styles of leadership that are linked with the Clan culture, which is: paternalistic leadership and consultative leadership. Clearly, this study proved that the most effective leadership style is a correlation to the Clan culture. Clan culture is a critical type of culture that leads to desirable outcomes.

A study was conducted at top innovative universities in the world to examine the relationship between leadership and organisational innovation through the

mediating effect of organisational culture (Li et al., 2018). It examined how organisational culture mediates between transactional leadership, transformational leadership, and the innovation of top innovative universities in the world. The researchers followed the deductive approach and utilised a survey that adopts questionnaire for measuring the organisational innovation that was widely used by expert employees facilitating the work of European Commission (Li et al., 2018). The researchers also used the Multifactor Leadership Questionnaire for measuring the transformational and transactional leadership. Also, they used the PLS-Structural Equation Modeling to analyse the data.

The results of the study indicated that the transformational leadership style leads directly to organisational innovation (Li et al., 2018). It also has a positive relationship with organisational culture. Although the transactional leadership style also has a positive relationship with organisational innovation and organisational culture, statistically the results were insignificant. Organisational culture can play a moderate role between leadership and achieving innovation of the university. While several variables can lead to creativity and innovation in university, the organisational culture is the most important component that enhances the creativity, innovation and desirable performance.

To sum up, the previous studies pointed out that there is a positive correlation between leadership style and organisational culture. These studies indicated that the most effective leadership style; for example, transformational style, is related positively to the Clan culture and Adhocracy culture. This means that the Clan and Adhocracy cultures are the most effective types of culture within any organisation. Both leadership and organisational culture have also impacted the performance and outcome of the organisation.

2.3.8 Organisational Culture in Saudi Higher Education Institution

The higher education institutions in the Kingdom of Saudi Arabia like any institute or organisation has its unique culture that creates the values, attitudes, behaviours, motivations and the principles of individuals (Alsarahani, 2012; Najmi, 2011). Albatah (2006) stated that the awareness by academic leaders, members and staff of the importance of organisational culture within Saudi Universities is a very important component to get a clear vision about the interaction between administration and education (Alsarahani, 2012). It also expresses the values and behavioural standards that which are practised by faculty members and staff inside Saudi Universities and build their organisational culture.

Although the concept of organisational culture has studied in different administration sectors around the world, this concept does not obtain the deserved interest in the Saudi administration environment (Alsarahani, 2012). Organisational culture in the context of Saudi higher education institutions also does not gain the desired attention from the scholars and researchers. Hence, there are minimal studies that examine the organisational culture and its importance in Saudi higher education institutions (Alsarahani, 2012).

Alsarahani (2012) is the first researcher who examined the level of prevalent organisational culture in the context of Saudi higher education institutions from the faculty members' perspectives. His study explored the current level of organisational culture in two Saudi Universities, which are: Aljoaf University and Haial University. His study aimed to explore the level of prevalent organisational culture from the perspective of faculty members at these two universities (Alsarahani, 2012). It also aimed to identify the relationship between organisational culture and the motivations of faculty members to work. His study also explored whether if there is a significant

difference in the participants' responses on the degree of practising the prevalent organisational culture in Aljoaf University and Haial University according to three variables which are: gender, year of experience, and academic rank (Alsarahani, 2012).

Alsarahani's study was focused on two main questions which are: (1) what is the degree of practising the prevalent organisational culture in Aljoaf and Haial Universities from the faculty members' perspectives?, (2) is there any significant differences in the degree of practising the prevalent organisational culture according to the gender, year of experience, and academic rank of the participants?. The researcher utilised the descriptive survey correlation approach to identify the relationship between organisational culture and the motivation of faculty members to work (Alsarahani, 2012). The total number of participants for the study was 468 faculty members from both universities, Aljoaf and Haial, which represent only 25% of the actual sample.

The researcher developed a questionnaire using several instruments related to organisational culture. He developed 50 items and distributed them under five fields of culture, which are: collective culture, development culture, rational culture, hierarchy culture, and gaining knowledge. He analysed the data using SPSS (Alsarahani, 2012).

The results of the study indicated that the degree of practising organisational culture at Aljoaf University and Haial University from the faculty members' perspective was high. The collective culture field is ranked the highest field compared to others. The results pointed out that both Saudi universities have a strong organisational culture that manages and organises the academic staff and faculty members. The researcher pointed out that the strong organisational culture in Saudi universities is due to the strong management and leadership in Saudi universities.

Saudi Universities are working to spread their mission and vision and create their own and unique culture in planning, managing, organising and implementation.

The results also showed that there is a significant difference in the degree of practising the prevalent organisational culture according to the gender (for the benefit of male), and academic rank (for the benefit of assistant professor and professor) (Alsarahani, 2012). There is no significant difference in the degree in practising the prevalent organisational culture according to the year of experience. Clearly, although studies of organisational culture did not get too much attention in the context of Saudi higher education institutions, a minimal number of studies pointed out that organisational culture is very important for Saudi Universities. Culture in Saudi universities is the most important component for shaping and creating individuals and enhancing the performance of the institutes.

Another study was conducted earlier in Saudi higher education institutions and focused on the relation between prevalent organisational culture and the degree of applying the total quality management at Jazan University. This study was conducted in the Jazan, southern province in the Kingdom of Saudi Arabia by Najmi (2011) to identify the degree of suitability of the current organisational culture for the application of the total quality assurance management at Jazan University. It also aimed to determine the significant relationship between the responses of the samples and different variables including their adjectives functional, work experience, and specialisation statistically. Its purpose also is to identify the specific requirements for distribution and enhancement of the culture for total quality management at Jazan University.

The researcher used a survey questionnaire and distributed them among 518 faculty members and 26 leaders at Jazan University. The total return responses of the

questionnaire were 264 from faculty members and 25 leaders. He analysed data using SPSS. The results of the study indicated that the degree of suitability of current organisational culture for the quality, from faculty members and leaders' perspective, is high (Najmi, 2011). There is a significant relationship between the responses from the sample and their adjectives functional, work experience, and specialisation (Najmi, 2011). Moreover, the results indicated that the degree of importance on the requirements for distributing and enhancing the culture for total quality management at Jazan University is highly essential.

The results also pointed out that in order to distribute and enhance the idea of culture of quality within the university, the academic members and leaders have to follow the following components which are: (1) draw an official policy about the future vision of distributing the notion of a culture of quality and applying the total quality assurance management, (2) announcement of the strategic plan of the university to spread the culture of quality and apply the total quality assurance management, (3) do more research to identify the strengths, weaknesses, opportunities and threats related to the spreading of the culture on quality (Najmi, 2011).

This study only focused on the prevalent organisational culture and its relation to the quality assurance management and how to spread the idea on the culture of quality between academic members in Jazan University. This study did not mention how organisational culture may affect the environment and what is the role that it plays for leaders, staff, students and higher education setting.

Another study was conducted by Alshalawi (2005) to identify the organisational culture at King Khalid Military College in the Kingdom of Saudi Arabia. It also aims to find out the relationship between organisational culture and the level of career affiliation regarding the variables of functional and personal

characteristics. The number of participants for the study was 147 staff out of 215 from the actual sample.

The results of the study indicated that the level of organisational culture and career affiliation was high at King Khalied Military College. The results also pointed out that there is no significant difference in the level of organisational culture for the participants regarding their functional and personal characteristics (Alsarahani, 2012). Clearly, this study indicated that organisational culture is very important for Saudi colleges and universities. The level of organisational culture among individuals at Saudi colleges and universities is high, and it refers to the importance of culture that helps individuals to achieve their duties successfully.

The minimal studies regarding the organisational culture in the Kingdom of Saudi Arabia are not specified only to the higher education sector, but also included the general education sector. Likewise, there is a study conducted in general education at Haial province in the Kingdom of Saudi Arabia. This study was conducted by Alshamari (2008) to identify the role of organisational culture when developing the professional performance of educational supervisors at Haial province. The researcher utilised the descriptive statistics approach and distributed a questionnaire between 67 educational supervisors and 203 school principals (Alshamari, 2008). The results of this study indicated that organisational culture has a significant role in developing the professional performance of Haial province (Alsarahani, 2012). Clearly, this study pointed out that organisational culture plays a significant role in developing the performance and outcomes of individuals in different educational sectors.

To sum up, the previous studies that have been conducted in the Kingdom of Saudi Arabia focused on three main points, which are: (1) identifying the degree of practising the prevalent organisational culture in a higher education setting, (2)

identifying the level of organisational culture being practised by individuals in higher education institutions, (3) and examine the role that organisational culture plays in developing the professional performance of educational supervisors. These studies concluded that the degree of prevalent organisational culture and the level of practising the organisational culture among individuals are high in Saudi higher education institutions.

Based on that, organisational culture is a fundamental concept for the Saudi education system, especially higher education. Culture in Saudi higher education institutions is the most important element that contributes towards shaping and creating individuals and enhancing the performance and outcomes. Nevertheless, the previous studies in the Kingdom have not examined the type of organisational culture that is practised in a higher education setting. They also have not examined the role that organisational culture plays for academic leaders or even for students learning outcomes. There is still a lack of studies conducted in the Kingdom to examine the mediating effect of organisational culture on leadership competencies and students learning outcomes in Saudi higher education institutions. Hence, the current study filled this gap regarding Saudi higher education.

2.3.9 Common Theme Regarding Organisational Culture and Leadership

In light of the above discussion, the researcher concluded with several important components regarding the preferred type of culture within the organisations, whether their organisation is higher education, general education or non-education sector. All the previous studies that the researcher reviewed stressed on two types of culture that they preferred to be practised in their organisation. Based on the OCAI by

Cameron and Quinn that have used in these studies, the most preferred cultures are Clan culture and Adhocracy culture.

Most studies preferred the Clan culture (Alshibani & Alatwi, 2011; Berkemeyer et al., 2016; Fralinger & Olson, 2007; Nummelin, 2008; Widjaja et al., 2007), but a lesser number of other studies preferred Adhocracy culture (Mozaffari, 2008; Vasyakin et al., 2016). Alshibani and Alatwi (2011), and Fralinger and Olson (2007) pointed out that the Clan culture is the most appropriate type of culture within the university level. Mozaffari (2008) and Vasyakin et al. (2016) concluded that Adhocracy culture is the most effective type of culture in the context of higher education institutions.

There are other findings which have connected organisational culture and leadership. Previous studies pointed out that there is a positive correlation between leadership style and the specific type of culture within the organisation. For instance, there is a positive relationship between both styles of leadership (transformational and transactional) with two types of culture (Clan culture and Adhocracy culture). The previous studies also indicated that the most appropriate type of culture that has a strong relation with leadership is Clan culture. Other studies concluded that there is a positive relationship between transactional leadership style and both types of culture, which are Hierarchy culture and, Market culture.

Clearly, although most studies concluded that the Clan culture is the most appropriate type of culture within the university level, Adhocracy culture is also considered an efficient and valuable type of culture in the context of higher education institutions. Hence, Clan culture and Adhocracy culture are the most appropriate types of culture within the context of higher education. Moreover, these two types of culture are positively related to transformational and transactional leadership styles. This

refers to both styles of leadership (transformational and transactional), and both types of cultures (Clan and Adhocracy) are integrated and very crucial components in achieving success in any organisation.

To date, the studies regarding examine the type of organisational culture using the OCAI by Cameron and Quinn in Saudi higher education still missing. Thus, this study identified the current type of organisational culture in Saudi higher education and compared the results with the previous studies that utilised the OCAI for measuring the culture within the organisation.

Leadership and organisational culture are significant elements in a higher education institution. They also have a direct and indirect relationship and impact on students learning outcomes. Therefore, the following section included an in-depth description of students learning outcomes and their relation to leadership and organisational culture in higher education institutions.

2.4 Students Learning Outcomes

2.4.1 The Concept of Learning Outcomes

The stress on learning outcomes has become more crucial for higher education institutions (Tremblay, Lalancette, & Roseveare, 2012). Focusing on developing learning outcomes is an essential element for improving teaching and students learning. To increase students learning outcomes is considered as a vital part of the mission of higher education institutions (Gabbard, 2017; Tremblay et al., 2012). Also, the performance of higher education institutions is highly related to students learning outcomes. Hence, academic leaders should pay more attention to develop students learning outcomes in higher education institutions.

The concept of learning refers to a permanent change of an individual's behaviour that appears as a result of practice (Kraiger et al., 1993). The concept of

learning outcomes refers to the predetermined knowledge and skills that students have to acquire and achieve before graduation (Gabbard, 2017). It also refers to what is expected of students to know and understand or their ability to apply what they have learned after finishing their studies (Saudi Ministry of Education, 2018).

Gabbard (2017) defined students learning outcomes from the different perspectives of faculty members. One of the faculty members identified students learning outcomes as a statement that clarifies what students have to know, what they will be able to do or express after completing or participating in a course, project, or programme (Gabbard, 2017). Another faculty member pointed out that students learning outcomes refer to the knowledge, skill values, and attitudes of students. Another concept refers to students learning outcomes as assignments of a grade. Moreover, some faculty members define it as what is expected of students to accomplish by learning specific courses (Gabbard, 2017). According to Regjo (2014), students learning outcomes refer to the knowledge, skills, and attitude that college students are trying to develop during their study of specific programme or course.

Furthermore, based on Bloom's Taxonomy (1956) the learning outcomes cover three main domains of learning objectives, which are: cognitive domain (mental skills), affective domain (emotion), and psychomotor domain (physical skills) (Clark & Lyons, 2010; Simpson, 1972). The cognitive domain covers six different levels of objectives, which are: knowledge, comprehending, applying, analysing, synthesising, and evaluating. The affective domain covers emotions, attitudes and feelings. The affective domain also includes five different levels of objectives, which are: receiving, responding, valuing, organising, and characterising. The psychomotor domain is focused on action and develops the skills or behaviour of individuals. According to Simpson (1972), the psychomotor domain contains seven levels of learning objectives,

which are: guided response, perception, set, adaptation, mechanism, complex overt response, and origination.

Gagne (1984) has another taxonomy of learning that also covers three main domains: cognitive (intellectual skills), affective (attitude), and psychomotor domain (motor skills). Gagne (1984) highlighted that there are a number of levels and types of learning, and each type and level requires specific instructions that meet students' needs. He stated that there are five diverse forms of learning outcomes that found under these domains of learning, which are: cognitive strategy, intellectual skills, attitude, verbal information, motor skills (Driscoll, 2000).

Learning outcomes cover several areas of individuals' learning. The assessment of the individuals' learning outcomes becomes the most critical part of any educational institute (Gabbard, 2017; Kraiger et al., 1993). Hence, numerous researchers and educators have developed several models to evaluate and assess the learning outcomes of individuals. They developed these models based on the taxonomy of Bloom (1956) and the taxonomy of Gagne (1984) on learning. One of the famous assessment of individual learning outcomes is the Classification Scheme of Learning Outcomes developed by Kraiger et al. (1993). Clearly, evaluating students learning outcomes involved three main sections, which are: their knowledge, skills and affective outcomes.

2.4.2 Evaluate Learning Outcomes

Kraiger et al. (1993) pointed out that there are no conceptual models that can use to evaluate the learning outcomes of individuals. Thus, Kraiger and his colleagues (1993) developed a model called the Classification Scheme of Learning Outcomes to evaluate learning outcomes. Their conceptual model was developed based on

multidimensional perspectives of the taxonomies of Bloom (1956) and Gagne (1984). They pointed out that cognitive, skills and affective outcomes are the three important elements that should categorise for learning outcomes. Therefore, they suggested, in their model, three different categories, which are: cognitive outcomes, outcomes of skill-based, and affective outcomes. Each of these categories has its components.

Based on Gagne's theory, the category of cognitive outcome involves variable knowledge, knowledge organisation, and cognitive strategies (Kraiger et al., 1993). The category of skill-based outcome comprises skill compilation and skill automaticity (Kraiger et al., 1993). The final category is affective learning outcome, which involves: motivational outcomes (disposition, goal setting, self-efficacy), and attitudinal outcomes (attitude object and attitude strength) (Kraiger et al., 1993). See Figure 1.7 in Chapter 1 that clarifies the classification scheme of learning outcomes which involves these three groups of learning outcomes.

For cognitive learning outcomes, Kraiger et al. (1993) pointed out that cognition refers to a group of variables that are related to the type and amount of knowledge and the relationship between the elements of knowledge. The category of cognitive outcomes refers to the sort and quantity of knowledge that individuals acquire. Kraiger and his colleagues have improved Gagne's categories of cognitive learning and developed three categories of cognitive measurement, which are: variable knowledge, knowledge organisation, and cognitive strategies (Kraiger et al., 1993). These three categories of learning outcomes are beneficial for measuring the learning outcomes of individuals.

Cognitive viewpoints are emphasised in the dynamic attainment, knowledge application and organisation (Kraiger et al., 1993). When individuals improve their

foundation of verbal knowledge, they start to emphasise more on gaining procedural knowledge throughout the practice. After building the foundation of knowledge, individuals will start to apply the skills that they gain in their real-life (Kraiger et al., 1993).

The second category of the classification scheme of learning outcomes is skilled-based outcomes. This category refers to developing motor and technical skills. The individuals in this category start to reproduce the trained behaviours by compilation (Kraiger et al., 1993). The performance of the individuals in this phase has less error but are more flexible and well mannered. Moreover, they can recognise a suitable condition for using their skills (Kraiger et al., 1993).

The third category of the classification scheme of learning outcomes is affective outcomes. In this category, Kraiger et al. (1993) used Gagne's theory to support the idea of attitudes that can identify the performance and the behaviour of individuals. Also, Kraiger et al. (1993) determined three indicators that are related to the motivational tendency, which are: goal setting, self-efficacy, and motivational dispositions. They also found that individuals who are committed to a particular, and more complex, goals are more likely to develop their performance.

All of Bloom's taxonomy, Gagne's theory, and Kraiger et al.'s classification scheme of learning outcomes indicated that skills, knowledge, and attitudes of students are the most essential components for achieving the desired outcomes of students learning. Hence, learning outcomes are significant for students, especially in the higher education sector. The higher education sector is responsible for graduating qualified individuals who can enhance the country's development. Therefore, faculty members, academic leaders, and stakeholders should be more concerned with developing the

learning outcomes of students. By improving the learning outcomes of students, the governments will ensure that the desired outcome of students will contribute to the growth of the economy of any country.

Besides Kraiger et al.'s classification scheme of learning outcomes, Astin's (1984) theory of students' involvements referred to that academic performance is highly related to the students' involvement in college. Astin (1984) believed that his approach could provide a link between the variables highlighted in traditional pedagogical theories and the outcomes desired by faculty members and students in this era. It helps the educators to focus more on what students do, especially in terms of how students are motivated and how much energy are college students using in their learning process. It argues that students' development will not be remarkable if only the academicians focus on teaching methods, books, course content, and laboratory features. Students' involvement is more important and useful to improve learning outcomes and academic performance than the resources and techniques used by educators (Astin, 1984). Therefore, Astin's (1984) theory is vital for higher education. It provides strong evidence to encourage co-curricular involvement of college students. It indicates the amount and the quality of psychological and physical energy that higher education students invest in their college life. Thus, faculty members and academic leaders must strive to transform the learning environment into a more prosperous and effective setting for higher education students.

Additionally, academic leaders need to devote more attention to the role of higher education and how they impact positively on students' academic performance. Several studies conducted by Alnawasreh et al. (2019), Astin (1986), Balwant et al. (2019), Balwant (2018), Cha et al. (2019), and Soares and Lopes (2020) argued that leadership has a positive effect on students' academic performance in an educational

environment. Conclusively, academic performance is highly associated with effective academic leadership.

Academic performance is the most important concept in the context of higher education (Honicke & Broadbent, 2016). The term academic performance also refers to the academic achievement as stated by Lei, Cui and Zhou, (2018) and Rashid and Asghar (2016). It refers to the extent to which students have achieved their educational goals. Cachia, Lynam, and Stock (2018) deduced that academic success is associated with the achievement of comprehensive assessment as required by learning outcomes. The study by York, Gibson, and Rankin (2015) stressed that academic success could be recognised as an achievement of knowledge shown by high assessment grades, but it could also be referred to the graduates' ability to obtain a qualified role correlated to their degree.

Several studies described the academic performance of students as the learning outcomes of students in higher education (Cachia et al., 2018; Balwant, 2016; Honicke & Broadbent, 2016). Besides, Astin (1986) mentioned in his theory that the involvement and engagement in higher education are associated with students' performance and their outcomes. Theoretically speaking, students involvement in higher education describes how the outcomes of higher education can be observed in relation to how college students develop as a result of involvement (Astin, 1986). Lei et al., (2018) in their research asserted that academic performance is highly associated with students' involvement in college. Therefore, students' involvement is deemed critically important, hence the learning outcomes need to be improved. Also, the student's engagement and involvement are considered essential to academic performance (Reyes et al., 2012). Studies pointed out that student engagement is vital to academic achievement (Astin, 1986; Lei et al., 2018). Students involvement are

attentive and participate in the discussions and activities in the classes to demonstrate their motivation to learn (Reyes et al., 2012).

Academic performance is usually used to predict the achievement and success of the system of education, and to measure any changes in students' performance (Lei et al., 2018). It refers to the academic goals achieved by students based on their grades or grade point average (GPA) (Balwant, 2016). The GPA is a tool commonly utilised to measure the outcome among higher education samples that study academic achievement and performance outcomes (Honicke & Broadbent, 2016). Thus, academic performance is part of the learning outcomes. However, the current study has assessed the academic performance as a learning outcome based on students' involvement and engagement in higher education and based on subjective measures developed by Saudi higher education.

Educators and policymakers unanimously considered academic performance as the top priority for higher education. Developing high-quality students will lead to desirable outcomes for any country. According to Alnawasreh et al. (2019) most of the earlier studies were focused primarily on measuring academic performance using the Cumulative Grade Point Average (CGPA). Nevertheless, this measurement of CGPA revealed that there is a limitation. Alnawasreh et al. (2019) pointed out that this form of measuring academic performance does not show the real performance of student as it is only focused on a certain area at a particular period. Therefore, some scholars have developed a subjective measurement to evaluate students' academic performance in the context of higher education as proposed by Cheung and Kwok (1998), and Kobal and Musek (2001) as cited in the study of Alnawasreh et al. (2019). They employed subjective measures and developed statements to ask students about academic performance in higher education.

Furthermore, Alnawasreh et al. (2019) and York et al. (2015) pointed out that by continuously measuring the academic success and students' performance in the educational organisations using GPA is problematic. To support their claim, three different explanations were proposed (1) the earlier studies that described GPA is not an accurate measure of learning, (2) the GPA is unreliable and is variable within and between universities, (3) the GPA exemplifies a limited aspect of academic performance. Based on this discussion, the evaluation of academic performance in this current study did not focus on the GPA of students, but rather, it focused on measuring the performance based on a set of subjective tools such as subjective statements that were adopted from the theory of student's involvements in higher education (Astin 1986) and the fourth standard of teaching and learning related to the Standards Accreditation of Higher Education Institutions.

Astin (1986) stated that the academic performance is associated with students' involvement which is considered important for achieving the desired outcomes of students learning in higher education. Accordingly, academic performance is evaluated in this study as students' outcomes based on an investigation about their involvement in higher education. Besides, the investigation of the academic performance outcomes is carried out in this study according to the evaluation of some items belonging to the fourth standard of teaching and learning which are related to the Standards Accreditation of Higher Education Institutions (Saudi Ministry of Education, 2018; NCAAA, 2018). Evidence regarding the quality of learning may be attained from evaluations by students, graduate employers of programmes, statistics on programme completion and employment outcomes, proportions of students to faculty members, and statistics on the qualifications of faculty members (Saudi Ministry of Education, 2018; NCAAA, 2018).

2.4.3 Students Learning Outcomes in Higher Education Institutions

Higher education institutions are responsible for the employability of graduate students. Hence, they must be more concerned about whether the outcomes of students' learning are associated with the expectations of the workplace or not (Gabbard, 2017; Kalleburg & Dunn, 2015). Determining the students learning outcomes helps academics leaders to foster students' success in higher education institutions. Recently, the Ministry of Education emphasised on increasing students learning outcomes by improving the higher education sector. To develop higher education, the educationists should increase the competency of students' skills, students' grade point average, and their retention (Banta, 2012; Gabbard, 2017).

There is much literature which concerns the learning outcomes in higher education institutions (Gabbard, 2017). Fostering students learning outcomes in higher education institutions goes back to many useful components, such as competent academic leaders and effective faculty members. Hence, Gabbard (2017) conducted a non-experimental explanatory qualitative case study to investigate how the communication between students and faculty members on students learning will impact the students learning outcomes process, the satisfaction of their learning, and the ability of the institute to comply with the accreditation criteria. The researcher thought that the effective communication of students learning between students and faculty members is one of the best ways that enhance students learning outcomes in the higher education sector (Gabbard, 2017).

The researcher used a mixed-method survey instrument which collected data from the community colleges located in the Southeastern part of the USA. Gabbard received data from 98 faculty members and 367 students. After analysing the data, the researcher concluded that communication among faculty members and students is an

essential element that enhances students learning outcomes which leads to their satisfaction (Gabbard, 2017). The researcher highlighted several recommendations regarding improving students learning outcomes in higher education. Faculty members must communicate the students learning outcomes effectively with students (Gabbard, 2017). She also stated that academic leaders and administrators could impact on the organisational culture that surrounds the outcomes of students learning. Faculty members and academic leaders are the most crucial elements that foster students' learning in the higher education sector (Gabbard, 2017; Mansson, 2014).

Based on that, faculty members have to communicate clearly with students about their learning outcomes in order to accomplish the desired outcomes of their learning. To ensure having desired learning outcomes in higher education institutions, faculty members must be conscious of the type of learning experienced by students and the different techniques of measuring students learning (Gabbard, 2017). According to Wang and Hurley (2012), the participation of faculty members informing, analysing, and integration of students learning will lead to successful strategies to measure the outcomes of their learning. This means that the lack of faculty engagement on the process of students learning outcomes leads to the unsuccessful measurement of students learning outcomes. Therefore, academic leaders have to pay more consideration on the role of faculty members when conveying the students' learning outcomes to students. Faculty members and academic leaders are responsible for enhancing students learning outcomes in the higher education sector.

Furthermore, students learning outcomes will not improve without having competent academic leaders in the higher education sector. Shahmandi et al. (2012) pointed out that leadership has an impact on students' learning outcome at higher education institutions. The competency of leadership also plays a significant role in

creating a satisfying environment for faculty to teach effectively and providing quality education for students (Shahmandi et al., 2012). Based on that, leadership and students learning outcomes have a direct and indirect relationship. This relationship also depends on the type or style of leadership that leaders follow to enhance students learning outcomes (Day et al., 2016). Alfraih (2014) emphasised that leadership style has a significant role in transforming the education sectors and improving students' outcomes. The following section involves studies that show the impact of leadership on students learning outcomes.

2.4.4 Leadership and Students Learning Outcomes in Higher Education

Institutions

Leadership and students learning outcomes are very important components in the context of higher education. Gabbard (2017) indicated that faculty and academic leaders have to invest much energy and time to improve students learning in the higher education sector. Also, they have to make sure that learning by students is meaningful, important and relevant to them.

Still, no much meta-analysis or literature directly emphasises on the effect of academic leadership competencies on students learning outcomes or the relationship between them in the sector of higher education (Shahmandi et al., 2012; Southwell & Morgan, 2009). Most of the literature studied this issue from different angles. Researchers are focused more on the relationship between leadership and the effectiveness of the academic setting or between leadership and faculty members (Albutti, 2014; Alhojeli, 2010).

Likewise, Bryman (2007) examined the previous literature from 1985 to 2005 to identify the style of leadership that is associated with leadership effectiveness in the

higher education sector. Bryman studied peer-reviewed journals from different countries, including the United Kingdom, Australia, and the United States. He found that leadership behaviour is associated with the effectiveness of the setting (Bryman, 2007). Bryman also found that 13 behaviours of leadership behaviours are correlated with efficiency at the departmental level. Hence, Bryman found that leadership in the higher education sector has an impact on academic effectiveness (Bryman, 2007). Clearly, his examination of previous studies did not indicate directly on the impact of leadership on students learning outcomes. It just mentioned about the direct relationship between leadership and academic effectiveness.

Minimal studies indicated that leadership affects students learning outcomes at higher education institutions (Shahmandi et al., 2012). Other studies pointed out that leadership has a direct and indirect impact on students' achievements, students' outcomes and the performance of educational environment (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Gill et al., 2009; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008; Shahmandi et al., 2012). Most of these studies conducted in the K-12 sector are not related to the higher education sector.

Several previous works of literature and meta-analyses focused on the impact of leadership on students learning outcomes in the K-12 education sector. While there is a lack of studies showed to examine the link between leadership and students learning outcomes in the higher education sector, several studies conducted to identify this link in the K-12 education sector (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Southwell & Morgan, 2009). Although there are clear differences between these two sectors, both of the sectors have adequate overlaps to make it reasonable to draw a conclusion about the effect of leadership on students learning outcomes. Hence, this section included an in-depth description of the impact of leadership on students

learning outcomes in the K-12 education sector.

Recently, several studies have conducted to identify the direct and indirect impact of leadership on students learning outcomes in the K-12 sector. Similarly, a systematic review had done on eight quantitative studies which were conducted in different countries to examine the influence of leadership on students learning outcomes (Bell et al., 2003). These studies were conducted on the K-12 education sector to identify the impact of school leaders on students' behaviour, attitudes, achievements, and the contribution of the management strategies and leadership of school leaders on the outcomes.

Bell et al. (2003) have found that although school heads have an impact on students' outcomes, the impact on students' outcome is indirect. This refers to the leaders' impact on students and schools through the mediating role of school organisation, work of teachers, and the relationship with the families and community. Bell et al. (2003) pointed out that in order for leaders to impact positively on students' outcomes, they have to ensure that there is a strong sense of professional identity between school's teachers.

Leithwood, Louis, Anderson, and Wahlstrom (2004) were also concerned about the relationship between school leadership and students learning outcomes. They examined different research studies, including quantitative and qualitative case studies. They found that there is a direct and indirect effect of leadership on students learning. The total direct and indirect effects accounted for almost a quarter of the total effect on the school (Leithwood et al., 2004). Their results also showed that they had conducted an assessment that the impact of school leaders on students learning outcomes are significantly higher compared to the findings of the meta-analyses.

Leithwood and Jantzi (2008) indicated that there is a much smaller and more indirect impact of leadership on students learning. The effect of leadership on students learning outcomes is very complicated and hard to measure (Southwell & Morgan, 2009). This impact occurs by providing opportunities and support from leaders and staff teachers. Thus, teachers can make a direct impact on students learning. Based on that, leaders can impact directly on teachers or faculty members and indirectly on students learning.

Further, Southwell and Morgan (2009) indicated that several researchers conducted a meta-analysis to identify the specific behaviour of school leaders and their effect on students' achievement. Likewise, a meta-analysis was performed by Marzano, Waters and McNulty (2005) to examine 69 quantitative studies conducted on different schools in the US. Most of these studies published were theses, doctoral dissertations and conference papers. The researchers concluded that all those studies carried out over the last 35 years ago indicated that there are specific leadership behaviours affected students' achievements. The results also showed that there is a correlation between the behaviour of school leaders and students' academic outcomes.

Moreover, other studies examined the impact of school leaders on students' learning outcomes. Leithwood et al. (2010) conducted a study on 130 schools in North America to find the relationship between school leadership and students learning. They discovered that school leaders have a small effect on students learning. Their impact is considered indirect.

Another similar study was conducted by Leithwood, Patten and Jantzi (2010) to examine how leadership in schools could impact students' learning. It identified the four paths that influenced leadership, such as rational, family, organisational, and

emotions. The researchers used online surveys with teachers. The results provided some of the actions of the school principals such as improving the efficiency of their teachers by offering career advancement opportunities and offering better pay packages such as increased benefits, for example, health insurance does not make the students perform well. Instead, it makes the teachers relate well with their heads (Leithwood et al., 2010).

Leaders who care about the performance of teachers ensure they improve their teaching instructions by reviewing their performance periodically and rewarding the best-performing instructors. This will empower the teachers to perform well in class that will further boost students' grades (Leithwood et al., 2010). Hence, this refers to the indirect relation between leadership and students learning outcomes.

Similarly, a study was conducted by Pina et al. (2015) to examine the effect of school leadership on the outcomes of students. They conducted a study of six schools in Portugal. The researchers utilised a mixed-method study and collected data using a questionnaire interview with school principals and focused groups of students and departmental heads. The results of the study showed that school leaders utilised the transformational leadership style in their work (Pina et al., 2015). This style allows school leaders to improve teaching and students' outcomes. It helps them also to develop trust and collaboration between teachers in the school (Pina et al., 2015).

Further, school leaders promote a set of actions in the school in order to develop the school, the condition of the classroom, which influenced the work of teachers (Pina et al., 2015). Hence, the researchers concluded that there is a relationship between leadership and students' outcomes. This finding is in line with the results of Leithwood et al. (2010), which concluded that there is a link between

leadership and students' outcomes. When leaders enhance teachers' work and give them the necessary support, they can enhance students learning outcomes. Thus, leadership impacts directly on teachers and indirectly on students learning outcomes.

Clearly, the above studies indicated that school leaders had contributed indirectly to students' learning. This indirectly impacted the effort and the influence that leaders have in developing school's staff and teachers, providing them with the necessary support that they need. School leaders considered as the bridge between educational policies and the reformed practices that help to make any difference for the students.

To sum up, the research on the database indicated no significant results regarding the relationship between leadership and students learning outcomes in the context of higher education. Most of the previous studies focused on the link and the impact of leadership on students learning outcomes in general schools, which is the K-12 education sector. This relationship was indirect, and the leaders' impact was on students learning outcomes through the support that they give to the school's staff and teachers in order to help them to develop. The studies conducted in the K-12 sector are relevant to the sector of higher education given by the parallels between the head of schools and the departmental head of the university.

Most of the studies that focused on leadership emphasised on two styles; leadership transformational and transactional leadership styles (Southwell & Morgan, 2009). Transformational leadership is positively associated with the effectiveness of leadership, work of teachers, educational outcomes, motivation, individuals' satisfaction, and the performance of students (Chin, 2007; Leithwood & Jantzi, 2006; Southwell & Morgan, 2009). Robinson et al. (2008) stated that leaders have a positive

impact on students learning outcomes as long as they get the essential business of learning and teaching.

Based on that, the style of leaders also has an impact on students' outcomes in the K-12 educational sector. Likewise, Barker (2007) conducted a study on the school context in England. The researcher in this study used the qualitative case study of an exceptional school in England. This study aimed to examine how transformational leaders impacted student outcomes. After interviewing with staff, students, and conducting class observation, he pointed out that the head of schools played a significant role in changing the context of the school, but his role on student outcomes is unclear.

Hence, the results of this study clarified that transformational leadership has a significant impact on the school environment (Barker, 2007). It also has an impact on transforming the internal process of the school. This study concluded that transformational leadership has no apparent impact on student outcomes (Barker, 2007). Therefore, we need a different approach that can help students to succeed and reflect on the quality of student outcomes.

A similar study was conducted by Robinson, Lloyd, and Rowe (2008) to examine the impact of different leadership types on students' academic and non-academic outcomes. The researchers used the meta-analysis methodology and analysed 27 published studies regarding the relationship between students' outcomes and leadership. The first meta-analysis involved only 22 studies out of a total of 27 studies that focused on a comparison of the impact of instructional leadership and transformational leadership on students' outcomes. The second meta-analysis

involved 12 studies which focused on the comparison of the impact of five inductively resulting groups of leadership practices on the outcomes of students.

The results of the first meta-analysis study concluded that the instructional leadership style has more effect on students' outcomes compared to transformational leadership (Robinson et al., 2008). They found that the impact of instructional leadership style was three to four times on students' outcomes when compared with the effect of the transformational leadership type. The results of the study also showed that the assessment of the questionnaire used to measure leadership in educational setting discovered five different sets of leadership dimensions or practices. These leadership dimensions include: (1) evaluating teaching and the curriculum, coordinating, planning, (2) establishing goals and expectations, (3) resourcing strategically, (4) ensuring an orderly and supportive environment, (5) participating and fostering in teacher learning and development (Robinson et al., 2008).

The results of the study pointed out that instructional leadership is more effective for students' outcomes than transformational leadership (Robinson et al., 2008). This is because transformational leadership is concerned more about the relationship between followers and leaders rather than being concerned about educational tasks. The quality of the relationship between leaders and followers is not predictive on the quality of students' outcomes. Clearly, transformational leadership type has a little impact on students' outcomes compared to other types of leadership.

Another study conducted by Seashore Louis, Dretzke, and Wahlstrom (2010) using results from a national US survey. The researchers employed various survey responses derived from a sample population from across the country. The respondents included teachers from the U.S. who aimed at establishing whether some specific

attributes of school leaders have an impact on how the teachers conduct their assignments in the classroom. These characteristics included sharing leadership with teachers, for instance, delegating some duties to them, which are beyond their scope of work or getting them involved in the decision-making process (Seashore Louis et al., 2010). More traits of school leaders under study included fostering a healthy relationship with colleagues and ensuring the teachers have all the materials needed to supplement their efforts in the classroom, thus enhancing the quality of their instruction.

Secondly, the research hopes to determine whether the conduct of school administrators have an impact on the performance of the learners. The study concluded that instructional leadership style which challenged the teachers to deliver their targets and give them teaching aids could improve student grades (Seashore Louis et al., 2010). Transformational leadership who pegged to develop healthy working relationships with teachers has little or no impact on how students perform in their academics (Seashore Louis et al., 2010). Therefore, school heads should focus more on supporting teachers to improve their efficiency, such as availing teaching aids and reviewing their performance regularly.

Another study was conducted by Sebastian and Allensworth (2012) to examine how the leadership styles employed by school heads affect classroom instruction and the performance of the learners. It focused on areas such as the professional capacity of the leader and the climate the heads created in the learning environments. It focused on how different instruction methods of teachers affect students in the same school and how different school heads contribute to the varying performance trends in various schools (Sebastian & Allensworth, 2012). The study used responses from teachers who interviewed on the efficiency of their leaders and the organisational structure.

The results revealed that when school heads shift their attention towards improving the learning environment such as supporting teachers to advance their career, the outcome turns out to be a high level of job satisfaction among staff (Sebastian & Allensworth, 2012). When leaders set clear goals and inform the workers as well as provide them with learning aids to improve the instruction, the instructors make efforts to deliver quality services to the learners which further boosts their performance (Sebastian & Allensworth, 2012). Clearly, that indicates an indirect relation between leaders and students' outcomes. Leaders can impact indirectly on students learning outcomes.

A study was conducted by Alfraihi (2014) to examine how the transformational leadership style affects the students' outcomes in 86 public secondary schools in Kuwait. It aimed to investigate the direct and indirect effects of principals' transformational leadership style on students' outcomes, students' achievement, and their engagement through numbers of mediating variables such as the culture of a school, the condition of the classroom, and academic emphasis (Alfraihi, 2014). The researcher argued that transformational leadership has an impact on students and schools' outcomes.

Besides, the researcher adopted objective epistemology and positivist ontology. He collected data from 495 school principals and staff members in Kuwait's public schools. The data has analysed using SEM and confirmatory factor analysis (CFA) (Alfraihi, 2014). The results of the study indicated that transformational leadership, directly and indirectly, influence the students' outcomes (Alfraihi, 2014). It also impacts directly and indirectly on the engagement of students and their achievement as the ultimate outcomes. Clearly, the transformational leadership style has a substantial and significant effect on students' engagement and achievements.

This study only focused on students' engagement and achievements but did not mention about students learning outcomes.

Similarly, a study was conducted by Al-Safran et al. (2014) to determine how various leadership and administrative styles of school leaders affect students' academic and non-academic performance. This study used empirical research derived from different publications. In the first analysis, the researchers made a comparison between transformational and instructional leadership styles of school heads and the degree to which they impacted the performance of the learners (Al-Safran et al., 2014). Secondly, the study focused on the inductive development of different leadership practices and estimated their effects on students' performance.

The results found that instructional leadership styles have impacted the learners to a more significant extent than transformational approaches. In the second analysis, the researchers concluded that five leadership dimensions could have moderate and significant effects on student performance (Al-Safran et al., 2014). These included setting clear goals and expectations, creating a conducive learning environment, and coordinating and evaluating both the teaching and the curriculum. Furthermore, teacher participation in continued learning and career advancement, as well as strategic resourcing and planning, have an impact on students' output both inside and outside the classroom (Al-Safran et al., 2014).

Clearly, transformational leadership has little impact on students' performance but is more influential on the attitudes of the teachers towards the school environment. School administrators who focus more on improving their relationships with their teachers motivate the instructors to be more positive about the school. There is little focus on the students; therefore, the teachers might not make any impact on the

students' performance. On the other hand, instructional leadership is more attentive to improving instruction, which translates to better performance on the students.

A study conducted by Day et al. (2016) to examine the impact of school leaders on students' outcomes. The researchers examined how school leaders apply transformational and instructional strategies in their work in order to make a difference and to enhance students' outcomes. The researcher investigated on how competent leaders can combine two different styles of leadership, like transformational and instructional leadership, in different ways, in order to achieve the desired outcomes of students (Day et al., 2016). The researchers used a mixed-method study on primary and secondary schools in England. They used the survey findings of previous literature, followed by the survey on the school heads' and staff's perceptions about the essential strategies that help them to improve and foster students' outcomes, totalling 20 in-depth case studies.

The results of the study pointed out that successful school leaders, directly and indirectly, contribute in developing and improving the schools and students' outcomes through combining transformational and instructional leadership styles in their work (Day et al., 2016). This finding refers to the positive impact of leaders on students' outcomes. This study supports the previous research in terms of the indirect relation between leadership and students' learning outcomes.

In summary, all the above studies have one common theme; transformational leadership style which only helps improve the relationship between the school administrators and their teams but does not impact students' performance or their learning outcomes. The instructional administration is the most effective in helping improve students' output. It focuses on improving the efficiency of the teachers; for

instance, by holding regular performance appraisal and setting clear academic goals. These measures help improve the perception of the learners towards their teachers. Besides, it makes them more involved in school activities, which further translated to improved grades.

The above studies failed to acknowledge the significance of transformational leadership in the management of learning institutions and improving students' learning outcomes. All of them make transformational leadership appear less significant, implying that school heads do not have to embrace it. Nonetheless, it is evident from these publications which examined that without transformational leadership; the leader-follower relationships would be weak. As a result, the instructors would feel less motivated to work hard, and this would translate to weak student grades.

Therefore, when academic leaders concentrate on developing their relationships with instructors, they motivate them to embrace their assignments; for instance, by offering training opportunities for instructors to gain new skills to increase their competencies. As a result, they will deliver their services more efficiently, which further increases students' output. Motivated staff will be more compelled to handle their assignments well and even go beyond the expectations of their employers; for example, through working overtime to assist the weak students. It would be impossible to employ any type of leadership style in the educational environment in the absence of the transformational leadership approach.

Conclusively, the above studies examined how the administrative competencies of the school administrators affect students' outcome. All the publications argued that instructional leadership has a direct relationship with better student performance, while transformational leadership only facilitates leader-

follower relationships. When academic heads relate well with their employees, they will motivate them to work with competence and enhance their engagement with the students, which, in turn, translates to better student performance. Both leadership styles are, therefore, essential for the school heads in equal measure; without first achieving transformational leadership, it would be impossible to employ instructional leadership.

However, a number of studies were conducted on higher education to examine the impact of leadership on students' academic performance. Likewise, Soares and Lopes (2020) carried out a study on the impact of authentic leadership of lecturers and the psychological safety on students' academic performance in higher education. The study established that there is a positive impact of leadership on students' academic performance. Similarly, Balwant et al. (2019) also examined the impact of transformational instructor-leadership on students' academic performance and their engagement. It was ascertained that transformational instructor-leadership in higher education is related to students' academic performance.

Another study was conducted by Cha et al. (2019) to examine how leadership styles such as transformational and transactional and the demographic profiles of academic leaders can impact the students' performance in higher education. The study revealed that leadership styles and demographic profiles influence the students' performance in higher education. Balwant (2016) also investigated on the impact of transformational leadership of the instructor on students' outcomes and their academic performance as one of the outcomes of their learning. The researcher also found there is a positive impact of leadership on students' outcomes. Indeed, these studies suggested that the academic performance can be further improved through the encouragement from academic leaders and the faculty members. Hence, the academic

leaders and faculty members have a significant role in the enhancement of learning outcomes, performance, and creativity in higher education.

Evidently, only limited studies were conducted on the effect and relationship between academic leaders and students' outcomes in the context of higher education. Specifically, this type of studies is considered missing in the context of Saudi higher education. Most of the previous studies conducted in general schools, like the study conducted by Adeyemi and Bolarinwa (2013), to examine the relationship between leadership styles were used by school principals to gauge the academic performance of students. It was deduced that the autocratic style of leadership is significantly associated with academic performance. In contrast, Koh, Steers and Terborg (1995) conducted a study on the effect of transformational leadership on teachers' attitude and students' academic performance in the context of general school. The findings from the study indicated that there is an indirect effect of transformational leadership on student academic performance. However, Suraya and Yunus (2012) identified that the school principal has a vital role in determining the high-academic performance of students. Therefore, most of the previous studies indicated that leadership has a direct and indirect impact on student's academic performance.

There is another comment on the previous studies regarding leadership and its relationship and impact on students learning outcomes. So far, the investigations regarding the identifying of how competent academic leaders can impact on the knowledge, skills, and affective outcomes of students are missing in the context of higher education (APPENDIX A). Hence, the current study investigated the effect of leadership competencies on the knowledge, skills, affective outcomes, and academic performance of Saudi higher education students.

2.4.5 Leadership and Students Learning Outcomes at Saudi Higher Education Institutions

Education experts pointed out that students learning outcomes in the Saudi education system are very low (Aleassa, 2010). The study of the World Economic Forum which conducted in 2007 and 2008 on 131 countries showed that the Kingdom of Saudi Arabia ranked eight out of 131 countries as one of the best countries that have spent a large amount of money on education. Although the spending rate by the Kingdom is the highest, the performance of the Saudi educational system is still low. Aleassa (2010) stated that the National Bank Report published in 2007 indicated that the Kingdom also ranked low in the internal and external indicators for the educational system compared to other educational systems in the Middle East. Most of the reports and studies pointed out that the measurement of efficiency and quality of the Saudi education system is also low compared to other Arab countries.

Moreover, numerous international reports, statistics and conclusions regarding Saudi's students learning outcomes confirmed the lack of knowledge and skills of graduate students (Aleassa, 2010; Saudi Ministry of Education, 2018). They missed the necessary knowledge and skills required to be successful for university studies and the future job market.

Saudi higher education institutions started to solve this problem and established the preparatory year as a positive step to fill the gap that exists between high schools learning outcomes and the requirements of academic and university studies (Aleassa, 2010; Saudi Ministry of Education, 2018). The reasons behind this step are to develop students in the field of science and language studies, enhancing students' confidence, strengthening personal skills, and increasing the level of critical and creative thinking of students (Aleassa, 2010). Recently, the Ministry of Education

in the Kingdom of Saudi Arabia has embarked on new movements to increase students learning outcomes in its educational sectors (Saudi Ministry of Education, 2018). It established many programmes and committees that can help to overcome the obstacles facing the educational system and also to develop students learning outcomes.

Although there are limited studies that investigated the role of leadership in developing the performance and the outcomes of the higher education sector, there is still a lack of studies connected to leadership and its impact on students learning in Saudi higher education sector (Atlhi, 2012). Moreover, the studies that conducted on Saudi higher education only focused on identifying the required competencies of academic leaders without showing any concern on how these competencies may have an impact on students learning outcomes.

Furthermore, there is still a lack of studies in investigating how academic leaders affect students' knowledge, skills, and affective outcomes in the Saudi higher education sector. Thus, the current research conducted in the Kingdom of Saudi Arabia to analyse the effect of academic leaders on students learning outcomes in terms of their knowledge, skills, affective outcomes and academic performance in the context of higher education.

2.4.6 Organisational Culture and Students Learning Outcomes in Higher Education

Every educational institute has its own and particular culture that influences its individuals (Brady, 2005; Gaskell, 1995). Similarly, higher education has its unique culture that influences its individuals and the educational process (Brady, 2005; Bush, 2011). The culture within educational institutions has a role of shaping and changing the environment and the outcomes. Nevertheless, Regjo (2014) pointed out that there

are limited studies on higher education regarding the idea of the relationship between organisational culture change and students learning outcomes. The studies that investigated on organisational culture and student learning outcomes in the context of higher education are very minimal.

Additionally, Esposito (2009) pointed out that there is a lack of research regarding the assessment of students' learning outcomes, namely the activities out-of-classroom. Hence, he linked in his study on the assessment of students learning outcomes to the organisational culture using the OCAI for Cameron and Quinn. He focused on the organisational culture on the division of students' affairs and its relation to the learning assessment on the out-of-classroom activities.

The purpose of Esposito's (2009) study was to identify whether if any of the characteristics of the organisational culture of the students' affairs staff are correlated to the efficiency on the out-of-classroom assessment activities in higher education institutions. The study examined the relationship between organisational culture and the effectiveness of the assessment of students learning outcomes that are related to the out-of-classroom activities. The study emphasised on identifying the type of organisational culture within the division of students' affairs and its relation to the success of the learning assessment of out-of-classroom practices (Esposito, 2009). The researcher utilised the quantitative approach and the OCAI to measure the type of organisational culture.

The results of the study indicated that there is a positive relationship between organisational culture and the effectiveness in the evaluation of out-of-classroom learning (Esposito, 2009). The study clarified that there are two types of organisational culture (Clan and Adhocracy culture) that associated with this positive correlation and

the role of encouraging staff to keep a balanced external and internal focus. These two types of culture provide employees with more flexibility and discretion in decision-making. The results also showed that there is a negative relationship between organisational culture in terms of Market and Hierarchy culture and the effectiveness in the evaluation of out-of-classroom learning (Esposito, 2009). These two types of culture are sited to value the control and stability of students' affairs divisions.

Clearly, the above study indicated that there is a positive relationship between the effectiveness of students' learning outcomes assessment (out-of-classroom activities) and the characteristics of the Clan and Adhocracy culture (Esposito, 2009). While the value of the Clan culture is focused on flexible internal focus, the value of Adhocracy culture focused on the flexible external focus.

This study refers to the idea that the higher education sector needs the Clan and Adhocracy organisational culture to ensure the effectiveness of students learning outcomes. The assessment of students learning outcomes correlates with the effective organisational culture in the higher education sector. This study only focused on the learning outcomes of out-of-classroom activities. It does not mention the role that organisational culture plays in enhancing students learning outcomes in terms of their skills, knowledge and affective outcomes.

The studies regarding organisational culture and students learning outcomes are very limited in the context of higher education. Hence, the following study focused on school culture, and how it impacts on students' outcomes in the K-12 educational sector. Likewise, a study was conducted by Brady (2005) to examine the effect of school culture on students' outcomes in terms of their academic achievement and academic engagement. The researcher included several elements regarding school

culture, which are, administrators, teachers, and the peer group of adolescents. The researcher applied a mixed-method research design. He collected data using a questionnaire which was distributed between 268 students who studied in grade 11 in one of the secondary schools in Canada (Brady, 2005).

The results concluded that the institutional culture has a little impact on the academic achievement of students namely; their grade point average GPA or their enrolment of course level (Brady, 2005). In contrast, the results also showed that there is a significant effect of institutional culture on students' perceptions of their academic engagement (Brady, 2005). Hence, this study refers to the limited impact of the institutional culture on students' outcomes; specifically, in their academic achievements.

Clearly, the above studies indicated that there is a relationship between organisational culture and students learning outcomes. There is a correlation between the assessment of learning on out-of-classroom activities and the Clan and Adhocracy culture. There is also a relationship between institutional culture and students' academic achievements. Nevertheless, these studies did not clarify the role that organisational culture plays in improving the knowledge, skills, and attitudes of higher education students. Studies that clarified whether organisational culture has a relationship or impact on knowledge, skills, affective outcomes of students are still missing in higher education. Hence, the current study investigated the mediating role that organisational culture plays on academic leadership and students learning outcomes in higher education.

2.4.7 The Relationship Between Leadership Competencies,

Organisational Culture and Students Learning Outcomes

Organisational culture is a very important factor in the context of higher education. It has a significant role that academic leaders can utilise to solve several problems regarding administration sitting and students (Tierney, 1988). Some previous studies indicated that there is a strong relationship between leadership, organisational culture and the outcomes of the organisation. Snipes-Bennett (2006) mentioned in her study that the first study conducted by Kotter and Keskett (1992) proved that organisational culture does have an impact on the performance of the organisation under particular conditions.

According to Esposito (2009), four important types of culture exist in any organisation, as identified by Cameron and Quinn. These four types are Clan, Adhocracy, Market and Hierarchy culture. The types of culture that are most dominant in the higher education sector: Clan and Adhocracy culture (Esposito, 2009). These two types of culture are associated with the creativities, innovations and effectiveness in the organisation. Several studies have proved that Clan culture and Adhocracy culture are the most effective types of culture that lead to the effectiveness of higher education sector (Berrio, 2003; Cameron & Freeman, 1991; Esposito, 2009; Fralinger & Olson, 2007; Obenchain, Johnson, & Dion, 2004; Smart, Kuh, & Tierney, 1997; Smart & St. John, 1996).

At the same time, leadership has also impacted on the performance and the outcomes of the organisation (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008). Based on that, Bass and Avolio (1993) indicated that both transformational leadership and transactional leadership styles are very important for the effectiveness of any organisation. Leaders

have to acquire transformational and transactional qualities in their organisational environment because both of them are very effective for any improvement in the organisation (Snipes-Bennett, 2006; Northouse, 2016). Both styles allow academic leaders to develop their competencies and skills and become competent leaders who cause improvement in the institutes.

There were minimal studies that connected leadership, organisational culture and performance, and outcomes of the organisation. However, studies connected to the leadership, organisational culture and the outcomes of students learning in the higher education institutions still minimal. To date, there are still no much studies connected these three variables in the context of Saudi higher education. In contrast, there are some studies conducted in higher education from different angles and in other countries. Likewise, Balwant (2016) conducted a meta-analytic review regarding the relationship between transformational instructor-leadership and students' outcomes. The researcher found that the transformational instructor-leadership in teaching positively connected to students' outcomes, including their cognitive, affective, motivation, perceptions of instructor credibility, satisfaction, and academic performance. The study also found that culture and other moderators variables have significant moderators' effect on the relationship between transformational instructor-leadership and particular student outcomes in higher education.

Besides, the following section included previous studies that connected the leadership, organisational culture, and the outcomes of the performance of the organisation in different sectors. It also included studies that combined leadership with students' engagement in the school with existing mediating variables such as organisational culture.

Leithwood and Jantzi (2000) pointed out that the transformational leadership impacted significantly on the performance and the outcomes of the organisation, but its impact on students' engagement and outcomes is weak. In order for transformational leadership to impact significantly on students, it should study with the existing mediator's variables that allow leaders to use them to enhance student engagement or their outcomes. Leithwood and Jantzi (2000) mentioned in their study that Hallinger and Heck (1996) stated that several studies that investigated the direct impact of school leadership on students' outcomes had reported weak results. Other studies that include mediator or mediating variables between leadership and students outcomes have reported a significant impact.

Based on that, Leithwood and Jantzi (2000) conducted a study to examine the impact of transformational leadership on organisational conditions and students' engagement in the school by taking into consideration the effect of family education culture. The researchers considered the school conditions as a mediating variable that included three elements, which are: purpose and goals, school structure and social network, and organisational culture. They used two survey questionnaires, which distributed between 1762 teachers and 9941 students who studied in different schools in a large district.

Although the results of the study indicated that there is a significant and direct effect of transformational leadership, nevertheless, it has a weak impact on the behavioural dimension (participation) and psychological dimensions (identification) of students' engagement (Leithwood & Jantzi, 2000). Even though transformational leadership has a direct and significant impact on the conditions of the organisation, but it has a weak and significant indirect impact on the engagement of students with schools (Leithwood & Jantzi, 2000).

This study included the organisational culture as a third mediating variable that focused on improving the shared values, norms and meanings between individuals. The culture can contribute to the effectiveness of the school based on the content of values, norms, assumptions and beliefs that shape the individuals' practices and decisions (Leithwood & Jantzi, 2000). It also contributes to the effectiveness of the school based on the ability of the individuals in the school to foster and share collaborative work.

The above study only focused on one type of leadership (transformational leadership) and how it has an impact on student's engagement in schools. It included organisational culture as a mediating variable, but it did not mention how school leaders could utilise it to enhance students' engagement in schools. This study differs on the current study from different components. It was conducted on the school sector but the current study conducted in the higher education sector.

Further, it only studied one type of leadership, but the current study investigated different types of leadership. While the above study focused on students' engagement in the school as a dependent variable, the current study examined students learning outcomes as dependent variables. Ultimately, this study did not get an in-depth description of the role of organisational culture within the school sector. Hence, the current study did an in-depth investigation of the current type of culture within the higher education sector and the role that organisational culture plays in enhancing students learning outcomes.

A number of studies also conducted to identify the relationship between leadership, organisational culture, and the outcomes of the organisation. These studies which were conducted in sectors differed from the educational sectors. Likewise, a

study was conducted on ten nonprofit organisations in the USA by Snipes-Bennett (2006) to identify if there is any relationship between leadership styles, organisational culture, and the efficiency of organisational outcomes. The researcher focused on two styles of leadership, which are: transformational leadership and transactional leadership styles because both styles have been studied extensively in the previous literature (Snipes-Bennett, 2006). In order to find the relationship between leadership styles and the outcomes of organisational effectiveness, the researcher collected data using the Multifactor Leadership Questionnaire for Bass and Avolio and Organisational Description Questionnaire.

This study emphasised on comparing leadership styles with organisational culture and the outcomes of organisational effectiveness (Snipes-Bennett, 2006). The researcher in this quasi-experimental correlational quantitative study analysed the data using SPSS and focused on the Pearson correlation and *t-test* to find the relationship between independent and dependent variables. The study used the Alpha coefficient to test the reliability of the scale and the Pearson correlation. The results showed that some styles of leadership were significantly related to organisational culture and the outcomes of organisational effectiveness but other styles are not (Snipes-Bennett, 2006). The results found that there is no significant relationship between transformational leadership style evaluated by leaders and organisational culture that was perceived by leaders. The results also pointed out that there is no relationship between transactional leadership style and the observed organisational culture (Snipes-Bennett, 2006). For the leaders who perceived their organisational culture as transformational, there is no relationship between transactional leadership style and transformational organisational culture. This means that transactional leadership does not affect or impact on the transformational organisational culture.

For the leaders who perceived their organisational culture as transactional, the findings of the study showed that there is no relationship between leadership styles and transactional organisational culture (Snipes-Bennett, 2006). There is no relationship between transformational leadership style and the transactional organisation culture. This refers to the clue that transformational style does not impact on the transactional organisation culture. The results also showed that there is no relationship between transactional leadership style and transactional organisation culture (Snipes-Bennett, 2006). In contrast, the results showed that there is a strong correlation between transformational leadership style and transformational organisation culture.

The transactional leadership style has an impact on staff effectiveness, the level of their motivation at work, and the extra efforts of the staff, and the level of their satisfaction (Snipes-Bennett, 2006). The general idea of the results showed that leadership style has an impact on the outcomes of organisational effectiveness. There is a relationship between the effectiveness of the organisation and two styles of leadership, which are transformational and transactional leadership style. This refers to the leadership style, which impacted significantly on organisational culture and the effectiveness of organisational outcomes.

Clearly, the results indicated that there is a significant relationship between leadership style and organisational culture. The researcher suggested that leaders have to be aware of how their behaviour may have an impact on the organisational culture. The results also pointed out that there is a significant relationship between leadership style and the outcomes of the organisation effectiveness (Snipes-Bennett, 2006). The effectiveness of the organisation is back to both styles of leadership, transformational

and transactional leadership styles. Hence, the leaders have to make a balance in the style of leadership.

The above study has investigated leadership, organisational culture and the effectiveness of organisational outcomes in a sector that is different from the higher education sector. Also, it does not mention how leadership and organisational culture impact or have a relationship with students learning outcomes. Hence, this study is different from the current study, as this particular issue does not connect these two variables to students learning outcomes. Moreover, the above study looked at how the style of leadership has an impact on organisational culture and the organisational effectiveness outcomes.

Therefore, this study is different compared to the current study. The current study examined the relationship and effect between leadership and students learning outcomes by mediating effect of organisational culture. Organisational culture considered as a mediation between leadership and students learning outcomes. The current study does not examine the impact of leadership on organisational culture. It just focused on how academic leaders can use organisational culture to make a difference and enhance the outcomes of students learning in higher education institutions. In other words, the current study concerned about how the competencies of academic leader affect students learning outcomes via utilising organisational culture as a mediating element.

2.5 Summary

This chapter included an in-depth description and relevant literature about leadership competencies, organisational culture and students learning outcomes in the context of higher education institutions. The researcher concluded with a common theme

regarding the leadership competencies of academic leaders. From relevant literature, the researcher found that academic leaders need specific competencies to follow in order to be competent leaders in higher education institutions. Leadership competencies of academic leaders do not receive much attention from researchers in the context of higher education. There is still a lack of policies and plans regarding developing leadership competencies in the context of higher education.

The researcher found a gap in the literature where there is no framework or systematic strategies of leadership competencies of academic leaders in Saudi higher education institutions. To date, there is also no specific leadership competency level that required of competent academic leaders in Saudi higher education institutions. From the best of the researcher knowledge, there is still a lack of studies conducted in the Kingdom of Saudi Arabia to examine the relationship between leadership competencies and students learning outcomes or to analyse the effect of leadership competencies of academic leaders on students learning outcomes.

Therefore, the researcher conducted this study to fill this gap and identify the level of leadership competencies that are required of academic leaders to be competent leaders at Saudi higher education institutions. These required competencies may allow leaders to understand and use the organisational culture positively and enhance the outcomes of students learning at higher education institutions.

For the mediating variable, which was organisational culture, the researcher found numerous important components regarding the preferred type of culture within the organisations. All the previous studies regarding theOCAI by Cameron and Quinn emphasised on two types of culture that they preferred to be practised in their organisation, which are: Clan culture and Adhocracy culture.

Other studies conducted to identify the relationship between organisational culture and leadership. They indicated that there is a positive relationship between leadership style and a specific type of culture within the organisation. For instance, there is a positive relationship between both styles of leadership (transformational and transactional) with two types of culture (Clan culture and Adhocracy culture). The researcher also found that the most appropriate type of culture that has a strong relation with leadership is Clan culture.

Moreover, the researcher found that Clan culture and Adhocracy culture are the most appropriate types of culture within the context of higher education. These two types of culture are positively related to transformational and transactional leadership styles. This refers to both styles of leadership (transformational and transactional), and both types of cultures (Clan and Adhocracy) are integrated and very crucial elements in achieving success in any organisation.

From the literature, the researcher found that there is no single study that was conducted in Saudi higher education institution to examine the type of organisational culture using the OCAI by Cameron and Quinn. Thus, this study identified the current type of organisational culture in selected Saudi higher education institutions and compared the results with the previous studies that utilised the OCAI for measuring the culture within the organisation. Additionally, up to date, the researcher found that no study has clarified whether organisational culture has a relation with knowledge, skills, affective outcomes and academic performance of students in Saudi higher education sector. Therefore, the researcher conducted this study to fill these gaps.

For the dependent variable, students learning outcomes, all the previous studies pointed out that there is an indirect relationship between leadership and students' outcomes in the K-12. Leaders can impact indirectly on students through

mediate variables. When academic leaders relate well with their employees, they will motivate them to work with competence and enhance their engagement with the students, which, in turn, translates to better student performance.

Based on the above discussion, there is no single study which investigates the effect of leadership competencies of academic leaders on students' knowledge, skills, affective outcomes, and academic performance in selected Saudi higher education (APPENDIX A). Thus, the researcher conducted this study to fill these gaps in the literature. Therefore, the current study was conducted in the Kingdom of Saudi Arabia to examine the effect of leadership competencies of academic leaders on students learning outcomes via organisational culture as a mediator in the context of higher education. Clearly, the current study investigated the mediating effect of organisational culture on the relationship and effect between leadership competencies of academic leaders and students learning outcomes in Saudi higher education.

The next chapter is Chapter 3. It presented the research methodology used to achieve the objectives of the study. It included a depth description of research method, type of research design, population, sample, sampling techniques, instruments, and the method of data analysis that utilised to achieve the objectives of the study and answer research questions. It also included the results of the pilot study conducted to test the reliability and validity of the research instrument.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this study was to examine the mediating effect of organisational culture on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions. This chapter included the research methodology that used to achieve the purpose of the study and explained in detail. It covered the type of research design, population, sample, sampling techniques, instruments, and the method of data analysis. The researcher also explained the processes of developing the research instrument and the validation of this instrument. At the end of this chapter, the results of the pilot study presented to show the reliability and validity of the questionnaire used in this study.

3.2 Research Method

Research method refers to the process of collecting data. It can be qualitative or quantitative or both. Research design is a plan to conduct a study which includes the interaction between the specific method, philosophy, and strategy of enquiry (Creswell, 2018). It is a type of enquiry within different approaches, including qualitative, quantitative, and mixed methods, and it offers a particular direction when conducting a research study (Creswell, 2014). In other words, the research design is a specific procedure included in a research study, and it comprises the data collection, data analysis, and report writing (Creswell, 2012). Research design provides the researcher with a systematic plan and clear direction on how to conduct a specific study. According to Chua (2016), the researcher must use the most suitable design that will help the researcher to reach the aim of the study. Otherwise, the results of the

study will not be valid, and it may also affect other researchers negatively when they refer to results.

In this study, a quantitative research methodology using a correlational design applied. Quantitative research method allows the researcher to test the relationship between variables utilising theories (Creswell, 2012; Creswell, 2018). The researcher also explained in detail the philosophical justifications of using a quantitative approach in this study and clarified the reasons for choosing a correlation design.

3.2.1 Philosophical Justification of Using Quantitative Research Design

3.2.1.1 Research Ontology and Epistemology

In this section, the researcher first explained the philosophical worldviews of research methodology and the reasons behind utilising only the quantitative research methodology for this study. According to Creswell (2014), the concept of worldviews refers to the overall philosophical orientation and the research nature that the researcher would like to incorporate in a study. There are 4 main philosophical worldviews of research methodology which commonly discussed in the literature; namely Postpositivism, Constructivism, Transformative, and Pragmatism (Creswell, 2014). Table 3.1 below displays the specific elements associated with each of these worldviews.

Table 3.1

Four Worldviews

Postpositivism	Constructivism	Transformative	Pragmatism
- Determination	-Understanding	- Political	- Consequences of
-Reductionism	- Multiple	- Power and	actions
-Empirical	participant	justice-oriented	- Problem-
observation &	meanings	- Collaborative	centered
measurement	- Social and	- Change-oriented	- Pluralistic
-Theory	historical		- Real-world
verification	construction		practice-oriented
	- Theory		
	generation		

(Source: Creswell, 2014, P. 6)

The Postpositivism worldview presented a traditional form of research. Their assumptions are more relevant to quantitative analysis rather than qualitative research (Creswell, 2014). This worldview is also known as the scientific method of research. Other terms of labelling for this worldview included empirical science, positivist's research, and postpositivists (Creswell, 2014). The term postpositivism refers to thinking after positivism. In other words, it means that we cannot be positive about the claim of knowledge when the researcher studies the behaviour of humans or their actions. The Postpositivists refer to the philosophy of deterministic that indicates the causes that would determine the outcomes and effects (Creswell, 2018).

The research problems and issues that have been studied by postpositivists are usually those that require the need for assessing and identifying the causes that impact the outcomes (Creswell, 2014). This is especially true for scientific research that involves experimental design. The studies related to postpositivists are often focused on reducing the ideas to smaller ideas, and separating a group of ideas to be tested. This worldview also involves variables that include research questions and hypotheses.

Based on careful measurements and observation of the objective that exists, postpositivists would develop and improve the knowledge (Creswell, 2014).

The researchers following this worldview also develop numerical measures when they study the individuals' behaviour. Moreover, the accepted approach for them is the scientific approach in which the researchers would start with a theory before they collect the necessary data that would support or reject this theory (Creswell, 2014). For instance, the researchers in the quantitative approach first start with the testing theory, then they would proceed to collect data, evidence, and information from participants via specific instruments or observations by researchers.

Postpositivists who use the quantitative approach also seek to develop true statements that describe the relationship between different variables (Creswell, 2014). They examine the correlation between variables and by showing them in hypotheses or questions. Thus, the measurement of the reliability and validity of the instruments is an essential component in the quantitative study.

There are also other approaches or worldviews of research methodology that are utilised by other researchers. One of them is the Constructivist Worldview. It is also known as social constructivism or constructivism (Creswell, 2014). This worldview is often combined with interpretivism and seen as an approach of qualitative research (Creswell, 2014). In this worldview, researchers seek to understand the world that they live in and work. They develop the meaning of their experiences and address the interaction between individuals. They interpret the meanings that other individuals have about the world rather than starting the study with a theory. In other words, they develop a theory or meaning inductively.

Constructivists follow qualitative research methodology. Hence, they prefer to use open-ended questions to gain information that can share with participants (Creswell, 2014). They would also visit the sites personally to gather the information that they need. After that, they interpret the findings based on their background and experience (Creswell, 2014). This is an inductive research process, which means that the researcher generates a theory or meaning after collecting data from the field of study.

Besides, Transformative Worldview is another philosophical worldview. This worldview originated from people who felt that the theories and laws imposed by the postpositivists' views might not be appropriate for marginalised individuals in the society, such as Marxists, racial and ethnic minorities, disabled individuals, transsexuals, bisexuals, or queers (Creswell, 2014). Furthermore, the researchers in this worldview felt that constructivists did not quite understand the needs of marginalised individuals and fail to provide help for them. For the followers of transformative worldview, they believe that the enquiry of research must be intertwined with the politics and the agenda of political change and be ready to face the injustice and social oppression when it occurs (Creswell, 2014). Thus, the researchers that follow this type of worldview would undertake an action agenda which aims to make a difference and change in the participants' life.

To do so, researchers in this approach would take a social issue as the central point of the study and then focus on the participants who help the researcher to design research questions, collect data, and then analyse the information (Creswell, 2014). This means that transformative research gives the marginalised individuals a voice in which they can promote an agenda for change that will make a difference in their lives (Creswell, 2014). Clearly, this worldview focuses on the experience or lives of

marginalised individuals. It emphasises inequities from the perspective of race, disability, gender, ethnicity, and sexual orientation. Researchers would link the political and social actions to the injustices by using a programme theory of beliefs to understand how the programme works and why the problems exist.

The last philosophical worldview is the Pragmatic Worldview. It originates out of consequences, situation, and action, rather than previous conditions (Creswell, 2014). The researcher in this worldview emphasises the actual problems and would utilise all the available methodologies and approaches to understand the problem. The mixed-method studies follow the pragmatic worldview, which focuses on the research problems (Creswell, 2014). The enquiries and questions are drawn based on assumptions of quantitative and qualitative studies. The researchers have the right to select any technique, procedures, and methods that meet their purpose and help them to collect and analyse data. They can use both quantitative and qualitative data to get a deeper understanding of the research problem (Creswell, 2014). The research that follows this worldview may involve a theoretical lens and postmodern turn. Pragmatism in the mixed-method studies would open the door for several worldviews, multiple methods, various assumptions, numerous forms of data collection, and data analysis.

After reviewing the philosophical worldviews of research, the researcher found that the Postpositivist Worldview is the most appropriate research philosophy for the current study. The Postpositivist assumptions are more in favour of quantitative analysis (Creswell, 2014, 2018). Quantitative study starts with the testing of a theory. The data and information are collected based on the measures that are completed by the participants. Also, the researcher in quantitative research will develop the relationship between variables to show this relationship in terms of hypothesis and

research questions (Creswell, 2014, 2018). The most crucial thing in quantitative research is the standard of reliability and validity of the instruments.

Having chosen the most suitable worldview, the current study was formulated based on the testing of several theories related to leadership, organisational culture, and students' learning outcomes. It also focused on identifying the effect between 3 variables, namely, leadership competencies, organisational culture, and students' learning outcomes. The data were collected from the participants using questionnaires. The reliability and validity of the questionnaire will be vital to determine if the instrument is a good one to be used in the study.

To sum up, the current study utilised a quantitative research method that reflects Postpositivist philosophical assumptions. It aimed to test several theories related to this study. This research method examined the effect between different variables in order to answer the research questions and hypotheses.

3.2.2 Research Design

Research design is a type of enquiry generally found within quantitative, qualitative, and mixed methods research that provides a particular direction for a research study (Creswell, 2014, 2018; Fraenkel, Wallen, & Hyun, 2015). The researchers or the enquirers select the appropriate method of study, be it qualitative, quantitative, or mixed-method, then decide on the type of study design that is suitable for each of these methods.

For the quantitative studies, there are 2 main designs; namely, experimental design and non-experimental design. The experimental design includes true experiments, quasi-experiments, and single-subject experiments. Non-experimental research involves causal-comparative research and correlational design (Creswell,

2014, 2018). The researcher in causal-comparative research compares different groups in terms of a cause that has already occurred. In contrast, the researchers in correlational design utilise the correlational statistic to express or measure the relationship between different variables or groups of scores (Creswell, 2012, 2014, 2018). These designs can expand to study complex relationships between variables, via the techniques of logistics regression, hierarchical linear modelling, and structural equation modelling (Creswell, 2014, 2018). Quantitative research involves using elaborate structural equation models that would combine the causal path and the identification of the mutual strength of several variables.

Based on the above explanation, the most suitable design for this quantitative study is the correlational design. Correlational design is a technique used in quantitative research that allows the researcher to measure the degree of relationship between the number of variables via the statistical technique of correlational analysis (Creswell, 2012; Creswell, 2014; Fraenkel et al., 2015). The degree of relationship can be presented as a number to indicate if one variable can predict another variable or whether the two variables are related to each other.

Moreover, the researcher in this quantitative study followed the survey research design. According to Creswell (2014, 2018), survey research offers a numerical description of the opinions and attitudes of a population by studying and examining a sample of the population. That could be done using questionnaires and structured interviews to collect data that allow the researcher to generalise the findings from the sample to the population (Creswell, 2014; Fowler, 2008).

In summary, the current study followed the quantitative research method and applied the correlational design technique. It also utilised a survey questionnaire to

collect data from a sample population. Moreover, the researcher analysed data using the Statistical Package for Social Science (SPSS) software program (V23) and the Partial Least Squares - Structural Equation Modelling (PLS-SEM) to identify the strength of several variables and the direct and indirect effect between variables.

3.3 Population and Sampling

The population defined as a group of individuals who live with the same habit and in the same area and have the ability to interact with each other (Waples & Gaggiotti, 2006). According to Chua (2016), population refers to the whole group of people that will be studied. Moreover, a research sample defined as the number of subjects found in a specific population that selected for the study. Chua (2016) pointed out that sampling refers to a procedure of selecting several participants from a population as respondents for the research study. Selecting an appropriate sample for the research study is a very important component because failure to obtain the suitable sample for the study will reduce the reliability and validity of the study (Creswell, 2018; Chua, 2016). In other words, the quality and reliability of the results depend on the correct sampling method. Proper planning and careful selection of the sample will reduce errors, and save the cost and time of the researcher.

In this study, the researcher collected data from a population comprising of faculty members working in higher education institutions in the Jazan province. Faculty members who participated in this study were professors and lecturers who belong to the selected Saudi higher education institutions. They have been selected because they are considered as ideal respondents due to their direct relationship with both academic leaders (head of the department) and students. Also, they apply direct and indirect effects on the higher education system. Indeed, faculty members in higher

education hold leadership position too, and they act as leaders. Kelly (2018) described that the concept of leadership is not limited to individuals in formal positions of leadership. However, all faculty members, in one way or another, fill the role of leadership and may ultimately turn out to be formal leaders.

Faculty members like professors are considered leaders due to their official authority inside the context of higher education (Braskamp, 2009). They hold effective leadership position especially when they share their voice and inspire others to communicate their views within a community of challenge and create openness to the new ideas of individuals with whom they interact—students and colleagues. They engage in intrapersonal thinking and improve a sense of personal commitment. They empower their strengths to bring out the contributions of others for the good of higher education. Faculty members work directly to advance the mission of teaching, learning, and research in higher education. Kezar, Lester, Carducci, Gallant, and McGavin (2007) mentioned that faculty members are considered as the supervisors of campus leadership and decision making. The leadership role of faculty members remains vital to the improvement in teaching, developments in knowledge, and changes in several policies and practices on campus. Accordingly, faculty members are considered as ideal respondents of the current study due to their formal authority inside the context of higher education and direct relation to both academic leaders and students.

Jazan Province is located in the southern part of the Kingdom of Saudi Arabia. It has two higher education institutions, which are the Jazan University (JU) and the Technical and Vocational Training Corporation (TVTC). JU has 25 colleges with 111 departments whereas TVTC comprises of 5 colleges and 3 institutes. The total number of faculty members in JU was 3431 and in TVTC, 397 faculty members. Therefore,

the total number of populations for this study was 3828 faculty members (APPENDIX B). Table 3.2 below shows the total number of population selected of the current study.

Table 3.2

Population

		JU	TVTC	Total
Number of	Faculties	25	-	25
	Colleges	-	5	5
	Departments	111	-	111
	Institutes	-	3	3
	Faculty Members	3431	397	3828

Determining the correct sample size is a very important component to achieve success in a study and to avoid any error. Creswell (2012) stated that it is better to select a large sample of the population because a larger sample leads to less potential error. According to Chua (2016), if the study population is 3500, then the sample size would be 346. If the study population is 4000, the sample size would be 351. This is based on the determination of sample size by Krejcie and Morgan's (1970). Hence, the sample size based on a population of 3828 members in this study was more than 350 faculty members.

Besides, the sample size determination can also be done using software programs or online sample size calculator. The researcher used an online software calculator in Raosoft.com that estimated a minimum sample size of 350 participants for the population size of 3828 (Raosoft, 2011) (see APPENDIX C). Further, Creswell (2018) pointed out that the sample size of the study should be larger to avoid any problem that may occur in the study or prevent any potential error. Based on Creswell's assumption, Krejcie and Morgan's table of sample size (1970), Chua

(2016), and Raosoft sample size online calculator (APPENDIX C), the sample size of the study inflated to more than 350 participants to avoid any unexpected error.

As for sampling technique, there are 2 strategies for quantitative sampling, which are probability sampling and non-probability sampling (Creswell, 2012; Fraenkel et al., 2015). The probability sampling approach used when they are selecting persons from a particular population who are considered to be representative of this population. This is a strong technique in quantitative research because the researcher can indicate that the selected sample is representative of the population, and thus, the findings can be generalised to the population. According to Creswell (2012), there are 3 types of probability sampling techniques; namely multi-stage cluster sampling, simple random sampling, and stratified sampling.

On the other hand, the non-probability sampling technique allows the researcher to select individuals who are suitable, available, and who can demonstrate the characteristics required by the researcher in this study. Non-probability sampling follows 2 different approaches, which are snowball sampling and convenience sampling approach (Creswell, 2012; Fraenkel et al., 2015).

For this quantitative study, the researcher used the stratified sampling technique under probability sampling. Researchers conducting stratified sampling will first categorise the study population into sub-groups based on a particular characteristic. After that, they can perform simple random sampling within each subgroup. In this way, the researchers ensure that the sample selected contains the specific features that are required (Creswell, 2012; Fraenkel et al., 2015).

There are two different kinds of stratified sampling; namely proportionate stratified random sampling and disproportionate stratified random sampling. The

proportionate stratified random sampling is a method in which the researcher would identify different strata in a specific population before drawing a number of elements from every stratum that is consistent with the relative number in each stratum. In contrast, for the disproportionate stratified random sampling method, the sample size drawn from each specific stratum is not consistent with the relative size of that stratum (Fraenkel et al., 2015). In the current study, the researcher used the proportionate stratified random sampling technique. Figure 3.1 below presents the procedure followed by the sampling technique based on stratified random sampling.

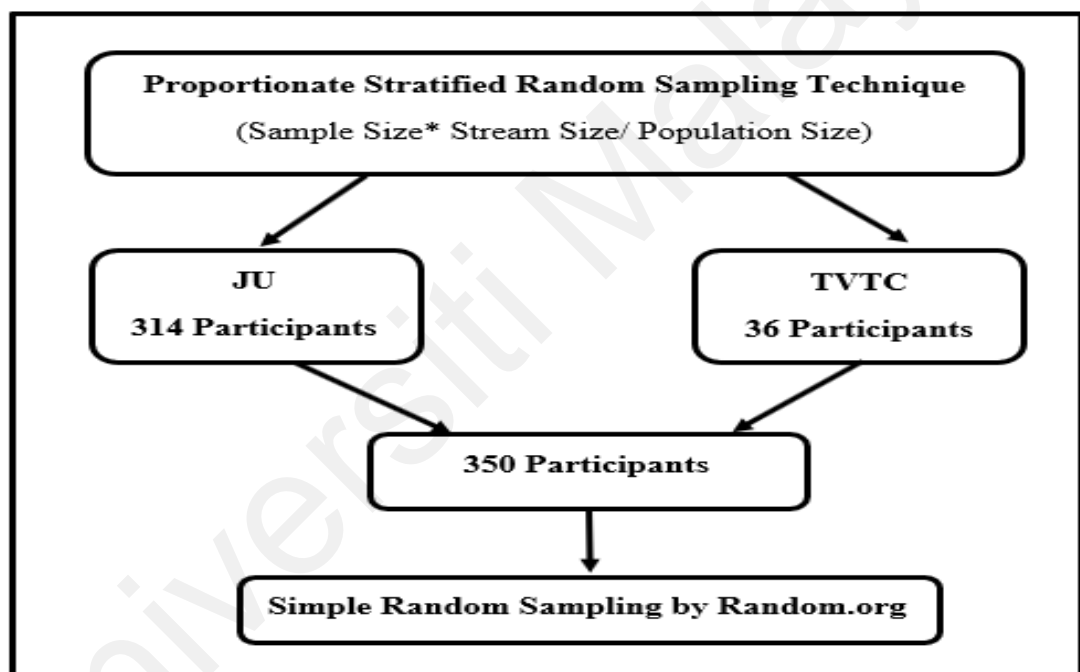


Figure 3.1. Proportionate Stratified Sampling Technique

Based on proportionate stratified sampling technique that showed in Figure 3.1 above, the researcher divided the population (higher education institutions in the Jazan Province) into 2 subgroups (strata); namely JU and TVTC. After that, the researcher selected the samples using proportionate stratified random sampling technique from each subgroup. The total population of JU and TVTC were 3431 and 397, respectively (APPENDIX B). Based on that, the total population size of faculty members in higher

education institutions in Jazan Province were 3828 faculty members. The researcher followed a specific formula in order to select the correct number of participants from each stratum (Nori, 2013). The formula for calculating a proportionate stratification was $(\text{Sample Size} * \text{Stratum Size} / \text{Population size})$ (Nori, 2013). Based on this formula, the sample size for JU should be $350 * 3431 / 3828 = 314$ while the sample size for TVTC should be $350 * 397 / 3828 = 36$. Based on this calculation, the researcher concluded that 314 faculty members from JU and 36 faculty members from TVTC recruited for this study. After that, the researcher selected the faculty members using a simple random sampling method generated electronically with Random Application (Random.org, 2018). Random sampling technique gives each member of the population a fair chance to be selected in the study.

3.4 Research Instruments

The study instrument that applied for quantitative data collection in this study was a questionnaire. The questionnaire used in this study was a combination of several instruments (Carroll et al., 2012; Northouse, 2016). Combining several instruments is a useful strategy that can minimise the limitations of each instrument while capitalising on the strengths of every instrument (Carroll et al., 2012; Northouse, 2016). This questionnaire divided into 4 main sections, namely, personal information, leadership competencies, organisational culture, and students' learning outcomes. All these sections were adapted and adopted from instruments used in previous studies.

The first section consisted of personal and demographic information of the participants. The second section focused on leadership competencies, which was developed to measure the level of competencies of academic leaders based on their personal and required skills (behaviours). Carless et al. (2000) pointed out that

leadership competencies can be measured using the Multifactor Leadership Questionnaire (MLQ) that was developed by Bass (1985) and subsequently redeveloped by Bass & Avolio (1994, 2000, 2004) to increase the reliability and usability of this questionnaire. The MLQ focused on measuring 2 behaviours of leadership: transformational and transactional leadership (Carless et al., 2000; Northouse, 2016). It is a validated instrument to measure the sufficient skills and behaviours of leadership (Northouse, 2016).

Based on the discussion above, the second section of the questionnaire focused on leadership competencies that cover personal skills and required skills of leaders (Carless et al., 2000; Clark, 2016; Northouse, 2016). The personal skill subsection included 13 items adopted from several instruments including the Skill Inventory (Northouse, 2016), the Authentic Leadership Questionnaire (ALQ) (Walumbwa et al., 2008), and the Leadership Trait Questionnaire (LTQ) (Northouse, 2016). The required skill subsection covered 16 items adopted from the MLQ developed by Bass & Avolio (1995, 2000, 2004). Accordingly, this section of the questionnaire developed by adopting several items from different questionnaires about leadership skills and behaviours that measure leadership competencies.

In the third section, in order to determine the type of organisational culture that is being practised currently in selected Saudi higher education institutions, the researcher adapted OCAI from Cameron and Quinn (2011). The OCAI was incorporated into the questionnaire to measure the type of organisational culture within the higher education institutions. This instrument is highly reliable, based on previous studies (Alshibani, &Alatwi, 2011; Cameron & Quinn, 2011; Vasyakin et al., 2016). Berkemeyer et al. (2016) also pointed out that the OCAI is a reliable instrument that used to measure the culture within the educational environment. It has been used in

several studies and tested in different countries (Vasyakin et al., 2016). It measures the type of organisational culture from six various aspects of organisational culture, namely, Dominant Characteristics, Organisational Leadership, Management of Employee, Organisation Glue, Strategic Emphasis, and Criteria of Success.

This study applied a quantitative research method. Hence, the use of questionnaire as an instrument to measure the dimensions of organisational culture within an organisation is highly suitable (Alshibani, &Alatwi, 2011; Cameron & Quinn, 2011; Delobbe et al., 2007). Researchers can derive various benefits by using a questionnaire to measure the organisation culture (Delobbe et al., 2007). They can generalise the results, study the correlation between organisational culture and other variables, and also compare the cultures in different organisations (Delobbe et al., 2007).

Alshibani and Alatwi (2011) stated that numerous published studies have indicated that quantitative research is more widely used to measure the organisational culture compared to qualitative researches. Therefore, the most suitable approach for measuring the culture within an organisation in our study would be the application of the quantitative methodology and the use of questionnaire as the study instrument. The OCAI is widely using in research conducted in the higher education sector, and its validity and reliability have proven in several countries and educational sectors. Mozaffari (2008) also pointed out that the OCAI is a reliable and valid measure of organisational culture.

The OCAI has been used in Arab and Muslim countries before (Alshibani, &Alatwi, 2011; Cameron & Quinn, 2011). In Iraq, it was used by Alshibani and Alatwi (2011) to identify the type of organisational culture in the Karbala University. The

sample population was the faculty members at the university who helped to identify the type of organisational culture that practised at the time of the study. They used the OCAI to clarify the culture in the organisation and reported on how academic leaders can utilise the findings of the study to make a difference towards achieving the university goals. Thus, the OCAI is a valid instrument that can also be used in the universities in Arab and Muslim countries. Moreover, academic leaders in these universities can take benefits of this instrument to change the institution for the best (Alshibani & Alatwi, 2011). This instrument has not been utilised in the Kingdom of Saudi Arabia before (Cameron & Quinn, 2011; Saudi Digital Library, 2018) as this country not shown in the list of the countries that have used the OCAI (2011). Hence, to the best of the researcher's knowledge, this study will be unique in term of applying the OCAI to measure the organisational culture in Saudi higher education institutions.

The last section of the questionnaire aims to measure students' learning outcomes in higher education institutions. It adapted from the Classification Scheme of Learning Outcomes developed by Kraiger et al. (1993), the fourth standard (Teaching and learning) of the Saudi National Commission of Academic Accreditation and Assessment (NCAAA) (2018), and Astin's theory of students' involvement (1984). The researcher adopted the Classification Scheme of Learning Outcomes by Kraiger et al. (1993) because there is no other model that can measure the individuals' learning outcomes and combine the 3 important outcomes (knowledge, skills, and attitude of an individual). Hence, the model by Kraiger is suitable for us to measure the learning outcomes of the students in order to achieve the purpose of the study (Kraiger et al., 1993).

Furthermore, the outcomes in terms of students' academic performance were measured using items adapted from the fourth standard (Teaching and learning) of the

NCAAA (2018) and Astin's theory of students' involvement. The researcher adopted items from the fourth standard of the Standards Accreditation of Higher Education Institutions (Saudi Ministry of Education, 2018; NCAAA, 2018). This standard known as teaching and learning is focused on students learning outcomes in higher education. Measuring academic performance is one of the aims of this standard. Usually, the nature of assessing the quality of Saudi higher education in terms of teaching and learning is focused on programme reviews (Saudi Ministry of Education, 2018; NCAAA, 2018). The reviews of the programme must be conducted by experienced individuals from related industries and professions, and experienced faculty members from other institutions. Besides, the fourth standard reviews the opinions about the programmes and these reviews were derived from students and graduates through surveys and interviews. Also, this was obtained from the discussions with faculty members and other stakeholders (Saudi Ministry of Education, 2018; NCAAA, 2018). Accordingly, the items belonging to the academic performance outcomes in this study were adopted from the fourth standard of teaching and learning and focused on the opinions of faculty members of this outcome. It was also supported by Astin's theory of students' involvement in higher education in terms of the involvement associated with academic performance and learning outcomes in higher education.

Apparently, measuring the outcomes of academic performance of students in the current study did not focus on the GPA. It only focused on measuring these outcomes based on the opinions of faculty members regarding specific items formulated in the fourth standard of teaching and learning which was supported by Astin theory (1986). The researcher in the current study did not focus on the GPA of students, because some previous studies indicated that measuring the academic performance in the educational institutions using GPA is problematic (Alnawasreh et

al., 2019; York et al., 2015). These studies indicated that GPA is not an accurate measure of learning, its not only unreliable, but also varies within and between universities, and illustrate a limited aspect of academic performance.

Therefore, academic performance measured in the current study is based on a set of subjective tools such as subjective statements as suggested by Alnawasreh et al. (2019). Besides that and according to the guidelines and explanatory note on the standards of the accreditations of higher education institutions, the evidence regarding the learning and teaching quality can be gained from the evaluations that was conducted by students, graduates, employers of the programme's quality, relationship of students with faculty members, and statistics on the qualifications of faculty members.

In short, this adapted questionnaire developed by combining several instruments from previous studies that are related to this study. The results generated from this questionnaire provided a clear vision about the phenomena understudy in the selected the higher education institutions in the Jazan Province.

The questionnaire divided into 4 main sections under categories A, B, C, and D (APPENDIX E). Section A included the general demographic information of the participants such as gender, age, qualification, years of work experience, type of institutes, and their fields. Section B focused on the measurement of the level of leadership competencies of academic leaders, and it divided to two subsections; namely B1 (Personal Skills) which consisted of 13 items, and B2 (Required Skills) which consists of 16 items. Therefore, there were a total of 29 items in this section. Section C captured the type of organisational culture, which is practised currently in the higher education institutions in the Jazan province. This section comprised 6

subsections (dimensions), which are C1 (Dominant Characteristics), C2 (Organisational Leadership), C3 (Management of Employees), C4 (Organisational Glue), C5 (Strategic Emphases), and C6 (Criteria of Success). Each of these dimensions contained 4 main items that represent different types of culture; namely Clan Culture, Adhocracy Culture, Market Culture, and Hierarchy Culture.

Cameron and Quinn (2011) pointed out that the OCAI can be utilised by dividing 100 points between each dimension of the OCAI by giving a higher number to the items that are important to the organisation at present moments. The total number of each dimension should be equal to 100 points. The respondents can use the 100-point method to identify the culture in their organisation. However, they can also rate each item in the OCAI using a 1 to 5 or 1 to 7 Likert Scale (Cameron, & Quinn, 2011). Several types of research used both methods of rating (Cameron, & Quinn, 2011; Quinn, & Spreitzer, 1991; Yeung et al., 1991), studies that used the 100-point method, and other studies which used 5-point or 7-point Likert Scale (Cameron, & Quinn, 2011; Quinn, & Spreitzer, 1991; Yeung et al., 1991). In other words, the researchers can utilise any method of rating based on the nature of research. This situation indicates a degree of flexibility in the assessment and statistical technique that can be used by researchers in presenting the nature of their research or research questions.

Additionally, Chua (2016) stated that each item in the questionnaire should be uni-dimensional. Using the word '*and*' can lead to confusion on the actual meaning of each item. Hence, any two- or three- dimensional items in the OCAI must be separated to become uni-dimensional items so that each item contains only one concept. This reduces the confusion so that the questionnaire was more precise for the respondents. As a result, the total number of items in this section were 71 items.

In the last section, section D, that focused on students' learning outcomes. This section contained 4 subsections, which were D1 (Cognitive outcomes/Knowledge) that covered 7 items, D2 (Skill-based outcomes) that included 10 items, D3 (Affective outcomes/ attitude) that comprised 7 items, and D4 (Students' Academic Performance) that covered 7 items, giving a total of 31 items.

As a whole, the total number of items in the questionnaire was 131 items. The questionnaire utilises a 5-point Likert scale to examine the responses of the participants (Cameron & Quinn, 2011; Chua, 2016; Northouse, 2016; Shahmandi et al., 2012). The 5-point Likert scale refers to 1=SD (Strongly Disagree), 2 =D (Disagree), 3=NA (Neutral), 4=A (Agree), and 5=SA (Strongly Agree). According to Chua (2016), Likert scale with 3,5,7, or 9 choices has a middle-level choice that represents the idea of "not sure" and this allows the participants to be neutral in their responses. In this way, the participants will not force to choose whether they agree or not agree with a specific item. This method of using a middle choice to represent neutrality will reduce the measurement error in the study (Chua, 2016).

3.5 Pilot Study

A pilot study plays a significant role in achieving success in the research study (Chua, 2016). It is considered as a small-scale study or mini research that is conducted by the researcher before carrying out the actual research (Chua, 2016). A pilot study helps the researcher to identify the reliability and validity of research instruments. It also helps the researcher to determine the level of suitability of the actual research that will conduct later. Additionally, the pilot study can warn the researcher about the potential problems that may occur during the actual data collection (Creswell, 2018; Chua, 2016).

The pilot study can provide several advantages for the researcher, especially in evaluating the suitability of several components in the actual research, such as research questions, research design, research framework, sampling technique, sample size, research instruments, cost, the effectiveness of data analysis technique, and research findings (Chua, 2016). Moreover, researchers often use the pilot study to determine the reliability of the research instrument by calculating the reliability coefficient value, such as Cronbach's alpha value of the items. The instrument is considered reliable if the reliability coefficient value is high.

The pilot study also uses to determine the validity and reliability of a translated questionnaire from another language (Chua, 2016). In this study, the researcher applied the English version of the questionnaire and translated it into the Arabic language as the Arabic language is the mother language of the study population. Based on that, the pilot study plays a vital role in the current study.

According to Chua (2016) and Creswell (2018), as the pilot study only involves a small number of respondents (usually no more 30 participants), some unexpected problems may still occur in the actual research. Hence, the researcher must be prepared for any significant problems that may arise during the actual study. Creswell (2018) pointed out that the sample size of the study should be larger to avoid any problem that may occur in the research or to prevent any potential error. Pallant (2016) also stated that larger sample size is better. One of the requirements to ensure data suitability in conducting factor analysis is a sufficient sample size of no less than 150 cases (Pallant, 2016). Hence, the researcher included no less than 150 participants in the pilot study and not only 30 participants, as stated earlier by Chua (2016), to prevent any potential error in analysis.

For the pilot study, the questionnaire distributed among faculty members working in any of the higher education institutions in the Kingdom of Saudi Arabia. Although the sample of the actual study was limited to the institutions of higher education in the Jazan Province, the pilot study included participants from different Saudi higher education institutions. Chua (2016) pointed out that the characteristics of the participants in the pilot study must be similar to the participants of the actual research in terms of their education, background, age, conditions of work, and socioeconomic level. As long as the participants from the higher education institutions in the Kingdom of Saudi Arabia share the same characteristics and have the same criteria and standards (Saudi Ministry of Education, 2018), there is no problem of distributing the questionnaire to faculty members who are working at different institutions of higher education in the Kingdom of Saudi Arabia.

To conclude, for the pilot study, a questionnaire containing 131 items distributed to faculty members working in Saudi higher education institutions between June and July 2018. The researcher received a total of 150 clear responses. Preliminary test on the research instruments performed using the returned responses to measure the reliability and validity of the questionnaire. The results of this preliminary test explained in more details in the following sections.

3.5.1 Demographic Information of the Respondents

The researcher conducted the pilot test based on information provided by the respondents. This section outlined the demographic results of the respondents, including their gender, age, institutions that they are now working in, field of specialisation, qualifications, and years of experience.

Most of the respondents were female (63.3%), and the average age of the respondents was between 31-40 years (48.7%). The majority of the respondents were faculty members who worked at universities (86.7%), and from the field of Social Science (41.3%). Moreover, most of the respondents hold a master degree (52.7%). The faculty members whose working experience was 5 years and above made up the most respondents in the study (61.3%).

3.5.2 Reliability Test on the Research Instruments of the Pilot Test

The following section included in-depth information on the results of the reliability and validity test of the pilot study. Reliability refers to the ability of a research instrument to measure an item consistently (Tavakol & Dennick, 2011). In this pilot study, the researcher used Cronbach's Alpha coefficient to test the reliability of the research instrument and to describe the internal consistency of the questionnaire.

According to Pallant (2016), Cronbach's alpha is considered one of the most commonly used indicators for testing the internal consistency of a scale. The acceptable value of Cronbach's Alpha varies from one research to another. The acceptable range reported in various studies included 0.70 to 0.95 (Tavakol & Dennick, 2011), 0.80 to 0.90 (Kubiszyn & Borich, 2000), and 0.70 to 0.99 (Mohamad, Sulaiman, Sern, & Salleh, 2015). In contrast, the acceptable value for social science research is .60 and above (Ghazali, 2008).

If the value of alpha is low, it means there is a weak correlation between items or the number of items is small (Chua, 2016; Pallant, 2016). In this case, the items should be deleted or revised. For instance, if the value of alpha is less than 0.65, then the item should be deleted due to the low-reliability value (Chua, 2016). In contrast,

the high value of alpha (>0.95) may refer to some redundant items which test the same question but in a different manner (Tavakol & Dennick, 2011).

Based on the above discussion, the researcher measured the reliability of the study instrument with Cronbach's alpha test for each item in the questionnaire and also for the 3 main variables in the study using SPSS software programme (v.23). Table 3.3 below shows the values of Cronbach's alpha for each factor in this study.

Table 3.3

Reliability Statistics of the Research Instruments

Variables		Factors	Number of Items	Value of Cronbach's Alpha
Leadership	1	Personal Skills	13	.955
Competencies	2	Required Skills	16	.930
Organisational	3	Dominant Characteristics	12	.945
Culture	4	Organisational Leadership	12	.937
	5	Management of Employees	11	.958
	6	Organisation Glue	13	.937
	7	Strategic Emphasis	10	.956
	8	Criteria of Success	13	.958
Students	9	Cognitive Outcomes	7	.951
Learning	10	Skill-based Outcomes	10	.941
Outcomes	11	Affective Outcomes	7	.958
	12	Academic Performance	7	.904
Total Number of Items			131	

Table 3.3 above indicated the 3 main variables in the study. The first variable is the leadership competencies. This variable has 2 factors, with a total of 29 items. The first factor that is related to leadership competencies is Personal Skills. This factor contains 13 items and recorded an acceptable Cronbach's alpha value of 0.955. The second factor is Required Skills, that includes 16 items with an acceptable Cronbach's alpha value of 0.930. The researcher accepted these values based on the study of Mohamad et al. (2015) and Tavakol and Dennick (2011).

As for the second variable of organisational culture, it contains 6 different factors, and each factor has a different number of items. The first factor of organisational culture is Dominant Characteristics that has 12 items with an acceptable Cronbach's alpha value of 0.945. The second factor is Organisational Leadership, also has 12 items and recorded an acceptable Cronbach's alpha value of 0.937. The third factor is Management of Employees, and it contains 11 items with an acceptable Cronbach's alpha value of 0.958. The fourth factor is Organisation Glue with 13 items and recorded an acceptable Cronbach's alpha value of 0.937. The fifth factor is Strategic Emphases, and it involves 10 items with an acceptable Cronbach's alpha value of 0.956. For the last factor, Criteria of Success, it has 13 items with an acceptable Cronbach's alpha value of 0.958. All these Cronbach's alpha values acceptable based on the studies by Tavakol and Dennick (2011) and Mohamad et al. (2015).

The third variable of this study focused on students' learning outcomes. It has 4 different factors, which are the cognitive outcome, skill-based outcome, affective outcome, and academic performance. The first factor is the cognitive outcome that has 7 items with an acceptable Cronbach's alpha value of 0.951. The second factor is a Skill-Based outcome. This factor contains 10 items with an acceptable Cronbach's

alpha value of 0.941. The third factor is the Affective Outcome. This factor comprises 7 items with an acceptable Cronbach's alpha value of 0.958. The fourth factor is the Academic Performance. This factor comprises 7 items with an acceptable Cronbach's alpha value of 0.904. Clearly, the Cronbach's alpha values for all the factors related to this variable are within the acceptable range (Mohamad et al., 2015; Tavakol & Dennick, 2011).

To sum up, after conducting the reliability analysis, the researcher found that the Cronbach's alpha values for all the factors were within the acceptable range between 0.70 and 0.95 as proposed by Mohamad et al. (2015) and Tavakol and Dennick (2011). Therefore, the researcher did not delete any items from the questionnaire. The final total number of items remains as 131 items, as shown in Table 3.8, as all the 131 items were reliable according to the Cronbach's alpha values.

3.5.3 The Validity Test of the Research Instruments for the Pilot Test

The researcher also enlisted a number of experts who are knowledgeable about the issue being studied to carry out validity testing on the research instrument. The researcher sent the questionnaire to 7 experts. The first 2 experts were the researcher's supervisors, whereas another 2 were experts in languages because the instrument translated from the English language into the Arabic language. The remaining 3 experts were specialists in the field of higher education leadership and management. They tested the validity of the instrument based on specific criteria, such as whether the items in each variable can capture and cover the study topic adequately, the importance of each item under a particular variable, whether the translation was correct, whether the items retain the same meaning or not, and whether the language used in the questionnaire was accurate. The experts validated the research instrument based on certain standards and their comments used to improve the questionnaire.

APPENDIX F shows the comments and notes from the different experts who validated the research instrument.

Besides, the researcher also applied factor analysis in determining the validity of the 131 items in the questionnaire. Factor analysis is considered as a technique for data reduction. It uses specific methods to reduce a large group of variables into a smaller group of factors (Pallant, 2016). Pallant (2016) argued that factor analysis designed to make a smaller number of linear combinations of the main variables in a way that holds most of the variability in the pattern of relationships. Similarly, Tabachnick and Field (2007) stressed that factor analysis is appropriate when a researcher is interested in a theoretical solution (Pallant, 2016).

Factor analysis has 2 main approaches in the literature, which are exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) (Pallant, 2016). Researchers in the early stage of research can utilise EFA to gather information regarding the interrelationship between a set of variables. Besides, researchers can subsequently use CFA to confirm specific theories or hypotheses regarding the underlying structure of the group of variables (Pallant, 2016). The researcher in the pilot test applied EFA at the early stage to gather information about the relationship between variables and to identify the suitability of factor analysis for each variable. In the actual research, the researcher performed the CFA using structural equation modelling (PLS-SEM).

Based on this, the researcher utilised the EFA in this study and followed on later with CFA. For EFA, the researcher carried out 3 steps namely: (1) evaluation of the appropriateness of the data for factor analysis, (2) factor extraction, and (3) factor rotation and interpretation (Pallant, 2016). The tests related to the first step are Kaiser

Meyer-Olkin (KMO) and Bartlett's Test of Sphericity. The second step involved Kaiser's criterion, scree test, and parallel analysis. The last step utilised the Oblimin rotation (Pattern Matrix and Structure Matrix). EFA also included information regarding the communalities (APPENDIX G).

The first step of EFA is to assess the appropriateness of the data for factor analysis. It involves Kaiser Meyer-Olkin (KMO) and Bartlett's Test of Sphericity. These are the 2 main statistical measures identified by SPSS that can help to assess data factorability (Pallant 2016). KMO measures the adequacy of sampling, and its index ranges from 0 to 1 (Kaiser, 1974). The minimum value of KMO for good factor analysis is 0.6. In other words, the acceptable value of KMO must be 0.6 and above. As for Bartlett's Test of Sphericity, this measure must be significant with a p-value of < 0.05 (Bartlett, 1954; Pallant, 2016). This means that the factor analysis is considered appropriate if Bartlett's Test of Sphericity is significant at a p-value of 0.05 or less (Pallant, 2016; Tabachnick & Field, 2007). Based on these views, the researcher conducted the first step of the factor analysis (EFA) and presented the results below in Tables 3.4, 3.5, 3.6.

Table 3.4

KMO and Bartlett's Test for the Variable of Leadership Competencies

Kaiser Meyer-Olkin Measure of Sampling Adequacy		.938
Approximate Chi-Square		4119.279
Bartlett's Test of Sphericity	Degree of Freedom	406
	Significance	.000*

* $p < 0.05$

Table 3.4 above shows the KMO and Bartlett's Test for the independent variable, which is leadership competencies. From the results in the table, the KMO was 0.938. Thus, it is considered as an acceptable value because it was above 0.6 as suggested by Pallant (2016) and Kaiser (1974). The Bartlett's Test of Sphericity was also significant ($p=0.000$) as the p-value was smaller than 0.05 as suggested by Pallant (2016) and Bartlett's (1954). Hence, the factor analysis for this variable is considered appropriate.

Table 3.5

KMO and Bartlett's Test for the Variable of Organisational Culture

Kaiser Meyer-Olkin Measure of Sampling Adequacy		.943
Approximate Chi-Square		12535.528
Bartlett's Test of Sphericity	Degree of Freedom	2485
	Significance	.000*

* $p < 0.05$

Table 3.5 above indicates the KMO and Bartlett's Test for the mediating variable, which is organisational culture. The value of KMO was 0.943, which is considered acceptable as the value is above 0.6 (Kaiser, 1974; Pallant, 2016). The Bartlett's Test of Sphericity of this variable was significant ($p=0.000$) and smaller than 0.05 (Bartlett, 1954; Pallant, 2016). Therefore, the factor analysis for this variable is considered appropriate.

Table 3.6

KMO and Bartlett's Test for the Variable of Student Learning Outcomes

Kaiser Meyer-Olkin Measure of Sampling Adequacy		.947
Approximate Chi-Square		5138.125
Bartlett's Test of Sphericity	Degree of Freedom	465
Significance		.000*

* $p < 0.05$

Table 3.6 above shows that KMO and Bartlett's Test for the dependent variable, which is students' learning outcomes. The value of the KMO was 0.947, which is considered acceptable as the value was above 0.6 (Kaiser, 1974; Pallant, 2016). The Bartlett's Test of Sphericity of this variable was also significant ($p=0.000$) (Bartlett, 1954; Pallant, 2016). Thus, the factor analysis for this variable is considered appropriate.

To conclude, the KMO for the 3 variables were all above 0.6, and thus were considered to be in the acceptable range (Pallant, 2016). The Bartlett's Test for the 3 variables was also statistically significant at $p < 0.05$ (Pallant, 2016). Thus, the factor analysis for all the variables is considered suitable.

The second step of EFA is factor extraction. This step would involve the Kaiser's criterion (or the eigenvalue), scree test, and parallel analysis. For the variable on leadership competencies, 4 eigenvalues were greater than 1, accounting for 72.351% of the total variance. The scree plot and parallel analysis for this variable were also supportive of a two-factor solution. Again, the scree plot and parallel analysis appeared to support the two-factor solution as they were able to explain 64.957% of the total variance. For organisational culture, there were 9 eigenvalues

greater than one, accounting for 76.493% of the total variance. The scree plot and parallel analysis for this variable seemed to support a six-factor solution as they explained 71.571% of the total variance. Besides, for the variable on students' learning outcomes, there were 4 eigenvalues greater than one that accounted for 75.093% of the total variance. The scree plot and parallel analysis for this variable were able to support a four-factor solution, explaining 75.093% of the total variance. APPENDIX G shows the tables of the Total Variance Explained (eigenvalues) and scree plot.

In the last step, the Oblimin rotation utilised. The Oblimin rotation shows 2 tables of loading; namely Pattern Matrix and Structure Matrix (Pallant, 2016). All the factors of the 3 variables extracted using Oblimin rotation. Pattern Matrix provided information regarding the factor loading of each variable. Structure Matrix presented the information regarding the correlation between the factors and variables. APPENDIX G shows the tables resulting from the Oblimin test.

The next section reported the findings from the Communalities. The Communalities refer to the information that the researcher can get from each item in terms of how much is the variance in each item (Pallant, 2016). According to Pallant (2016), a low value of less than 0.3 of any item implies that it is an unfit item to be put together with other items in its factor. Hence, any item with a low value must be deleted. The removal of items with a low value of communality will lead to an increase in the total variance explained. The communality values of all the 131 items in the questionnaire used in the current pilot study were above 0.5 thus indicating acceptable values with good results. APPENDIX G shows the table of Communalities for each item in the pilot study. To sum up, the tests related to EFA showed that the factor analysis for all variables is suitable. Also, CFA conducted in the actual study to confirm the model that emerged from EFA. Finally, this current instrument is

considered a valid and reliable instrument that can be utilised by the researcher to conduct the actual study.

3.6 Data Collection Process

This section presents the data collection process for this study. First of all, the researcher collected the consent letter from the Faculty of Education of University of Malaya (APPENDIX H). This consent letter sent to the 2 higher education institutions at Jazan Province; namely JU and TVTC. JU has 25 colleges with 111 departments and a total of 3431 faculty members while the TVTC comprises of 5 colleges and 3 institutes with 397 faculty members. After obtaining permission to conduct the study in these institutions, the researcher distributed the questionnaire. APPENDIX H shows the permission letter from both institutes.

The study sample included the faculty members who worked in JU and TVTC. The researcher distributed the questionnaire to the faculty members in both institutes. The researcher distributed the questionnaire personally on the site for the participants to answer. This enabled the researcher to provide clarification where necessary and that the questionnaire completed on time. The data collection took 3 months from November 2018 to January 2019. After completing data collection, the researcher started the process of data cleaning and data analysis.

3.7 Data Analysis Procedure

This section included a brief explanation of how the data in this quantitative study analysed. Chapter 4 included more details regarding data analysis. To analyse the data and answer the research questions and hypotheses, the researcher used SPSS (V. 23) for the analysis of descriptive statistics and inferential statistics, respectively. Besides,

the researcher applied the PLS-SEM for hypotheses testing and analysis of the mediating variable.

Besides, SPSS was used for data screening and analysis of descriptive statistics to answer the first 3 research questions. It included the testing of mean, standard deviation, and frequency (Pallant, 2016). The PLS-SEM used in the identification of the causal path and the mutual strength of several variables (Hair, Hult, Ringle, & Sarstedt, 2017). The PLS-SEM also performed to analyse the direct and indirect effect, including the specific indirect effects and the total effect, apart from analysing the mediation model (Hair et al., 2017). Based on that, the PLS-SEM used in the current study to answer the rest of the research questions that focused on examining the effect between variables, including research question 4,5, and 6. Accordingly, the PLS-SEM is the most suitable statistical technique for data analysis for the current study that focused on examining the direct and indirect effect between variables and analysing the mediation effect between variables. On the other word, the PLS-SEM used in this study for hypotheses testing and analysing of the mediating effect.

The SEM is more appropriate for this study because it well-known by three essential features, namely; the assessment of many dependence relationships, illustrate unobserved concepts in these dependence relationships and correct the errors of measurements, and finally define the whole model that explain the entire relationships between constructs and variables (Hair & Black 2012; Kumar & Upadhaya, 2017). In addition, the most important concept in SEM is doing the mediation analysis. The mediation analysis means that the defining relationship between the independent variable and dependent variable can be described clearly in the presence of the third variable, which called mediator (Kumar & Upadhaya, 2017). Based on the discussion above, the most suitable technique for the current study is the SEM. The present study

focused on identifying the effect and relationship between the independent variable (leadership competencies) and dependents variable (students learning outcomes) through the presence of mediator (organisational culture). Researchers, through SEM can explain the entire relationships between variables by defining a model (Kumar & Upadhaya, 2017).

Besides, while building a model by SEM, the researchers should make consideration of the assumptions and concepts of SEM in order to test the proposed hypotheses (Kumar & Upadhaya, 2017). The assumptions of SEM include the normality of data, missing data, measurement and sampling errors, and model fit indexes. The concepts of SEM include the causality, assessment of measurement model and assessment of structural model (Kumar & Upadhaya, 2017). The following Table 3.7 and Table 3.8 present further details of the assumptions and concepts of SEM that used in the current study.

Table 3.7

The Assumptions of SEM

Assumptions	Measures/ Accepted Value	References
1. Normality (Skewness & Kurtosis)	Between -2 and +2	George and Mallery (2010)
2. Missing data	The treatment of missing data by: The missing completely at random (MCAR) approach. Or data is missing at random (MAR) approach.	Kumar and Upadhaya (2017)/ Muthen et al. (1987)

Table 3.7 (continued)

Assumptions	Measures/ Accepted Value	References
3. Measurement and sampling Errors (The measurement Errors initiated by the biased tool, collection techniques of information, and part of respondents which affects the model fit)	<ul style="list-style-type: none"> - Maximum likelihood (ML) and Ordinary Least Squares (OLS) techniques (OLS is better technique compare to ML because OLS makes no distribution assumption). - Pre-tests also can be used to handle the errors of measurement and sampling. 	Kumar and Upadhaya (2017)/ MacCallum, Tucker, and Briggs (2001)
4. Model Fit Indexes	Chi-Square (X^2) Ratio to Chi-Square should ≤ 2	Kumar and Upadhaya (2017)
	Normed Fit Index (NFI) $\geq .95$	Kumar and Upadhaya (2017)
	NFI > 0.90	(Henseler et al. (2014)
	Standardised Root Mean Square Residuals (SRMR) $\leq .08$	Kumar and Upadhaya (2017)
	Exact fit criteria d_ULS and d_G	(Henseler et al. (2014)
	RMS_theta	(Henseler et al. (2014)

After explaining the assumptions of the SEM, the following section included Table 3.8, which indicated more details regarding the concepts of SEM.

Table 3.8

The Concept of SEM

	Concepts	Measures/Accepted Value	References
Measurement Model	1. Causality	Explores the cause and effect association between exogenous and endogenous via testing the direct and indirect relation	Kumar and Upadhaya (2017)
	2. Measurement model and structural model	<p>The Measurement model provides empirical evidence via numbers of measurements.</p> <hr/> <p>The structural model offers a framework which supports the hypothesis.</p>	Kumar and Upadhaya (2017)
	3. Validity and Reliability	<p>Validity includes convergent and discriminant validity</p> <hr/> <p>Reliability includes the Composite/ construct reliability</p>	Hair et al. (2017) / Kumar and Upadhaya (2017)
	4. Convergent Validity (CV) (variable loadings on the construct)	<p>should be $\geq .70$ for every observable variable</p> <hr/> <p>or the Average Variance Extracted (AVE) $\geq .50$</p>	Kumar and Upadhaya (2017) Hair et al. (2017)

Table 3.8 (continued)

	Concepts	Measures/Accepted Value	References
Measurement Model	5. Discriminant Validity (DV)	If the covariance between the two constructs is high ($\geq .60$), the constructs are reflecting similarities, and they are not different. One can go for second-order modelling by combining the constructs. This will affect the degree of freedom of the model.	Hair et al. (2017) / Kumar and Upadhaya (2017)
		Cross-Loading (The outer loadings of the construct should be higher than any of its cross-loading compared to other constructs)	Hair et al. (2017)
		Fornell-Larcker Criterion (The square root of the AVE values of every construct must be higher than its highest correlation with any other construct)	Henseler, Ringle, and Sarstedt (2015)
		Heterotrait-monotrait ratio (HTMT) $\geq .85$	Kline (2016)
		HTMT $\geq .90$	Teo, Srivastava, and Jiang (2008)
		HTMT smaller than 1	Alarcón, Sánchez, and De Olavide (2015)

Table 3.8 (continued)

	Concepts	Measures/Accepted Value	References
	6. Composite/Construct Reliability (CR)	($\geq .70$)	Hair et al. (2017) / Kumar and Upadhaya (2017)
Structural Model	7. Mediation, moderation and controls	This concept is vital to create a direct and indirect relationship between independent (IV) and dependent variables (DV)	Kumar and Upadhaya (2017)
		The mediation refers to the relationship between IV and DV is best to describe in the presence of the 3 rd construct (mediator).	
		Three types of mediation : full, partial and bifurcated mediation between IV&DV	Kumar and Upadhaya (2017)
		Moderator (increase or decrease the degree of relationship between IV&DV)	
	8. Direct and Indirect Effects	These affect with and without mediator show the level of mediation. The type of mediation assessed with direct and indirect effects test the hypothesis proposed. A minimum sample of 500 is required to check the indirect effects	Kumar and Upadhaya (2017)

Table 3.8 (continued)

Concepts	Measures/Accepted Value	References
8. Direct and Indirect Effects (Continued)	Value of path coefficient (β) (β) between -1 and +1 (*sig. at 95%, ** sig. at 99 %, *** sig. at 99.9 %) (close to +1 indicate a strong positive relationship between the constructs) (close to -1 refer to the strong negative relationships between the constructs) (close to 0 represent a weak relationship between the constructs /non-significant)	Hair et al. (2017) Kumar and Upadhaya (2017)

In addition to the explanation in the tables above, the following Table 3.9 included more details regarding the assessment of the structural model. The structural model assessment by PLS-SEM contains six different steps that shown in the table below with the accepted values.

Table 3.9

Procedure for Conducting the Assessment of Structural Model

Measures	Accepted Value	References
(1) structural model assessment for collinearity issues	Variance Inflation Factor (VIF) value must be below 5.	Hair et al. (2017)
(2) measures the significance and relevance of the relationship of the structural model	path coefficient β (between -1 and +1)	Hair et al. (2017)
(3) calculates the level of R^2 (Coefficient of Determination)	≥ 0.75 (substantial /Strong) ≥ 0.50 (Moderate) ≥ 0.25 (Weak)	Hair et al. (2017)/ Henseler et al. (2015)
(4) assesses the effect sizes f^2	≥ 0.26 (substantial) 0.13 (moderate) 0.02 (weak)	Cohen (1988)
(5) evaluates the predictive relevance Q^2	≥ 0.65 (substantial /Strong) 0.33 (Moderate) 0.19 (Weak)	Chin (1998)
(6) measures the q^2 effect size	≥ 0.35 (large effect) 0.15 (medium effect) 0.02 (small effect)	Cohen (1988) and Hair et al. (2017)

In short, the PLS-SEM included the assessment of the measurement model and the assessment of the structural model (Hair et al., 2017). The evaluation of the measurement model included the internal consistency (composite reliability, Cronbach's Alpha), convergent validity (average variance extracted), and discriminant validity (Cross-Loading, Fornell-Larcker Criterion, and HTMT) (Hair et al., 2017). Furthermore, the evaluation of the structural model involved the assessment for collinearity issues, VIF, path- coefficient (β) that measures the significance and relevance of the relationship of the structural model, calculation of the level of R^2 and

effect sizes f^2 , evaluation the predictive relevance Q^2 , and the q^2 effect size (Hair et al., 2017).

Besides, it used to conduct the hypotheses testing, based on path coefficients β , t-value, p-value with a significance level of 5% (0.05), 500 times of bootstrapping. The current study focused on assessing the mediation hypothesis and indirect effect between variables. Therefore, according to Hayes (2018) the bootstrapping approach was used to test the significance of the mediating hypothesis. Also, it was applied to assess the indirect effect between variables. Hence, the most suitable approach that used the current analysis was bootstrapping. Table 3.10 outlines the procedure for quantitative data analysis based on research questions and hypotheses.

Table 3.10

The Procedure for Quantitative Data Analysis

No	Research Questions	Hypotheses	Data Analysis
1	What is the level of leadership competencies of academic leaders in selected Saudi higher education institutions?		SPSS (Descriptive Statistics/ Mean /SD / Frequency table)
2	What type of organisational culture is being practised currently in selected Saudi higher education institutions?		SPSS (Descriptive Statistics/ Mean/SD/ Frequency table)
3	At what level are student learning outcomes in selected Saudi higher education institutions?		SPSS (Descriptive Statistics/ Mean/ SD/ Frequency table)

Table 3.10 (continued)

No	Research Questions	Hypotheses	Data Analysis
4	Do the leadership competencies of academic leaders have a direct and significant effect on student learning outcomes in selected Saudi higher education institutions?	<p>H₀₁: There is no direct and significant effect of leadership competencies of academic leaders on students' learning outcomes in selected Saudi higher education institutions.</p> <p>H₁: There is a direct and significant effect of leadership competencies of academic leaders on students' learning outcomes in selected Saudi higher education institutions.</p>	<p>PLS-SEM</p> <p>(Bootstrapping*)</p> <p>Path coefficients β (between +1 and -1), T-value (>1.96)/p-value (<0.05)</p>
5	Does organisational culture have a direct and significant effect on student learning outcomes in selected Saudi higher education institutions?	<p>H₀₂: There is no direct and significant effect of organisational culture on students' learning outcomes in selected Saudi higher education institutions.</p> <p>H₂: There is a direct and significant effect of organisational culture on students' learning outcomes in selected Saudi higher education institutions.</p>	<p>PLS-SEM</p> <p>(Bootstrapping*)</p> <p>Path coefficients β (between +1 and -1), T-value (>1.96)/p-value (<0.05)</p>

Table 3.10 (continued)

No	Research Questions	Hypotheses	Data Analysis
6	Is organisational culture a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and student learning outcomes in selected Saudi higher education institutions?	<p>H₀₃: Organisational culture is not a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions.</p> <p>H₃: Organisational culture is a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions.</p>	<p>PLS-SEM</p> <p>(Bootstrapping*)</p> <p>Path coefficients β (between +1 and -1), T- value (>1.96)/ p-value (<0.05)</p>

* Bootstrapping is a powerful tool used to assess specific indirect effects between variables and to test the significance of the mediating hypotheses.

3.8 Summary

This chapter explained in detail the research methodology that was adopted by the researcher. It indicated the research method used and the steps the researcher followed in selecting an appropriate design for the current study.

The main research instrument was the validated questionnaire in which its reliability was measured using Cronbach's alpha. This chapter discussed in detail the

pilot study which was conducted among 150 respondents from Saudi higher education institutions. The pilot study is aimed to test the validity and reliability of the questionnaire. The results from the pilot study showed the questionnaire was used as a reliable study instrument as all 131 items have acceptable values of Cronbach's alpha. Additionally, the factor analysis for all the variables was also suitable.

This is a quantitative study. The researcher collected data by distributing a questionnaire. This chapter also discussed the sampling method used to achieve the intended sample size from the study population. The study applied a probability sampling technique, namely the proportionate stratified random sampling technique to select the study samples from the particular population. The data was analysed using SPSS (v.23) and the PLS-SEM which examined the mediation effect and the direct and indirect effects between variables.

The next chapter is Chapter 4, which presents an in-depth description of the data analysis and the findings from the quantitative study.

CHAPTER 4

FINDINGS AND DATA ANALYSIS

4.1 Introduction

This study aimed to examine the mediating effect of organisational culture on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions. This chapter presented the questions of research, hypotheses and then explained in detail the results of data analysis. The findings from the data analysis presented in seven main sections as follows:

- Data screening covered missing values, outliers, suspicious responses, response rate, and normality test.
- Descriptive statistics included the respondents' demographic information, and the findings of the first three questions.
- Measurement model assessment.
- Structural model assessment.
- Mediation analysis.
- Hypotheses testing covered the findings of the rest of the research questions.

This chapter also presented the analysis for each of the following research questions:

1. What is the level of leadership competencies of academic leaders in selected Saudi higher education institutions?
2. What type of organisational culture is being practised currently in selected Saudi higher education institutions?

3. At what level are student learning outcomes in selected Saudi higher education institutions?
4. Do the leadership competencies of academic leaders have a direct and significant effect on student learning outcomes in selected Saudi higher education institutions?
5. Does organisational culture have a direct and significant effect on student learning outcomes in selected Saudi higher education institutions?
6. Is organisational culture a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and student learning outcomes in selected Saudi higher education institutions?

Besides, this chapter included the findings of hypotheses testing. The current study formulated three null hypotheses and three alternative hypotheses to answer research questions 4, 5, and 6. H_{01} and H_1 formulated to answer research question 4, while H_{02} and H_2 formulated to answer research question 5, and H_{03} and H_3 formulated to answer research question 6. These hypotheses formulated as follow:

H_{01} : There is no direct and significant effect of leadership competencies of academic leaders on students' learning outcomes in selected Saudi higher education institutions.

H_1 : There is a direct and significant effect of leadership competencies of academic leaders on students' learning outcomes in selected Saudi higher education institutions.

H_{02} : There is no direct and significant effect of organisational culture on students' learning outcomes in selected Saudi higher education institutions.

H_2 : There is a direct and significant effect of organisational culture on students' learning outcomes in selected Saudi higher education institutions.

H₀₃: Organisational culture is not a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions.

H₃: Organisational culture is a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions.

4.2 Overview of Data Analysis

This study conducted research using a quantitative methodology based on the correlation design technique. The data collected by distributing the questionnaire contains 131 items between faculty members who worked in higher education institutions in Jazan province, the Kingdom of Saudi Arabia. As Jazan Province has 2 different institutions of higher education, the researcher, therefore, applied the probability sampling technique and focused on the stratified sampling method. The researcher utilised the proportionate stratified random sampling technique and selected the random sample of more than (350 respondents) from both populations.

The researcher selected more than 314 respondents from Jazan University and more than 36 respondents from the Technical and Vocational Training Corporation (TVTC) as stated earlier in Chapter 3. In return, the researcher received 533 responses from the participations of both populations. One reason for collecting more than 350 responses is to avoid any problem that may accrue during data analysis (Chua, 2016; Creswell, 2018). Another reason is that this study has many indicators and constructs that need more responses in order to avoid any problem when analysing (Hair et al., 2017). After collecting the data from the targeted population, the researcher analysed the data using SPSS (v.23) and the PLS-SEM.

The researcher in this study utilised the SEM. SEM is used to explore and confirm the theory (Hair et al., 2017). There are 2 different kinds of SEM: CB-SEM, which is applied to confirm or reject theories, whereas PLS-SEM is used to explore or develop theories. Generally, the CB-SEM focused on testing theories, confirming theories or making a comparison of alternative theories. It also used when additional specification needed for error terms. It used if the structural model in the study has circular relationships. Global goodness- of- fit also required in a study that used the CB-SEM (Hair et al., 2017). However, the researchers can apply PLS-SEM instead of CB-SEM when the objective of the study predicts the key goal constructs, or if the structural model of the study is complex and has many indicators and constructs. It used if the researcher plan to use the score of latent variables in the subsequent analysis. Also, the PLS-SEM can handle both models of reflective and formative measurement (Hair et al., 2017).

According to Hair et al. (2017), the researchers have to consider both types and apply the techniques of SEM that are deemed suitable for their objectives, characteristics of data, and model setup. Therefore, the PLS-SEM is suitable for the current objectives, characteristics of data, and model setup. Besides, the present study utilised the PLS-SEM instead of CB-SEM due to a number of reasons. First, the objective of the study predicts the key goal constructs. Second, the structural model of the study is complex and has many indicators and constructs. Third, the researcher plans to use the score of latent variables in the subsequent analysis. Fourth, the current model is a reflective model; therefore, PLS-SEM applied because it can handle both models of reflective and formative measurement. Clearly, PLS-SEM is more appropriate for the current study.

Through PLS-SEM, the researcher conducted data analysis by applying the measurement model assessment and structural model assessment. Both assessments have specific tests and measurements. The researcher followed particular guidelines to decide which mode of measurement model should be used depending on whether the mode is reflective or formative (Hair et al., 2017). Reflective and formative measurement models have particular tests and measurements. Reflective measure refers to all the items of the indicators that are caused by the same constructs. The indicators that are related to a specific construct have to be correlated with each other. On the other hand, the formative measurement model refers to the indicators which have caused the construct. Generally, the current study follows the reflective measurement model (Hair et al., 2017).

The evaluation of the reflective measurement model comprises: (1) internal consistency that covers composite reliability and Cronbach 's Alpha, (2) convergent validity that includes the outer loading, and average variance extracted (AVE), and (3) discriminant validity that covers Cross-Loading, Fornell-Larcker Criterion, and Heterotrait-monotrait ratio (HTMT) (Hair et al., 2017). Furthermore, the evaluation of the structural model involves the assessment for collinearity issues, measures the significance and relevance of the relationship of the structural model, and calculates the level of R^2 . It also assesses the effect sizes f^2 , evaluates the predictive relevance Q^2 , and the q^2 effect size (Hair et al., 2017). More details regarding the assumptions and concepts of the evaluation of measurement and structural model in SEM was explained earlier in Chapter 3. Besides, the following sections included more details regarding data analysis. First, it included the data screening, followed by descriptive statistics, then later the evaluation of the measurement and structural model and mediation analysis via PLS-SEM. Finally, hypotheses testing.

4.3 Data Screening

Some errors during data entering can completely mess up the analysis of data (Pallant, 2016). Thus, the researcher conducted data screening using SPSS (v.23) after entering the data. Data screening is an important step to check the data set for errors, ensure that the data entered correctly, and getting the data ready for analysis (Pallant, 2016). The researcher conducted the screening of the data to make sure that there is no missing value, and the data are free from outliers and suspicious responses. It also conducted to make sure that the data is normally distributed.

4.3.1 Missing Values

As most of the projects in social science research utilise survey and questionnaires, therefore, any missing data are considered a problem that affects the results (Hair et al., 2017). Hair et al. (2017) pointed out that the observation should be removed from the data file if the total of the missing data on the survey exceeds 15%. Recently, researchers are encouraged to use online data collection to avoid any missing values (Hair et al., 2017). This approach has enforced the respondents to answer the whole questionnaire without skipping any particular question. Therefore, the researcher in this study used an online questionnaire via Google drive and distributed it online to avoid any missing data. Hence, the results of the data screening with regard to missing values via SPSS showed that there is no missing data as all the data have been completed.

4.3.2 Outliers

Outliers are cases with scores which are considered different from the rest of the samples. These scores are either much lower or much higher (Pallant, 2016). This term also refers to an extreme response to a specific question or all questions (Hair et al., 2017). The researcher can identify the outliers using SPSS software following

some techniques. Checking the values of the standardised residual is considered one of the techniques that the researcher can use to check the outliers (Pallant, 2016; Tabachnick & Fidell, 2012). The researcher can identify the outliers if the case has a value of standardised residual above 3.3 or less than -3.3 (Pallant, 2016; Tabachnick & Fidell, 2012). Several statistical tests have recommended that if there are a few outliers identified, the researcher must remove them from the set of data (Hair et al., 2017; Pallant, 2016). Some analysis tests are very sensitive to the outliers. Outliers can affect the results of the analysis. Based on the above discussion, the researcher checked the extreme scores for all the variables of the study and then removed 35 cases from the data set that are considered outliers. Table 4.1 below shows the number of cases that removed, which considered as outliers for each variable.

Table 4.1

Results of Outliers

Constructs		Cases Removed	Reason for Removing Cases Based on Standardised Residual
LC	PS	1,15, 24,35,12,21,7,8,11,14,19,22,43, 17,27, 167, 265, 40,81,155	>-3
	RS	105,5	
OC	DC	3, 23,188	>-3
	OL	N.A	
	ME	132, 486	
	OG	51, 49	
	SE	30,100	
	CS	N.A	
SLO	SC	232	>-3
	SS	N.A	
	SA	223	
	SP	45,9	

Key: LC= Leadership competencies; OC= Organisational Culture, SLO= Students Learning Outcomes, PS= Personal Skills; RS: Required Skills; DC= Dominant Characteristics; OL= Organisational Leadership; ME= Management of Employees; OG= Organisation Glue; SE= Strategic Emphasis; CS= Criteria of Success; SC= Students Cognitive; SS= Students Skills; SA= Students Affective; SP= Student Performance

That table above displayed that the researcher removed the 35 cases because the results showed that the standardised (z) scores of these cases were beyond ± 3 (Hair et al., 2017; Pallant, 2016). These cases were considered outliers based on the suggested values by Hair et al. (2017) and Pallant (2016). Thus, the researcher removed these cases from the data set. The number of cases dropped from 533 to 498 cases.

4.3.3 Suspicious Responses

Suspicious response means the answers from the respondents are either inconsistent or straight-lining (Hair et al., 2017). The inconsistent answer means the participants give a different answer to a similar question that had asked in different ways. Either the respondent was not reading the questions carefully, or he/she was busy marking the answers in order to finish the survey quickly. On the contrary, straight-lining occurs when the respondents mark the same answer for a large number of questions. In this situation, the researcher should remove those cases with a similar response. As stated by Hair et al. (2017), suspicious response, like inconsistent answers or straight-lining, must be deleted from the data set.

Based on the discussion above, the researcher checked all responses and found that only 2 cases should be removed from the data set due to the straight-lining. Therefore, the cases dropped from 498 to 496 cases. Clearly, after checking the outliers and suspicious response rate, the researcher reduced the number of cases from 533 to 496. The researcher removed 37 cases that may affect the normality and the results of the study. Now, the data are ready for analysing the 496 cases.

4.3.4 Response Rate

Response rate refers to the percentage of people who responded to the research questionnaire. The level of response rate is a very crucial component to the researcher in terms of assessing the value of research results (Baruch, & Holtom, 2008; Creswell, 2012). A high response rate is better than a low response rate as a low response rate can be a threat to the survey usefulness (Creswell, 2012; Fraenkel et al., 2015). The higher response rate is preferable because it leads to statistical power and smaller confidence intervals. According to Baruch and Holtom (2008), previous research had suggested a benchmark for the response rate, which should be between 35-40%. However, at an individual level, this percentage is approximately 50%. They also pointed out that the researcher should explain if there is any deviation in these benchmarks, particularly downwards.

In this study, the researcher distributed 550 questionnaires between faculty members who worked at the higher education institutions in Jazan Province. A total of 533 questionnaires returned. After screening the data, the researcher deleted 37 cases. The 35 deleted cases were considered outliers. The remaining 2 cases were straight-lining. Therefore, the total number of cases deemed ready for analysis were 496 cases out of 533 returned. Based on that, the response rate in this study was 90%. Table 4.2 below shows the response rate of the current study.

Table 4.2

Results of Response Rate

Responses	Total
Distributed questionnaires	550
Unreturned questionnaires	17
Returned and entered questionnaires	533
Outliers cases and suspicious cases	37
Usable questionnaires	496
Response rate	90%

Table 4.2 above presented the response rate of the current study. The response rate was 90%. This percentage is considered a high response rate according to the suggested benchmark of response rate as stated by Baruch and Holtom (2008). Further, Creswell (2012) pointed out that the standard of the high rate of responses is above 50%. Therefore, the current study has a high response rate.

4.3.5 Normality Test

Normality test shows whether the data of the study are normally distributed or not. Pallant (2016) stated that normality is utilised to define a symmetrical, bell-shaped curve, which has the highest score frequency in the middle with smaller frequencies to the extremes. Data with normal distribution is desirable by a researcher who works with CB-SEM (Hair et al., 2017). In contrast, PLS-SEM does not require normality data. However, a researcher needs to confirm that the data are not very far from normality distribution because extremely non-normal data lead to inflating of the standard errors that got from bootstrapping (Hair et al., 2017).

The researcher can test the normality by the Kolmogorov-Smirnov and Shapiro-Wilks tests (Mooi & Sarstedt, 2011). These tests, in normally distributed data,

only refers to whether the null hypothesis must be rejected or not. However, when the data are very far from normality distribution, both tests offer only limited guidance. Instead, the researcher must examine other measures of distributions, including Skewness and Kurtosis (Hair et al., 2017). Besides, the normality test can be conducted visually or statistically. Statistically, the test can be done via several methods, such as checking the Skewness and Kurtosis values (Hair et al., 2017; Pallant, 2016). The visual test can be conducted by testing the diagrams of Histogram and the boxplot (Pallant, 2016).

Statistically, the researcher can check the normality test by obtaining the values of Skewness and Kurtosis. George and Mallery (2010) pointed out that the skewness and Kurtosis values that range between -2 and +2 are considered acceptable. Based on the discussion above, the researcher tested the normality for all the 131 items and all the constructs. Table 4.3 below displays the results of the normality test of the constructs. It shows the Skewness and Kurtosis values for the constructs, and APPENDIX I, shows the normality values for all the 131 items.

Table 4.3

Results of Normality Test

Variables	Constructs	Skewness	Kurtosis
LC	PS	-1.203	1.200
	RS	-.987	.079
OC	DC	-1.187	.824
	OL	-1.096	.421
	ME	-1.192	.765
	OG	-1.205	1.103
	SE	-1.238	1.453
	CS	-1.175	.967
SLO	SC	-1.271	1.170
	SS	-1.106	.729
	SA	-1.116	.826
	SP	-1.094	.751

Key: LC=Leadership competencies; OC= Organisational Culture, SLO= Students Learning Outcomes, PS= Personal Skills; RS: Required Skills; DC= Dominant Characteristics; OL= Organisational Leadership; ME= Management of Employees; OG= Organisation Glue; SE= Strategic Emphases; CS= Criteria of Success; SC= Students Cognitive; SS= Students Skills; SA= Students Affective; SP= Student Performance

The results in the Table above indicated that the value of Skewness and Kurtosis were within the acceptable range as suggested by George and Mallery (2010), Hair et al. (2014), Pallant (2016), and Tabachnick and Field (2013). Therefore, the data of this study were normally distributed based on the results of Skewness and Kurtosis.

Visually, the histogram diagrams, the probability-probability (P-P) plots and the quantile-quantile (Q-Q) plots of the variables also checked to test the normality of the data. Figure 4.1 and APPENDIX I shows the histogram diagrams. The results from the histogram diagrams displayed that the data were not too far from the normality distribution (Pallant, 2016; Hair et al., 2017).

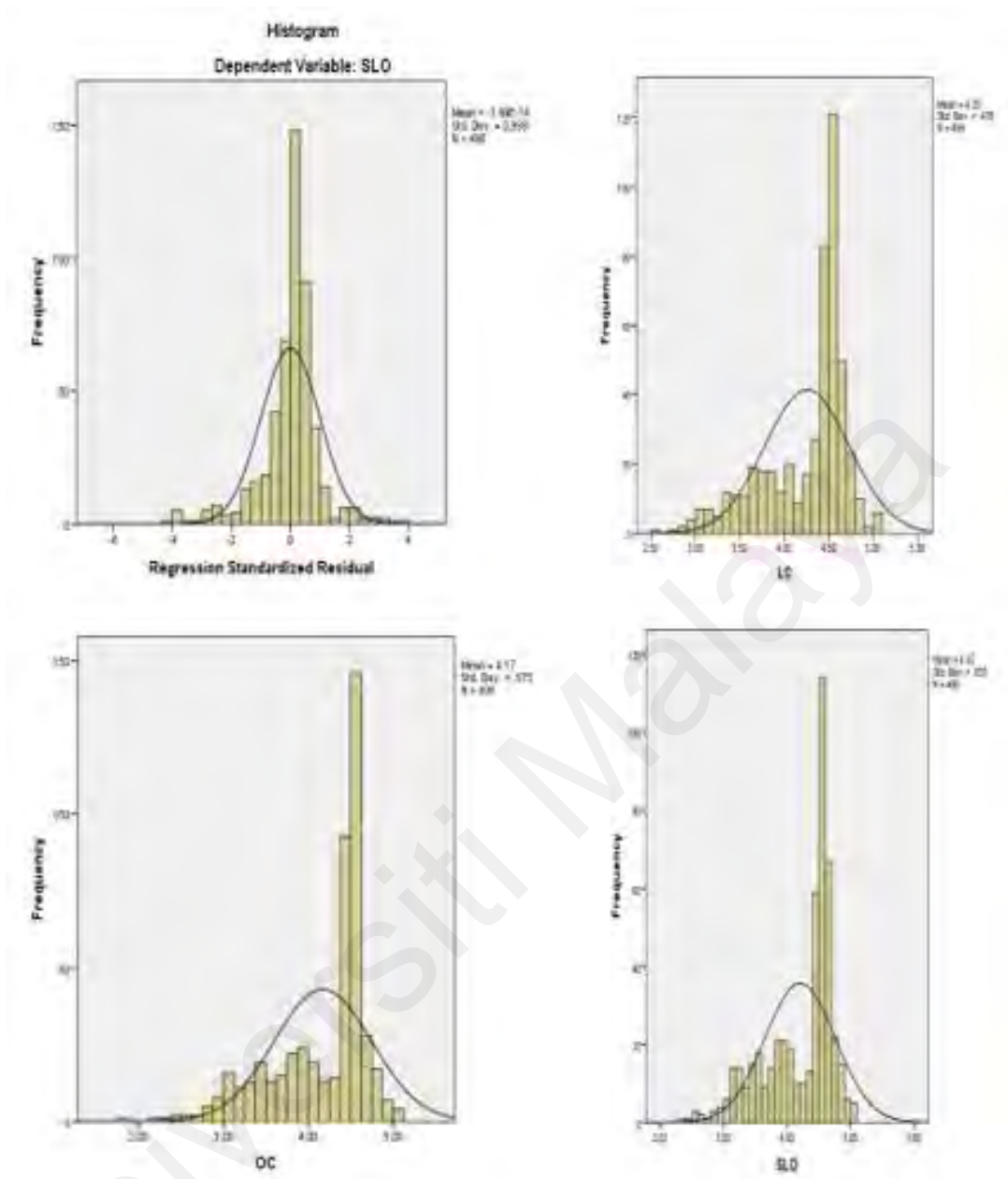


Figure 4.1. Results of Histogram Diagrams of the Variables (Key: LC=Leadership competencies; OC= Organisational Culture, SLO= Students Learning Outcomes)

To test the relationship between variables, the linearity checked using P-P plots and Q-Q plots which presented in Figure 4.2 below.

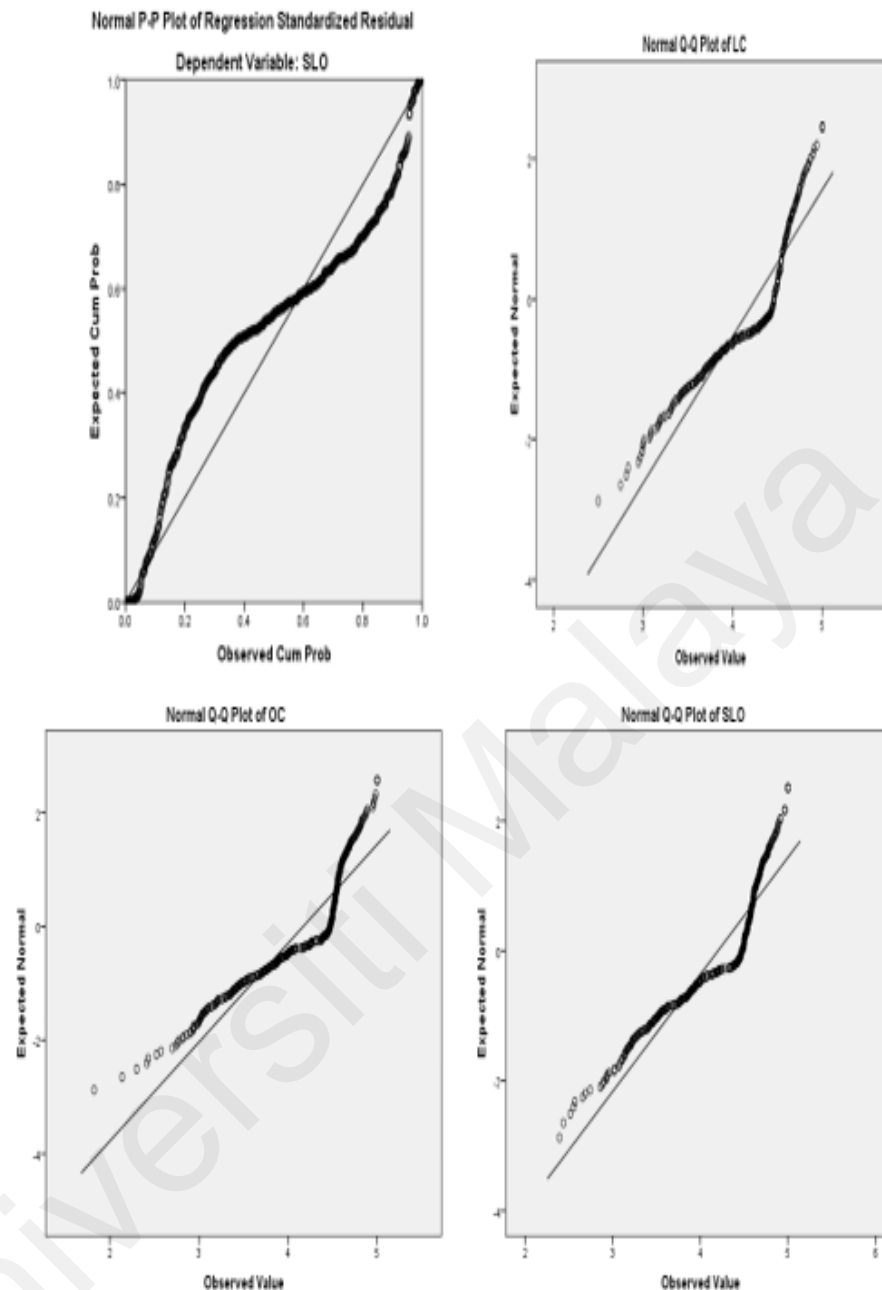


Figure 4.2. Results of P-P Plots and Q-Q Plots of the Variables (Key: LC=Leadership competencies; OC= Organisational Culture, SLO= Students Learning Outcomes)

The results from Figure 4.2 above showed that the plotted data did not swerve too much from the straight diagonal line. This finding indicated that the data are somehow normal and not too far from normality distribution (Pallant, 2016; Hair et

al., 2017). However, the current study analysed the data using PLS-SEM (non-parametric approach), which does not require a normal distribution of data as specified by Hair et al. (2017).

4.4 Descriptive Analysis

The researcher conducted a descriptive analysis after data screening. This is considered the second step after making sure that there are no missing data, and outliers in the data set. According to Pallant (2016), descriptive statistics used for several reasons including describing the characteristics of the respondents, checking the variables for any infringement of the assumptions following the statistical methods that the researcher utilised to address the research questions, or addressing particular research questions. Therefore, this section of the descriptive statistics discussed the demographic information of the respondents and the findings of the first three research questions.

4.4.1 Demographic Information of the Respondents

This section covered the demographic information of the respondents, including their gender, age, academic qualifications, years of experience, the institutions that they belong to, and their fields of specialisation. The analysis conducted based on the information provided by the respondents. Table 4.4 presents the frequency and percentage of the demographic profile of the respondent.

Table 4.4

Demographic Information of the Respondents

No	Demographic Item	Categories	Frequency	Percentage %
1	Gender	Male	228	46.0
		Female	268	54.0
2	Age	20-30	101	20.4
		31-40	257	51.8
		41- 50	107	21.6
		Over 50	31	6.3
3	Academic Qualification	Diploma	9	1.8
		Bachelor	58	11.7
		Master	299	60.3
		PHD/EDD	130	26.2
4	Years of Work Experience	Less than 5 Years	187	37.7
		From 6-10 Years	177	35.7
		From 11-15 Years	67	13.5
		Over 15 Years	65	13.1
5	Institute	Jazan University	339	68.3
		Technical and Vocational Training Corporation	157	31.7
6	Field	Technical Training	154	31.0
		Engineering	40	8.1
		Social Science	30	6.0
		Arts & Humanities	65	13.1
		Science	79	15.9
		Health Science	50	10.1
		Applied Science	31	6.3
		Others	47	9.5

The above Table 4.4 shows that a total of 268 (54.0%) of the respondents were female, while the rest of the respondents 228 (46.0%) were male. Regarding the age of the respondents, the majority of them, 257 (51.8%), were between 31-40 years. 107 (21.6%) of the total respondents were between 41-50 years, while 101 (20.4%) were between 20-30 years old. Those over 50 years old made up 31 (6.3%) of the total

response. Thus, most of the respondents were between 31-40 years, and the minority of them were over 50 years old.

The largest percentage of the respondents 299 (60.3%) possess Master degrees, while the smallest percentage of the respondents 9 (1.8%) holds just a diploma. A total of 130 (26.2%) of the respondents possess a doctorate's degree, while 58 (11.7%) own a bachelor's degree. Therefore, the majority of the respondents were holding Master's degrees.

The respondents who have less than 5 years of work experience formed 187 (37.7%) of the respondents, while 177 (35.5%) have work experience between 6-10 years. A total of 67 (13.5%) respondents have work experience between 11-15 years. A number of 65 (13.3%) respondents have work experience over 15 years.

The above Table also shows that majority of the respondents from Jazan University (JU) totalled 339 (68.3%) respondents, while the rest 157 (31.7%) respondents were from Technical and Vocational Training Corporation (TVTC). Regarding the field that the respondents belong to, a total of 154 (31.0%) were working in technical training, which is related to TVTC. Majority of the respondents who belong to Jazan University from the field of Science 79 (15.9%) and the rest of the respondents came from different fields, 65 (13.1%) from Arts & Humanities, 30 (6.0%) from Health Science, 40 (8.1%) from Engineering, 31 (6.3%) from Applied Science, 30 (6.0%) from Social Science, and the respondents from other different fields are 47 (9.5 %) from the total of the responses.

Clearly, the majority of the respondents were from Jazan University (JU). Most of the respondents were holding Master degrees. The largest proportion of respondents

have more than five years of work experience. Female respondents were more than male in this study. The age of most of the respondents ranges from 31 to 40 years old.

4.4.2 Level of Leadership Competencies (LC)

Findings of research question 1: What is the level of leadership competencies of academic leaders in selected Saudi higher education institutions?

To answer the first research question, the researcher analysed the data using descriptive statistics via SPSS. The researcher focused on the overall mean score of the respondents. The score of the overall mean indicates a level of agreement from the respondents (Hair et al., 2017). Table 4.5 shows the percentage, mean, and standard deviation (StD) of each item belonging to the leadership competencies of academic leaders.

Table 4.5

Mean and Standard Deviation of Leadership Competencies (LC)

Leadership Competencies (LC)		SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	StD
Personal Skills	PS1	0.2	1.2	5.2	32.7	60.7	4.52	.672
	PS 2	0.4	3.0	10.3	51.4	34.9	4.17	.762
	PS 3	0.2	4.4	11.3	40.9	43.1	4.22	.831
	PS 4	0.0	1.2	4.2	55.2	39.3	4.33	.615
	PS 5	0.2	2.4	10.7	47.2	39.5	4.23	.751
	PS 6	0.0	1.8	5.6	52.8	39.7	4.30	.659
	PS 7	0.0	1.6	6.3	41.3	50.8	4.41	.682
	PS 8	0.0	4.0	11.9	43.8	40.3	4.20	.802
	PS 9	0.2	2.2	9.1	46.6	41.9	4.28	.735
	PS 10	0.0	3.2	6.3	47.2	43.3	4.31	.729
	PS 11	0.0	1.2	4.8	43.3	50.6	4.43	.645
	PS 12	0.0	0.8	9.9	44.4	45.0	4.33	.685
	PS 13	0.0	0.0	2.2	48.0	49.8	4.48	.543

‘Table 4.5 continued’

Leadership Competencies (LC)	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	StD
Required Skills							
RS 14	0.8	2.2	12.5	32.9	51.6	4.32	.837
RS 15	0.2	1.6	5.8	55.8	36.5	4.27	.660
RS 16	0.2	1.6	9.7	45.4	43.1	4.30	.724
RS 17	0.0	1.8	7.9	54.0	36.3	4.25	.673
RS 18	0.2	2.6	11.1	42.9	43.1	4.26	.773
RS 19	0.2	2.6	12.5	49.4	35.3	4.17	.757
RS 20	0.2	1.4	8.1	46.6	43.8	4.32	.700
RS 21	0.0	0.6	13.9	48.8	36.7	4.22	.696
RS 22	0.4	3.4	13.9	43.5	38.7	4.17	.820
RS 23	0.0	2.6	10.3	50.4	36.7	4.21	.729
RS 24	0.6	3.2	10.9	43.1	42.1	4.23	.814
RS 25	1.8	5.4	12.7	43.8	36.3	4.07	.931
RS 26	1.0	5.2	15.3	41.9	36.5	4.08	.902
RS 27	6.9	13.7	10.7	37.1	31.7	3.73	1.232
RS 28	4.4	10.1	12.1	37.9	35.5	3.90	1.127
RS 29	0.4	2.0	8.9	49.6	39.1	4.25	.732
Total						4.25	.477

Key: %= percentage; SD= Strongly Disagree; D= Disagree; N= Neutral; A= Agree; SA= Strongly Agree; PS= Personal Skills; RS: Required Skills

In this research question, the researcher focused on the respondents’ opinion regarding the level of leadership competencies of academic leaders in selected Saudi higher education institutions. Their opinions measured based on a five-point Likert scale which ranges from (1) strongly disagree (SD) to (5) strongly agree (SA). According to Hair et al. (2017), a higher score with a specific statement indicates a higher level of agreement from the respondents. The overall mean score refers to the level of agreement from the respondents. According to Hamzah, Juraime, and Mansor (2016) and Khumsikiew, Donsamak, and Saeteaw (2015), each mean score refers to a specific interpretation of the level of agreement. Table 4.6 below presents the interpretation of the mean score.

Table 4.6

Interpretation of Mean score

Mean Score	Interpretation
1.00 – 1.80	Very Low
1.81 – 2. 60	Low
2.61 – 3.20	Medium
3.21 -4.20	High
4.21-5.00	Very High

(Source: Hamzah et al., 2016; Khumsikiew et al., 2015).

The results of Table 4.5 above show that the overall mean score of the respondents was 4.25, with a standard deviation of .477. Based on the interpretation of the mean score on Table 4.6 above, this score of the high mean of (4.25) refers to the very high level of agreement. Therefore, the results showed that the respondents agreed that the level of leadership competencies in selected Saudi higher education institutions is very high. Saudi academic leaders in the selected institutions have a very high level of competencies in terms of having a very high level of personal skills and required skills. They have a very high level of the core competencies that reflects the personal skills of leaders. Their personal skills involve their professionalism, self-direction, interpersonal skills, business acumen skills, problem-solving skills, financial skills, teamwork, flexibility, building desired relationship, managing client relationship, and communication skills.

The results also displayed that academic leaders have a very high level of leadership competencies that illustrate the required skills. The required skills of leaders include creating team, leading team, evaluating different situation accurately and quickly, high skills of project management, implementing policies of employees'

involvement, training subordinates, teaching assistants, visioning process, promoting conflict resolutions, and skills of leadership abilities.

To sum up, the respondents in this study have a very high level of agreement regarding the two aspects that have created a very high level of leadership competencies. These two aspects involve personal skills and the required skills of leaders. Therefore, according to the respondents, the academic leaders in selected Saudi higher education institutions have a very high level of personal and required skills that allow them to be competent leaders in their institutions. They have a very high level of leadership competencies that will enable them to lead and achieve the desired outcomes from higher education institutions.

4.4.3 The Type of Organisational Culture (OC)

Findings of research question 2: What type of organisational cultures is being practised currently in selected Saudi higher education institutions?

To answer the second research question, the researcher also analysed the data using descriptive statistics via SPSS. The researcher stressed on the overall mean score of the respondents. The score of the overall mean score indicates a level of agreement from the respondents (Hair et al., 2017). The researcher focused on the respondents' opinion regarding the type of organisational culture that is being practised currently in selected Saudi higher education institutions. Their opinions measured on a 5-point Likert scale that range from (1) strongly disagrees (SD) to (5) strongly agree (SA). The high score of responses denotes the high level of agreement (Hair et al., 2017). A type of organisational culture was tested based on the instruments called the OCAI for Cameron and Quinn (2011).

This instrument has six different dimensions, namely dominant characteristics, organisational leadership, management of employees, organisation glue, strategic emphasis, and criteria of success. Each dimension presents four different types of culture which exemplified in the Clan culture, Adhocracy culture, Market culture, and Hierarchy culture (Cameron & Quinn, 2011). The following tables show the percentage, mean, and standard deviation (StD) of each item belonging to these six dimensions of the organisational culture.

Table 4.7

Mean and Standard Deviation of Dominant Characteristic (DC)

		SD	D	N	A	SA	Mean	StD
		(%)	(%)	(%)	(%)	(%)		
1. Items of Dominant Characteristic (DC)	DC 30	2.6	6.9	12.5	30.2	47.8	4.14	1.047
	DC 31	1.6	5.6	10.3	50.6	31.9	4.05	.889
	DC 32	0.6	4.4	13.3	40.5	41.1	4.17	.865
	DC 33	1.0	8.1	14.3	42.3	34.3	4.01	.949
	DC 34	2.2	5.4	18.5	38.5	35.3	3.99	.979
	DC 35	0.4	3.2	10.7	49.2	36.5	4.18	.778
	DC 36	0.6	2.4	9.5	48.0	39.5	4.23	.767
	DC 37	0.2	2.4	9.3	49.2	38.9	4.24	.734
	DC 38	0.0	1.8	8.5	48.4	41.3	4.29	.697
	DC 39	0.6	3.4	12.1	47.2	36.7	4.16	.810
	DC 40	1.4	6.7	12.7	42.3	36.9	4.07	.942
	DC 41	0.2	1.4	9.9	47.0	41.5	4.28	.714
Total mean score of DC							4.151	.634

Key: %= percentage; SD= Strongly Disagree; D= Disagree; N= Neutral; A= Agree; SA= Strongly Agree; DC= Dominant Characteristics

Table 4.7 displays descriptive statistics on the dimension of the dominant characteristics. The results as presented in the above Table, showed that the overall

mean score of the respondents was 4.151 with a standard deviation of .634. The high level of mean score referred to a high level of agreement from the respondents. The results indicated that there is a high level of practising the organisational culture in selected Saudi higher education institutions.

Table 4.8

Mean and Standard Deviation of Organisational Leadership (OL)

		SD	D	N	A	SA	Mean	StD
		(%)	(%)	(%)	(%)	(%)		
2.Items of Organisational Leadership (OL)	OL42	0.6	2.4	9.7	34.5	52.8	4.36	.803
	OL43	1.0	3.4	10.7	48.6	36.3	4.16	.821
	OL44	0.8	3.8	15.1	37.9	42.3	4.17	.879
	OL45	0.8	2.4	12.1	46.8	37.9	4.19	.798
	OL46	1.0	3.0	10.7	44.0	41.3	4.22	.829
	OL47	2.6	4.2	21.2	40.7	31.3	3.94	.963
	OL48	2.0	6.3	15.3	37.7	38.7	4.05	.986
	OL49	8.5	15.1	12.5	34.9	29.0	3.61	1.278
	OL50	0.6	1.6	9.9	44.0	44.0	4.29	.758
	OL51	0.0	3.2	11.3	47.2	38.3	4.21	.764
	OL52	0.0	3.4	9.7	45.6	41.3	4.25	.766
	OL53	0.6	2.2	12.5	47.6	37.1	4.18	.779
Total mean							4.134	.634
score of OL								

Key: %= percentage; SD= Strongly Disagree; D= Disagree; N= Neutral; A= Agree; SA= Strongly Agree; OL= Organisational Leadership

Table 4.8 presents descriptive statistics on the dimension of organisational leadership. The results as presented in the Table above showed that the overall mean score of the respondents was 4.134, with a standard deviation of .634. The high level of mean score showed a high level of agreement from the respondents. The results displayed that there is a high level of practising organisational culture in selected Saudi higher education institutions.

Table 4.9

Mean and Standard Deviation of Management of Employees (ME)

		SD	D	N	A	SA	Mean	StD
		(%)	(%)	(%)	(%)	(%)		
3.Items of Management of Employees (ME)	ME 54	0.6	6.0	12.3	34.9	46.2	4.20	.918
	ME 55	0.6	3.6	9.5	53.6	32.7	4.14	.776
	ME 56	1.2	6.9	15.9	40.3	35.7	4.02	.949
	ME 57	1.0	3.6	13.1	49.8	32.5	4.09	.827
	ME 58	2.0	5.8	15.3	41.1	35.7	4.03	.963
	ME 59	0.6	3.8	12.1	47.4	36.1	4.15	.818
	ME 60	0.8	4.0	11.3	44.2	39.7	4.18	.845
	ME 61	0.2	2.4	10.1	51.0	36.3	4.21	.733
	ME 62	1.8	3.8	12.7	45.4	36.3	4.10	.893
	ME 63	0.6	5.2	17.3	47.2	29.6	4.00	.858
	ME 64	1.0	3.0	14.9	44.6	36.5	4.13	.844
Total mean							4.113	.671
score of ME								

Key: %= percentage; SD= Strongly Disagree; D= Disagree; N= Neutral; A= Agree; SA= Strongly Agree; ME= Management of Employees

Table 4.9 shows the descriptive statistics on the dimension of management of employees. The results, as shown in Table 4.9 above, displayed that the overall mean score of the respondents was 4.113 with a standard deviation of .671. The high level of mean score referred to a level of agreement from the respondents. The results illustrated that there is a high level of practising the organisational culture in selected Saudi higher education institutions.

Table 4.10

Mean and Standard Deviation of Organisation Clue (OG)

		SD	D	N	A	SA	Mean	StD
		(%)	(%)	(%)	(%)	(%)		
4.Items of Organisation Glue (OG)	OG 65	0.8	1.4	8.7	34.7	54.4	4.41	.773
	OG 66	0.8	2.2	9.3	50.2	37.5	4.21	.765
	OG 67	0.6	2.2	10.9	44.6	41.7	4.25	.781
	OG 68	0.8	3.0	13.3	44.2	38.7	4.17	.829
	OG 69	0.2	2.2	9.9	44.6	43.1	4.28	.747
	OG 70	0.4	2.4	12.1	46.4	38.7	4.21	.775
	OG 71	0.4	1.6	8.3	43.3	46.4	4.34	.731
	OG 72	0.2	1.2	9.7	48.0	40.9	4.28	.703
	OG 73	6.9	10.9	14.3	32.1	35.9	3.79	1.231
	OG 74	0.2	2.2	12.5	48.2	36.9	4.19	.751
	OG 75	0.0	0.6	9.7	47.2	42.5	4.32	.669
	OG 76	0.0	1.0	10.9	48.8	39.3	4.26	.688
	OG 77	0.2	1.4	10.5	46.0	41.9	4.28	.722
Total mean score of OG							4.229	.568

Key: %= percentage; SD= Strongly Disagree; D= Disagree; N= Neutral; A= Agree; SA= Strongly Agree; OG= Organisation Glue

Table 4.10 displays descriptive statistics on the dimension of the organisation glue. The results presented in Table 4.9 above showed that the overall mean score of

the respondents was 4.229, with a standard deviation of .568. The high level of mean score illustrated a high level of agreement from the respondents. The results indicated that there is a high level of practising organisational culture in selected Saudi higher education institutions.

Table 4.11

Mean and Standard Deviation of Strategic Emphases (SE)

		SD	D	N	A	SA	Mean	StD
		(%)	(%)	(%)	(%)	(%)		
5.Items of Strategic Emphases (SE)	SE 78	0.6	3.0	12.9	33.7	49.8	4.29	.848
	SE 79	0.6	2.6	13.1	51.2	32.5	4.12	.775
	SE 80	1.0	3.0	13.5	40.3	42.1	4.20	.855
	SE 81	0.4	1.2	10.3	53.6	34.5	4.21	.701
	SE 82	0.4	3.0	11.3	45.0	40.3	4.22	.792
	SE 83	0.4	1.6	13.5	51.4	33.1	4.15	.738
	SE 84	0.6	2.8	14.9	43.5	38.1	4.16	.821
	SE 85	0.2	2.0	9.3	52.4	36.1	4.22	.710
	SE 86	0.6	2.8	9.3	48.6	38.7	4.22	.775
	SE 87	0.2	1.6	8.3	52.8	37.1	4.25	.689
Total mean score of SE							4.203	.588

Key: %= percentage; SD= Strongly Disagree; D= Disagree; N= Neutral; A= Agree; SA= Strongly Agree; SE= Strategic Emphasis

Table 4.11 shows the descriptive statistics on the dimension of strategic emphasis. The results presented in Table 4.11 showed that the overall mean score of the respondents was 4.203, with a standard deviation of .588. The high level of mean score showed a high level of agreement from the respondents. The results indicated

that there is a high level of practising organisational culture in selected Saudi higher education institutions.

Table 4.12

Mean and Standard Deviation of Criteria of Success (CS)

		SD	D	N	A	SA	Mean	StD
		(%)	(%)	(%)	(%)	(%)		
6.Items of Criteria of Success (CS)	CS 88	0.4	2.6	12.3	34.1	50.6	4.32	.819
	CS 89	0.2	2.6	9.5	53.0	34.7	4.19	.727
	CS 90	0.0	0.6	7.7	46.2	45.6	4.37	.650
	CS 91	0.4	4.0	12.1	47.4	36.1	4.15	.812
	CS 92	0.6	4.4	14.1	43.5	37.3	4.13	.855
	CS 93	0.6	5.8	12.5	42.9	38.1	4.12	.884
	CS 94	0.4	4.6	14.7	40.7	39.5	4.14	.863
	CS 95	0.4	3.8	14.1	45.4	36.3	4.13	.823
	CS 96	0.6	3.2	15.1	46.2	34.9	4.11	.820
	CS 97	0.4	2.6	14.1	45.6	37.3	4.17	.793
	CS 98	0.4	2.8	10.9	46.0	39.9	4.22	.781
	CS 99	0.4	2.4	12.3	47.6	37.3	4.19	.771
	CS100	0.8	2.0	18.5	40.5	38.1	4.13	.839
The total								
mean score							4.186	.607
of CS								

Key: %= percentage; SD= Strongly Disagree; D= Disagree; N= Neutral; A= Agree; SA= Strongly Agree; CS= Criteria of Success

Table 4.12 presents the descriptive statistics on the dimension of the criteria of success. The results presented in Table 4.12 above showed that the overall mean score of the respondents was 4.186, with a standard deviation of .607. The high level of mean score showed a high level of agreement from the respondents. The results showed that there is a high level of practising organisational culture in selected Saudi higher education institutions.

Based on the discussion above, the results indicated that there is a high level of practising organisational culture in selected Saudi higher education institutions. However, the researcher carried out the said analysis to identify the type of organisational culture that is being practised currently in selected Saudi higher education institutions. In order to determine the type of organisational culture that is being practised now, the researcher focused on the total mean score of each dimensions. Each dimension of the OCAI has four types of culture. The highest mean score indicates a level of respondents' agreements. Thus, the dimension that achieves a high mean score analysed to identify the type of organisational culture.

Therefore, the results from the tables above indicated that dimension number (4) of the OCAI, which is Organisation Glue had the highest overall mean score of 4.229 with a standard deviation of .568. The results indicated that the fourth dimension Organisation Glue had the highest level of agreements from the respondents. From this domination, the researcher identified the type of organisational culture that is being practised currently in selected Saudi higher education institutions. Each dimension of the OCAI has different items that present a specific type of culture including: (A) Clan culture, (B) Adhocracy culture, (C) Market culture, and (D) Hierarchy culture (Cameron & Quinn, 2011).

Accordingly, the researcher carried out the descriptive statistics for the fourth dimension of the OCAI to identify the type of organisational culture. The dimension of organisation glue has different items. Each group of items presents a specific type of organisational culture. Table 4.13 shows the results of the descriptive statistics of the items that are related to organisation glue.

Table 4.13

The Mean and Standard Deviation of Organisation Glue (OG)

Items	Type of Culture	Minimum	Maximum	Mean	StD
OGA					
(OG65, OG66, OG67)	(A) Clan Culture	1.00	5.00	4.288	.679
OGB					
(OG68, OG69, OG70)	(B) Adhocracy Culture	1.33	5.00	4.219	.680
OGC					
(OG71, OG72, OG73, OG74)	(C) Market Culture	1.75	5.00	4.151	.655
OGD					
(OG75, OG76, OG77)	(D) Hierarchy Culture	2.33	5.00	4.287	.577

The results from the table above indicated that the highest mean score belongs to the OGA. The mean score of OGA was 4.288 with a standard deviation of .679. The OGA means the first type of culture within organisation glue, which is the Clan Culture. This refers to the respondents who gave the highest agreements to the

Clan Culture. Therefore, according to the respondents, the type of organisational culture that is being practised currently in selected Saudi higher education institutions is the Clan Culture.

4.4.4 Students Learning Outcomes (SLO)

The findings of research question 3: At what level are student learning outcomes in selected Saudi higher education institutions?

To answer the third research question, the researcher applied descriptive statistics. The focus was on the overall mean score of the respondents because the researcher was interested in the respondents' opinion regarding the level of students' learning outcomes in selected Saudi higher education institutions. Table 4.14 shows the results of the descriptive statistics of the items regarding the students learning outcomes.

Table 4.14

Mean and Standard Deviation of Students Learning Outcomes

Students Learning Outcomes		SD (%)	D(%)	N (%)	A (%)	SA (%)	Mean	StD
Student Cognitive Outcome	SC 101	0.6	4.6	10.1	34.7	50.0	4.29	.871
	SC 102	0.2	2.6	9.9	56.9	30.4	4.15	.711
	SC 103	0.2	2.6	10.9	42.5	43.8	4.27	.773
	SC 104	0.0	2.6	13.3	57.3	26.8	4.08	.707
	SC 105	1.4	6.5	15.1	42.9	34.1	4.02	.937
	SC 106	0.4	4.0	12.9	51.2	31.5	4.09	.796
	SC 107	1.2	4.2	15.7	41.3	37.5	4.10	.896
Students Skills Outcome	SS 108	0.0	1.2	12.5	37.7	48.6	4.34	.740
	SS 109	0.0	3.0	14.9	56.3	25.8	4.05	.726
	SS 110	0.0	2.6	13.9	42.7	40.7	4.22	.778
	SS 111	0.0	3.0	14.3	53.8	28.8	4.08	.739
	SS 112	0.2	2.4	10.1	49.4	37.9	4.22	.739
	SS 113	0.2	2.6	11.5	49.8	35.9	4.19	.751
	SS 114	0.2	3.8	12.7	44.4	38.9	4.18	.810
	SS 115	0.4	2.8	12.7	49.0	35.1	4.16	.777
	SS 116	0.2	4.0	15.3	43.5	36.9	4.13	.828
	SS 117	0.0	3.4	10.3	49.0	37.3	4.20	.757
Students Affective Outcome	SA 118	0.0	1.8	11.5	42.3	44.4	4.29	.739
	SA 119	0.0	2.0	13.7	54.6	29.6	4.12	.708
	SA 120	0.0	2.4	14.9	41.1	41.5	4.22	.784
	SA 121	0.0	2.6	13.5	52.2	31.7	4.13	.735
	SA 122	0.2	2.2	14.7	44.0	38.9	4.19	.780
	SA 123	0.2	2.2	15.3	49.6	32.7	4.12	.757
	SA 124	0.4	2.2	10.7	48.2	38.5	4.22	.754
Students' Academic Performance	SP 125	0.4	3.2	9.7	43.8	42.9	4.26	.792
	SP 126	0.4	2.8	5.6	41.9	49.2	4.37	.751
	SP 127	0.8	2.0	7.9	40.3	49.0	4.35	.776
	SP 128	0.4	3.4	6.9	41.1	48.2	4.33	.784
	SP 129	0.4	3.0	10.5	46.2	39.9	4.22	.783
	SP 130	0.4	1.4	8.9	45.0	44.4	4.31	.726
	SP 131	1.4	2.8	8.9	45.6	41.3	4.23	.832
Total							4.20	.555

Note: %= percentage; SD= Strongly Disagree; D= Disagree; N= Neutral; A= Agree; SA= Strongly Agree; SC= Students Cognitive; SS= Students Skills; SA= Students Affective; SP= Student Performance

In this question, the researcher focused on the respondents' opinion regarding the level of students' learning outcomes in selected Saudi higher education. As stated earlier, the respondents' opinions were measured using a five-point Likert scale ranges from (1) strongly disagree (SD) to (5) strongly agree (SA). According to Hair et al. (2017), a higher score with a specific statement indicates a higher level of agreement from the respondents.

The results of Table 4.14 above showed that the overall mean score of the respondents was 4.20, with a standard deviation of .555. Based on the interpretation of the mean score on Table 4.6, that mentioned earlier, this score of the mean (4.20) refers to the high level of agreement (Hair et al., 2017; Hamzah et al., 2016; Khumsikiew et al., 2015). The total mean score in this analysis was (4.20), which ranged between 3.21 to 4.20 and indicated to a high mean score (see Table 4.6).

The results referred to the high level of agreement from the respondents (Hair et al., 2017; Hamzah et al., 2016; Khumsikiew et al., 2015). It is evident from Table 4.14 above that the mean score of the respondents was high for all the four kinds of learning outcomes. All learning outcomes defined by this study, including cognitive learning outcome, skill-based learning outcomes, affective learning outcomes, and academic performance achieved a high level of agreement from the respondents. Hence, the results demonstrated that the respondents agreed that the level of students' learning outcomes in selected Saudi higher education institutions was high, in terms of their cognitive outcomes, skills outcomes, affective outcomes and their academic performance.

In order for the researcher to answer the rest of the research questions (RQ4, RQ5, & RQ6) which focus on hypotheses testing, the measurement and structural

model assessments should be conducted to test the predictive power of the model and the relationship between constructs. The measurement model and structural model assessments were applied via PLS-SEM as an important step for hypotheses testing. According to Hair et al. (2017), the model assessment gives practical measures that clarify the interactions between the constructs and the indicators (measurement models) and the relationship between the constructs (structural model). The following sections will be included as in-depth description of the model assessment.

4.5 Measurement Model Assessment

The measurement assessment model allows the researcher to determine how well the theory is suitable for the data. The model assessment emphasises on the measurement models. According to Hair et al. (2017), checking the PLS-SEM allows the researcher to measure the reliability and validity of different constructs.

In this study, the researcher evaluated the measurement model assessment by addressing: Model Fit Indicators (Goodness Of Fit), Construct Reliability (Composite Reliability (CR), Cronbach's Alpha), Convergent Validity (Outer Loadings, Average Variance Extracted (AVE)), Discriminant Validity (Fornell-Larcker Criterion, Cross Loading, and HTMT) (Hair et al., 2017). Figure 4.3 presents the PLS Algorithm results for the assessment of the measurement model.

Based on the above explanation, the following sections included in-depth details regarding the measurement model assessment.

4.5.1 Model Fit Indicators: Goodness of Fit

Researchers use the measure of Goodness of Fit to evaluate the quality of the estimated model by comparing the values of the dependent variables with values predicted by the assessed model (Hair, Black, Babin, & Anderson, 2014). Hair et al. (2017) pointed out that researchers who desired to evaluate the model fit cannot draw on the global goodness of fit by using PLS-SEM. Indeed, the word “fit” cannot be entirely transferred to PLS-SEM that emphasises on the prediction. The standard of single goodness of fit is not available and accessible in PLS-SEM. The researcher cannot evaluate the estimation by PLS-SEM. Therefore, researchers are using bootstrapping and blindfolding instead of the goodness of fit.

Although Hair et al. (2017) stated that researchers have to be more careful to report or use model fit for PLS-SEM, however, some other researchers started requesting researchers to report the indices of model fit for PLS-SEM (Henseler et al., 2014). The researcher who uses the path model (PLS) that only involves the reflectively measured model, may be interested in the model fit. Therefore, the PLS provides different measures to assess the fit model which are: Standardised Root Mean Square Residual (SRMR), Exact fit criteria d_{ULS} and d_G , Normed Fit Index (NFI), Chi-Square, and RMS_theta (Henseler et al., 2014).

Henseler et al. (2014) presented the SRMR as a measure of goodness of fit for PLS, which can utilise to avoid the misspecification of the model. The value of SRMR has a particular threshold of < 0.08 , and the value of NFI is > 0.90 . According to Hu

and Bentler (1999), the value that is below 0.10 or of 0.08 is considered a good fit.

Table 4.15 presents the results of the model fit.

Table 4.15

Results of Model Fit (Goodness of Fit)

	Saturated Model	Estimated Model
SRMR	0.054	0.056
d_ULS	81.441	90.464
d_G	n/a	n/a
Chi-Square	n/a	Infinite
NFI	n/a	n/a

Note. n/a= Not Available

The results presented in the Table above showed that SRMR was lower than 0.08, which refers to a good fit and clarifies that the data fit the model well. The value of d_ULS was 81.441 for the saturated model and 90.464 for the estimated model. However, the other measures to assess the fit model, including d_G, NFI, Chi-Square, and RMS_theta, are not available on the output of SEM-PLS, as shown in the table above.

4.5.2 Construct Reliability: (Composite Reliability (CR) and Cronbach Alpha)

Reliability can be measured by testing the consistency and stability of the scale. Reliability refers to the internal consistency of the scale (Pallant, 2016). It can be measured using several statistical methods. Cronbach's Coefficient alpha is the most common statistic that assesses the internal consistency of the scale. It shows the average correlation among all the items of the scale. For this study, the researcher

tested internal reliability (Cronbach's alpha) and Composite Reliability (CR) via PLS-SEM to assess the reliability of the measurement model.

For internal reliability, the researcher assessed the Cronbach's alpha for all constructs. According to Tavakol and Dennick (2011), the acceptable value of Cronbach's alpha is from 0.70 to 0.95. Nunally (1978) stated that the recommended value of Cronbach's alpha must be 0.7 or higher (Pallant, 2016). Based on that, all the constructs of this study have acceptable values of Cronbach's alpha which clearly presented in Table 4.16.

Table 4.16

Results of Cronbach's Alpha and Composite Reliability (CR)

Construct	Cronbach 's Alpha (>0.7)	Composite Reliability (CR) (>0.7)
PS	0.902	0.918
RS	0.920	0.931
DC	0.924	0.936
OL	0.927	0.938
ME	0.937	0.946
OG	0.929	0.939
SE	0.920	0.933
CS	0.938	0.947
SC	0.921	0.936
SS	0.933	0.943
SA	0.916	0.933
SP	0.825	0.872

Key: PS= Personal Skills; RS: Required Skills; DC= Dominant Characteristics; OL= Organisational Leadership; ME= Management of Employees; OG= Organisation Glue; SE= Strategic Emphasis; CS= Criteria of Success; SC= Students Cognitive; SS= Students Skills; SA= Students Affective; SP= Student Performance

Hair et al. (2017) stated that it would be more suitable if the researcher applied another measure to assess the internal consistency of the scale due to the limitation of Cronbach's alpha in the population. Another measure of the internal consistency as suggested by Hair et al. (2017) is the Composite Reliability (CR). The CR is also applied to assess the internal consistency of the scale. Nunally and Bernstein (1994) pointed out that the values ranging between 0.70 and 0.90 are acceptable values of CR (Hair et al., 2017). They also stated that the values above 0.95 are not desirable values. This high value (> 0.95) indicates that the variable is assessing the same phenomenon, so unlikely to be an adequate measure for the construct (Hair et al., 2017). In contrast, if the value is below 0.60, this refers to a lack of internal consistency of the scale. Based on that, Table 4.16 above presents the CR for all constructs, which considered within the acceptable composite reliability value.

4.5.3 Convergent Validity: (Outer Loadings and Average Variance

Extracted)

Convergent validity refers to the correlation between the constructs. It means the extent to which the indicators within the same construct are correlated positively with the alternative indicators (Hair et al., 2017). In order to test the convergent validity, the researcher should consider the outer loading (indicator reliability) of the indicators and the average variance extracted (AVE) from the constructs. The following sections included more details regarding the outer loadings and the AVE.

4.5.3.1 The Outer Loadings (Indicator Reliability)

The outer loading measures within the indicators and called the indicator reliability. The indicator reliability is "the square of standardised indicator's outer loading" (Hair et al., 2017, p.137). It refers to the communality of the items. It

indicates how much of the variance in the items are described by the construct, and also denotes the variance that was extracted from the items. According to Hair et al. (2017), all the outer loading indicators must be significant (0.708 or higher). Further, the value of 0.5 and above are considered significant (Hair et al., 2014). The indicators with low outer loadings must be removed from the scale. However, the researcher can, on a condition, remove the indicators from the outer loadings range between 0.40 and 0.70 and under (Hair et al., 2017). The elimination of indicators happened if the removal leads to increase in the values of the CR and AVE to the recommended values.

4.5.3.2 The Average Variance Extracted (AVE)

The AVE is the common measure that the researcher used to begin the convergent validity of the constructs level. Further, the AVE is equal to the communality of the constructs. Hair et al. (2017), cited that the AVE value of 0.50 and above refers to the constructs that illuminate more than half of the variance of their items. On the other hand, if the value of the AVE is less than 0.50, it means that more errors remain in the items than the variance as described by the constructs.

Based on the above discussion, the researcher established the convergent validity using the outer loadings for the whole items and the values of the AVE on the constructs level. Tables 4.17, 4.18, and 4.19 present the outer loadings for the whole items in the scale and the results of the AVE on the constructs level.

Table 4.17

Results of the Outer Loadings, CR, and the AVE for Leadership Competencies (LC)

Constructs	Items	Loading (>0.5)	CR	AVE
Personal Skills (PS)	PS1	0.774	0.918	0.506
	PS2	0.737		
	PS3	0.742		
	PS4	Deleted		
	PS5	0.678		
	PS6	0.652		
	PS7	0.641		
	PS8	0.776		
	PS9	0.715		
	PS10	0.731		
	PS11	0.708		
	PS12	0.658		
	PS13	Deleted		
Required Skills (RS)	RS14	0.779	0.931	0.532
	RS15	0.656		
	RS16	0.766		
	RS17	Deleted		
	RS18	0.730		
	RS19	0.752		
	RS20	0.698		
	RS21	0.703		
	RS22	0.741		
	RS23	0.753		
	RS24	0.770		
	RS25	0.735		
	RS26	Deleted		
	RS27	Deleted		
	RS28	Deleted		
	RS29	0.657		

Key: CR= Composite Reliability; AVE= average variance extracted; PS= Personal Skills; RS: Required Skills

The table above presents the outer loadings for the items belonging to the exogenous variable, which is Leadership Competencies (LC). The results indicated

that some items had deleted because the outer loadings for them were 0.5 and lower (<0.5). This deletion also allows for the values of the CR and AVE that are within the acceptable value to be kept. The items that had deleted from the scale were: PS4, PS13, RS 17, RS26, RS27, and RS28. These items deleted from the scale due to the low loadings. Also, the results from the table above indicated that all the constructs of the LC have high values of AVE. All values were 0.5 and higher, which means that the constructs clarify more than half of the variance of their indicators.

Table 4.18

Results of the Outer Loadings, CR, and AVE for the Organisational Culture (OC)

Constructs	Items	Loading (>0.5)	CR	AVE
Dominant Characteristics (DC)	DC 30	0.830	0.936	0.571
	DC 31	0.795		
	DC 32	0.783		
	DC 33	0.833		
	DC 34	0.764		
	DC 35	0.743		
	DC 36	0.668		
	DC 37	0.688		
	DC 38	0.718		
	DC 39	Deleted		
	DC 40	0.799		
	DC 41	0.668		
Organisational Leadership (OL)	OL 42	0.804	0.938	0.582
	OL43	0.760		
	OL44	0.827		
	OL45	0.745		
	OL46	0.777		
	OL47	0.734		
	OL48	0.677		
	OL49	Deleted		
	OL50	0.659		
	OL51	0.784		
	OL52	0.815		
	OL53	0.789		

Table 4.18 (continued)

Constructs	Items	Loading (>0.5)	CR	AVE
Management of Employees (ME)	ME 54	0.819	0.946	0.614
	ME 55	0.759		
	ME 56	0.742		
	ME 57	0.783		
	ME 58	0.828		
	ME 59	0.795		
	ME 60	0.801		
	ME 61	0.742		
	ME 62	0.697		
	ME 63	0.818		
	ME 64	0.823		
Organisational Glue (OG)	OG 65	0.790	0.939	0.586
	OG 66	0.758		
	OG 67	0.799		
	OG 68	0.808		
	OG 69	0.783		
	OG 70	0.784		
	OG 71	0.767		
	OG 72	0.778		
	OG 73	Deleted		
	OG 74	0.761		
	OG 75	Deleted		
	OG 76	0.633		
	OG 77	0.746		

Table 4.18 (continued)

Constructs	Items	Loading (>0.5)	CR	AVE
Strategic Emphasis (SE)	SE 78	0.818	0.933	0.583
	SE 79	0.785		
	SE 80	0.790		
	SE 81	0.764		
	SE 82	0.763		
	SE 83	0.771		
	SE 84	0.773		
	SE 85	0.739		
	SE 86	0.805		
	SE 87	0.610		
Criteria of Success (CS)	CS 88	0.766	0.947	0.579
	CS 89	0.703		
	CS 90	0.617		
	CS 91	0.714		
	CS 92	0.821		
	CS 93	0.807		
	CS 94	0.828		
	CS 95	0.805		
	CS 96	0.795		
	CS 97	0.798		
	CS 98	0.803		
	CS 99	0.784		
	CS100	0.604		

Key: CR= Composite Reliability; AVE= average variance extracted; DC= Dominant Characteristics; OL= Organisational Leadership; ME= Management of Employees; OG= Organisation Glue; SE= Strategic Emphases; CS= Criteria of Success

Table 4.18 above shows the outer loadings for the items belonging to the mediation variable, which is Organisational Culture (OC). The results presented above

indicated that some of the items were deleted because the outer loadings for them were 0.5 and lower. This deletion also allows for the values of the CR and AVE within the acceptable value to be kept. The items that were deleted from the scale were: DC39, OL49, OG73, and OG75. These items were removed from the scale due to the low loadings. Besides, the results from Table 4.18 above displayed that all the constructs of the OC have high values of AVE. All values were 0.5 and higher, which means that the constructs clarify more than half of the variance of their indicators.

Table 4.19

Results of the Outer Loadings, CR, and AVE for the Students Learning Outcomes

Constructs	Items	Loading (>0.5)	CR	AVE
Student Cognitive Outcome (SC)	SC 101	0.849	0.936	0.678
	SC 102	0.774		
	SC 103	0.840		
	SC 104	0.782		
	SC 105	0.831		
	SC 106	0.818		
	SC 107	0.865		
Student Skill Outcome (SS)	SS 108	0.805	0.943	0.624
	SS 109	0.780		
	SS 110	0.831		
	SS 111	0.796		
	SS 112	0.737		
	SS 113	0.780		
	SS 114	0.770		
	SS 115	0.800		
	SS 116	0.828		
	SS 117	0.764		

Table 4.19 (continued)

Constructs	Items	Loading (>0.5)	CR	AVE
Student Affective Outcome (SA)	SA 118	0.825	0.933	0.664
	SA 119	0.766		
	SA 120	0.837		
	SA 121	0.825		
	SA 122	0.821		
	SA 123	0.826		
	SA 124	0.803		
Student Academic Performance (SP)	SP 125	0.736	0.872	0.535
	SP 126	0.620		
	SP 127	Deleted		
	SP 128	0.728		
	SP 129	0.832		
	SP 130	0.780		
	SP 131	0.673		

Key: CR= Composite Reliability; AVE= average variance extracted; SC= Students Cognitive; SS= Students Skills; SA= Students Affective; SP= Student Performance

Table 4.19 above shows the outer loadings for the items belonging to the endogenous variable, which is Students Learning Outcomes (SLO). The results presented in the table above indicated that only one item (SP127) had been deleted because the outer loading was <0.5 . This deletion allows for the values of the CR and AVE within the acceptable value to be kept. Clearly, item SP127 was deleted from the scale because of low loadings. Additionally, the results from Table 4.19 above displayed that all the constructs of the SLO have high values of AVE. All values were 0.5 and higher, which means that the constructs clarify more than half of the variance of their indicators.

4.5.4 Discrimination Validity: (Cross-Loading, Fornell-Larcker Criterion, and HTMT)

Discriminant validity refers to the degree to which a construct is different from other constructs (Hair et al., 2017). Therefore, discriminant validity indicates that construct is a unique and seizure phenomenon not signified by other constructs in the model. There are three measures of discriminant validity which are: Cross-Loading, Fornell-Larcker criterion, and HTMT. The Cross-Loading and Fornell-Larcker criterion allows the researcher to check the discriminant validity.

According to Hair et al. (2017), cross-loading is the first method for assessing the discriminant validity of the indicators. The outer loadings of the indicators of the construct must be larger than any of its cross-loading compared to other constructs. Hence, the researcher carried out the measure of cross-loading and found that the cross-loading meets the requirements because the outer loadings of the indicators of the construct are greater than all its cross-loading with other constructs. APPENDIX J shows the outer loadings of the indicators. The bold values of the table that displays in APPENDIX J present the outer loadings of the indicators of the constructs. Therefore, discriminant validity can be established in the measurement model under cross-loading.

The second approach of assessing discriminant validity is based on Fornell-Larcker's criterion. This approach compares the square root of the values of the AVE with its correlation of the latent variables (other constructs in the model) (Hair et al., 2017). The square root of the AVE values of every construct must be higher than its highest connection with any other construct. The results of Fornell-Larcker criterion in this study illustrated that the square root of the AVE values of every construct is not larger than its highest correlation with other constructs.

Table 4.20

The Results of Fornell-Larcker criterion

	CS	DC	ME	OG	OL	PS	RS	SA	SC	SE	SP	SS
CS	0.767											
DC	0.862	0.731										
ME	0.894	0.930	0.761									
OG	0.885	0.881	0.889	0.733								
OL	0.888	0.934	0.921	0.851	0.739							
PS	0.693	0.720	0.718	0.682	0.774	0.691						
RS	0.720	0.738	0.719	0.682	0.775	0.913	0.697					
SA	0.812	0.796	0.829	0.744	0.808	0.627	0.620	0.784				
SC	0.776	0.752	0.779	0.700	0.753	0.584	0.589	0.891	0.790			
SE	0.947	0.866	0.917	0.859	0.888	0.678	0.674	0.812	0.785	0.760		
SP	0.719	0.745	0.748	0.717	0.739	0.680	0.638	0.740	0.767	0.734	0.676	
SS	0.802	0.783	0.819	0.740	0.788	0.628	0.613	0.948	0.919	0.820	0.780	0.770

Key: PS= Personal Skills; RS: Required Skills; DC= Dominant Characteristics; OL= Organisational Leadership; ME= Management of Employees; OG= Organisation Glue; SE= Strategic Emphasis; CS= Criteria of Success; SC= Students Cognitive; SS= Students Skills; SA= Students Affective; SP= Student Performance

As shown in Table 4.20 above the values were smaller than its highest relationship with any other construct. Hence, the discriminant validity in the measurement model cannot be established under the Fornell-Larcker criterion (Hair et al., 2017; Henseler et al., 2015).

Clearly, the results of this study showed that the discriminant validity is established under cross-loading, as it cannot be established under Fornell-Larcker criterion. Because discriminant validity cannot be established under Fornell-Larcker criterion, the researcher cannot be confident that the findings can confirm whether the hypothesised structural are acceptable and real or they are just statistical inconsistency results (Henseler et al., 2015). Hence, the researcher should use a new method to assess the discriminant validity of the model.

Based on the discussion above, the researcher utilised the third measure which is Heterotrait-monotrait ratio (HTMT) to assess the discriminant validity (Henseler et al., 2015). The HTMT is a new standard to measure discriminant validity in variance based SEM (Henseler et al., 2015). The HTMT outperforms the classic methods of assessing the discriminant validity because both Fornell-Larcker criterion and cross-loading are unable to find out the lack of discriminant validity. The HTMT value of 0.85 is considered the most conservative criterion and it can point a problem to discriminant validity in the research. The HTMT .90 and HTMT inferences show that discriminant validity is established (Henseler et al., 2015). The HTMT value which is close to 1 refers to a lack of discriminant validity. Moreover, the value of HTMT, which is smaller than 1 indicates that the correlation between the two constructs must be different (Alarcón et al., 2015).

Some researchers emphasised that there are two recommended values of threshold, which are: the value of 0.85 (Kline, 2016) and the value of 0.90 (Teo, Srivastava, & Jiang, 2008). The more conservative criterion recommends a value of 0.85, but the more liberal criterion recommends a value of 0.90. This means that the value of HTMT below the threshold value of 0.85 or 0.90 will illustrate the discriminant validity (Henseler et al., 2015). The criterion of HTMT norms between 0 and 1 in PLS-SEM. When the value of HTMT is smaller than 1 it means the correlation between the constructs differs (Alarcón et al., 2015). Clearly, discriminant validity has a problem based on the specific value of HTMT. This problem accrued when the value of HTMT is higher than 1 (Alarcón et al., 2015; Henseler et al., 2015). Table 4.21 presents the results of the HTMT values.

Table 4.21

Results of the Values of HTMT

	CS	DC	ME	OG	OL	PS	RS	SA	SC	SE	SP	SS
CS												
DC	0.863											
ME	0.893	0.931										
OG	0.885	0.883	0.889									
OL	0.889	0.934	0.923	0.853								
PS	0.692	0.721	0.718	0.683	0.776							
RS	0.718	0.738	0.718	0.682	0.777	0.912						
SA	0.813	0.796	0.831	0.747	0.810	0.627	0.619					
SC	0.777	0.750	0.779	0.700	0.754	0.582	0.586	0.891				
SE	0.949	0.866	0.917	0.860	0.888	0.677	0.672	0.811	0.784			
SP	0.710	0.737	0.741	0.712	0.732	0.671	0.630	0.728	0.754	0.724		
SS	0.802	0.782	0.819	0.741	0.789	0.627	0.611	0.949	0.919	0.819	0.768	

Key: PS= Personal Skills; RS: Required Skills; DC= Dominant Characteristics; OL= Organisational Leadership; ME= Management of Employees; OG= Organisation Glue; SE= Strategic Emphasis; CS= Criteria of Success; SC= Students Cognitive; SS= Students Skills; SA= Students Affective; SP= Student Performance

Based on the discussion and Table 4.21 above, the values of the HTMT were smaller than 1, and most of them were lower than the recommended values of threshold. Therefore, the results stated that the discriminant validity is established under the case of HTMT. After conducting the assessment of the measurement model as recommended by Hair et al. (2017), the following sections included more details regarding the assessment of the structural model.

4.6 Structural Model Assessment

Another process in PLS-SEM analysis is an assessment of the structural model. It describes the relationship between the latent variables (constructs) in the model (Hair et al., 2017). There is a specific procedure for conducting the assessment of the structural model. This procedure comprises six different steps: (1) structural model assessment for collinearity issues, (2) measures the significance and relevance of the relationship of structural model, (3) calculates the level of R^2 , (4) assesses the effect sizes f^2 , (5) evaluates the predictive relevance Q^2 , and (6) measures the q^2 effect size.

4.6.1 Assessment of Collinearity (VIF Values)

The first step in assessing the structural model is assessing the Collinearity. The researcher in this study used Variance Inflation Factor (VIF) to assess the collinearity of the constructs. This assessment conducted to check if there are critical levels of collinearity between every set of the predictor variables. Hair et al. (2017) stated that each construct should have a VIF value below (5.). Any threshold value higher than (5.) means there is an issue and refers to collinearity problems. In order to solve any collinearity problems (VIF values above 5.) the researcher should eliminate the constructs, or merge the predictors to one single construct, or create constructs with a higher- order. Based on that, the researcher checked the VIF's values and presented them in Table 4.22 below.

Table 4.22

Values of VIF

Constructs	VIF
PS	1.000
RS	1.000
DC	1.000
OL	1.000
ME	1.000
OG	1.000
SE	1.000
CS	1.000
SC	1.000
SS	1.000
SA	1.000
SP	1.000

Key: PS= Personal Skills; RS: Required Skills; DC= Dominant Characteristics; OL= Organisational Leadership; ME= Management of Employees; OG= Organisation Glue; SE= Strategic Emphasis; CS= Criteria of Success; SC= Students Cognitive; SS= Students Skills; SA= Students Affective; SP= Student Performance

The results from the Table above found that all values of VIF were below 5. This means that there is no collinearity problem because collinearity does not reach critical levels in any construct in the model. Therefore, the values of VIF in the current study were acceptable.

4.6.2 Path Coefficients of Structural Model

The second step of assessing the structural model is to measure the significance and relevance of the relationship (path coefficient β) of the structural model. This step

refers to the hypothesised relationships between the constructs in the model. Hair et al. (2017) pointed out that the standardised values of the path coefficients are between -1 and +1. Although the values of path coefficients can be smaller or larger, generally fall between -1 and +1. The values of path coefficients that is close to +1 indicate a strong positive relationship between the constructs, which is considered statistically significant. The values of path coefficients that are close to -1 refer to the strong negative relationships between the constructs, which are considered statistically significant. The values that are close to 0 represent a weak relationship between the constructs. The values that are very low and close to 0 commonly considered not significantly different from 0 (non-significant). The results of path coefficients between the constructs explained in detail in the following sections.

4.6.2.1 Indirect Relationship between Variables

The researcher tested the results of the structural model for the direct and indirect relationship between variables using the path coefficient (β). The researcher found that there is an indirect relationship between the tested variables. Figure 4.4 presents the model for the indirect relationship between variables.

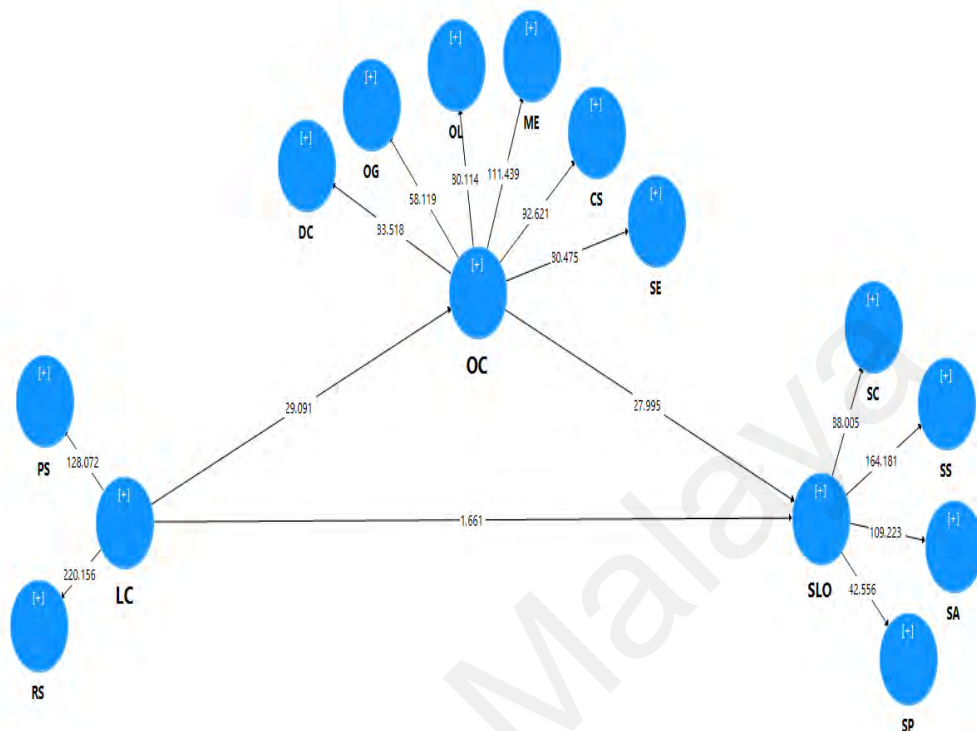


Figure 4.4. The Indirect Relationship Between Variables

There is an indirect relationship between leadership competencies (LC) and students learning outcomes (SLO) through the organisational culture (OC). Table 4.23 presents the indirect relationship between variables.

Table 4.23

Structural Model Results: Indirect Relationship

Indirect Relationship between Variables	PATH COEFFICIENT) (β)
LC -> OC -> SLO	0.646

Key: LC= Leadership Competencies; OC= Organisational Culture, SLO= Students Learning Outcomes

The table above presents the results of the indirect relationship between variables. The results indicated that the (LC) has a positive and significant indirect relationship with (SLO) with a standard coefficient (β) of 0.646. It can be concluded that there is a positive and significant indirect relationship between (LC) and (SLO) through the (OC). In other words, Organisational Culture (OC) has been able to mediate the relationship between Leadership Competencies (LC) and Students Learning Outcomes (SLO).

4.6.2.2. Direct Relationship between Variables

The researcher tested the results of the structural model for the direct and indirect relationship between variables using the path coefficient (β). Based on the results of the path coefficient (β), the researcher found that there is a direct relationship between the tested variables. Figure 4.5 shows the direct relationship between variables.

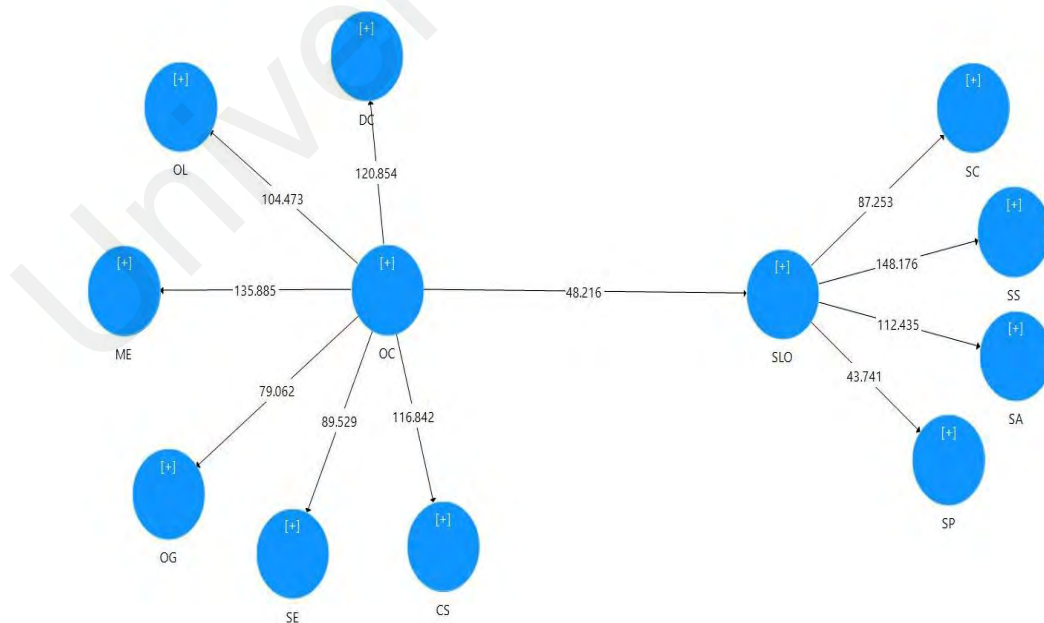


Figure 4.5. The Direct Relationship Between Variables

The results of path coefficients for the direct relationship of the structural model presented in Table 4.24.

Table 4.24

Structural Model Results: Direct Relationship

Direct Relationship between Variables	PATH COEFFICIENT (β)
OC -> SLO	0.839

Key: OC= Organisational Culture, SLO= Students Learning Outcomes

The results of the path coefficients for the direct relationship of the structural model were presented in Table 4.24. The results from the table above indicated that (OC) has a positive and significant direct relationship with (SLO) with a standard coefficient (β) of 0.839. The positive coefficient illustrates that a higher value of organisational culture will produce a higher value of students learning outcomes.

4.6.3 Coefficient of Determination (Value of R^2)

The third step in evaluating the structural model is by calculating the level of R^2 (Coefficient of Determination). This coefficient is a measure of the predictive power of the model. It is the squared relationship between actual and predicted values. It is calculated as a squared link between a particular endogenous constructs' value (predicted and actual values). It also implies the combined effects of the exogenous latent variables on the endogenous latent variables. In other words, it refers to the amount of variance in the endogenous constructs described by exogenous constructs which were associated with it. It is considered a measure of the predictive power of an in-sample.

According to Hair et al. (2017), the value of R^2 ranges from 0 to 1. The higher levels of R^2 refers to the higher levels of predictive accuracy. It is hard to clarify the rule of thumb for the acceptable value of R^2 because this value depends on the research discipline and the complexity of the model. This value differs from one research to another and from one discipline to another. For instance, some researchers considered the value of 0.75 as substantial, 0.50 moderate, and 0.25 weak (Hair et al., 2017; Henseler et al., 2015). Cohen (1988) considered R^2 value as substantial if the value is above 0.26, and moderate if the value is 0.13, and 0.02 deemed to be weak. Chin (1998) considered R^2 value as substantial if this value is higher than 0.65, and moderate if the value is 0.33, and 0.19 considered weak.

However, Hair et al. (2013) suggested that R^2 value is substantial if the value is above 0.75 with an acceptable power higher than 0.25, and the moderate value is 0.50, and 0.25 is considered a weak value. Urbach and Ahlemann (2010) pointed out that the R^2 value of the model must be high enough to reach a minimum level of explanatory power. Table 4.25 presents the results of R^2 .

Table 4.25

Results of R^2 Values

Exogenous Construct	Endogenous Construct	R^2	The level of R^2 value described as		
			Cohen (1988)	Chin (1998)	Hair et al. (2013)/ Hair et al. (2017)
LC	OC	0.591	substantial	Moderate	Moderate
LC, OC	SLO	0.738	substantial	substantial	Moderate

Key: LC= Leadership competencies; OC= Organisational Culture, SLO= Students Learning Outcomes

The results from the table above indicated that all the values of R^2 were high enough for the model. These high value of R^2 have reached an acceptable level of explanatory power. As the levels of R^2 is high enough, therefore, this conclusion indicated the higher levels of predictive accuracy of the current model.

4.6.4 Assess the Effect Sizes f^2

The fourth step in assessing the structural model is by calculating the effect size f^2 . The change in the value of R^2 when a particular construct of exogenous removed from the model can be applied to evaluate whether the deleted construct has an essential effect on the endogenous constructs. This evaluation refers to the effect size f^2 . The effect size f^2 discusses whether the exogenous latent construct has an impact on the endogenous latent construct. This impact can be small, medium, and large. According to Cohen (1988) and Hair et al. (2017), the f^2 value of 0.02 represents a small effect of the exogenous latent variables. The f^2 value of 0.15 refers to a medium effect, and f^2 value of 0.35 and above represents a large effect. The f^2 can be calculated as:

$$f^2 = \frac{R^2_{\text{included}} - R^2_{\text{excluded}}}{1 - R^2_{\text{included}}}$$

Table 4.26

The Results f^2 Values

	Effect Sizes f^2	Effect
LC ->SLO	0.003	No effect
OC -> SLO	0.930	Large effect

Key: LC= Leadership competencies; OC= Organisational Culture, SLO= Students Learning Outcomes

Table 4.26 above presents the value of effect size f^2 . It indicated that the exogenous latent variable (LC) has no effect size of 0.003 on the endogenous latent variable (SLO). In contrast, the results also indicated that the exogenous latent variable (OC) has a large effect size of 0.930 on the endogenous latent variable (SLO).

4.6.5 Evaluate Blindfolding and the Predictive Relevance Q^2

The fifth step in assessing the structural model is by assessing the predictive relevance Q^2 and by blindfolding. Besides evaluating the level of R^2 values that assesses the predictive accuracy, the researcher must determine the Stone-Geisser's Q^2 value. The value of Q^2 is considered as an indicator of the predictive relevance of the model. When the path model of PLS displays predictive relevance, it truly predicts data that not utilised in the model assessment. Hair et al. (2017) pointed out that the values of Q^2 which are greater than zero for a particular endogenous latent variable refer to the predictive relevance of the path model for a specific dependent construct.

The Q^2 value was attained by utilising the blindfolding technique. Blindfolding is a reuse procedure that deletes every d th data point in the indicators of the endogenous construct and assesses the parameters with the remaining data. The deleted data points are considered as missing values and treated according to when the researcher is running the PLS-SEM. It only applied in endogenous constructs that use the reflective measurement model. Clearly, predictive relevance utilised blindfolding to gain a redundancy measure of cross-validated for every endogenous construct in the model. According to Hair et al. (2017) the Q^2 value of 0.02 specifies that the exogenous construct has a small predictive relevance for a particular endogenous construct. Nevertheless, the value of 0.15 refers to the medium predictive relevance, and 0.35 indicates a large predictive relevance. Table 4.27 shows the results of Q^2 values.

Table 4.27

Results of the Predictive Relevance Q^2

Exogenous Construct	Endogenous Construct	SSO	SSE	Q^2 (=1-SSE/SSO)	Effect
LC	OC	33,232.00	24,510.96	0.262	Medium
LC	SLO	14,880.00	9,781.35	0.343	Medium

Key: LC= Leadership Competencies; OC= Organisational Culture; SLO= Students Learning Outcomes

The results of the table above indicated that the Q^2 values were higher than zero. These values (greater than 0) showed that there is a predictive relevance of this model on the dependent (endogenous) construct. It is also clear from the table above that the Q^2 values of OC (0.26) and SLO (0.34) indicated that the exogenous construct has a medium predictive relevance for endogenous one.

4.6.6 Evaluate the q^2 Effect Size

Measuring the q^2 effect sizes is the final step of assessing the structural model. The q^2 effect sizes provide extra insights regarding the quality of the estimation of the PLS path model. The researcher can assess the value of Q^2 by using the blindfolding procedure, which represents an evaluation of how the PLS path model can predict the observed values. Like to the method of f^2 effect size for evaluating the values of R^2 , the relative effect of the predictive relevance can be compared by the measure's mean to the q^2 effect size. The q^2 can be defined using the following formula:

$$q^2 = Q^2_{\text{included}} - Q^2_{\text{excluded}} / 1 - Q^2_{\text{included}}$$

The q^2 effect size allows for estimating the contributions of an exogenous construct to the Q^2 values of an endogenous latent variable. The q^2 values of 0.02

means that an exogenous construct has a small predictive relevance for a particular endogenous construct (Hair et al., 2017). The q^2 values of 0.15 means that an exogenous construct has a medium predictive relevance for a specific endogenous construct. The q^2 values of 0.35 refer to an exogenous construct that has a large predictive relevance for a particular endogenous construct (Hair et al., 2017). Table 4.28 presents the results of the q^2 values.

Table 4.28

Results of the q^2 values

Exogenous Construct	Endogenous Construct	Q^2 included	Q^2 excluded	$q^2 = \frac{Q^2_{\text{included}} - Q^2_{\text{excluded}}}{1 - Q^2_{\text{included}}}$	Effect
LC	SLO	0.319	0.204	0.168	Medium
OC	SLO	0.319	0.242	0.113	Small

Key: LC= Leadership Competencies; OC= Organisational Culture; SLO= Students Learning Outcomes

The Table above shows that the results of the q^2 values regarding the LC ->SLO indicated that the exogenous LC has a medium predictive relevance for the endogenous SLO construct. The q^2 values regarding the OC ->SLO indicated that the exogenous OC construct has a small predictive relevance for the endogenous SLO construct. After a deep explanation of the assessment of measurement and structural models, the following sections included more details regarding the mediation analysis.

4.7 The Assessment of Mediation Analysis (Hypotheses Testing)

The structural model comprises both direct and indirect hypothesised relationships. The researcher runs the PLS algorithm to test both the direct and indirect effects of exogenous on the endogenous. It also runs to test the mediation hypothesis. Running the PLS algorithm because the current study focused on assessing the mediation and indirect effect between variables. According to Hayes (2018), to test the intervening variable effects, bootstrapping is considered more effective tool compare to the Sobel technique. The bootstrapping approach is a nonparametric procedure that applied to assess the indirect effect between variables. It also used to test the significance of the mediating hypotheses (Hayes, 2018). Therefore, the most suitable approach that used for the current analysis was bootstrapping. Running the procedure of 500 bootstrapping concludes the significance level of the hypothesised relationships.

Moreover, the results of the structural model have used to test the research hypotheses. The assessment regarding hypotheses testing is based on path coefficients (β), t-value, p-value, with a significance level of 5% (0.05). This study provides a basis for studying the effect of leadership competencies on students learning outcomes by organisational culture as a mediator. Further, this research has proposed three main hypotheses to test the effect and relationship between research variables.

The current study used PLS-SEM as a tool for testing hypotheses and conducting the mediation analysis (Nitzl, Roldan, & Cepeda, 2016). To test the mediation model, once should consider Baron and Kenny's (1986) approach that focused on testing the direct effect, indirect effect, and the total effect separately (Nitzl et al., 2016). The mediating effect considers as a third variable that plays a mediate role between the independent and dependent variables. Figure 4.6 displays the

mediation model that showed that the independent variable (X) affects the dependent variable (Y) via the third variable (M), which called the mediating variable (mediator).

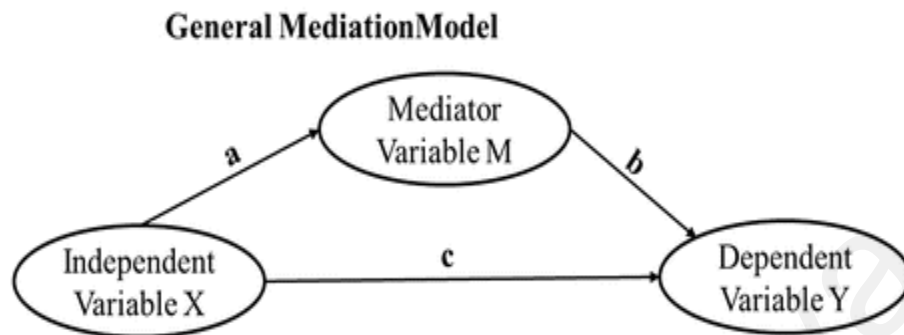


Figure 4.6. Mediation Model (Source: Baron & Kenny, 1986, P. 1176; Nitzl et al., 2016)

As stated by Baron and Kenny (1986), formulating mediation hypothesis focused on how variable (X) affect variable (Y) by intervening variable (M). The current study focused on testing the mediation hypothesis. Therefore, Baron and Kenny's (1986) approach is the base of conducting the present analysis. For testing the mediation, Baron and Kenny (1986) mentioned that Judd and Kenny (1981) recommended researchers to estimate a series of regression models. First, the researcher should regress the mediator variable on the independent variable. Then, the researchers must regress the dependent variable on the independent one. Finally, the researchers have to regress the dependent variable on both the independent and the mediator variables. These three steps of the regression equations offer the linkages test of the mediational model.

Besides, the researchers have to follow specific conditions to establish a mediational model (Baron & Kenny, 1986). In the first equation, the independent

variable (X) must affect the mediator (M). In the second equation, the independent variable (X) have to affect the dependent variable (Y). In the third equation, the mediator (M) have to affect also the dependent variable (Y). The effect of (X) on (Y) should be less in the third equation compare to the effect in the second equation. That happened if these three conditions hold in the predicted direction. According to Baron and Kenny (1986), the perfect mediation exists when the mediator in the model is controlled and, under this case, the independent variable does not affect.

Furthermore, the researchers can follow a decision tree that used to clarify the type of mediation analysis (Nitzl et al., 2016). It contains 2 different steps that guide the researcher to determine whether the type of mediation is full mediation, partial mediation or no mediation. Figure 4.7 shows the procedure of mediator analysis in PLS-SEM (decision tree) that presented by Zhao, Lynch, and Chen (2010).

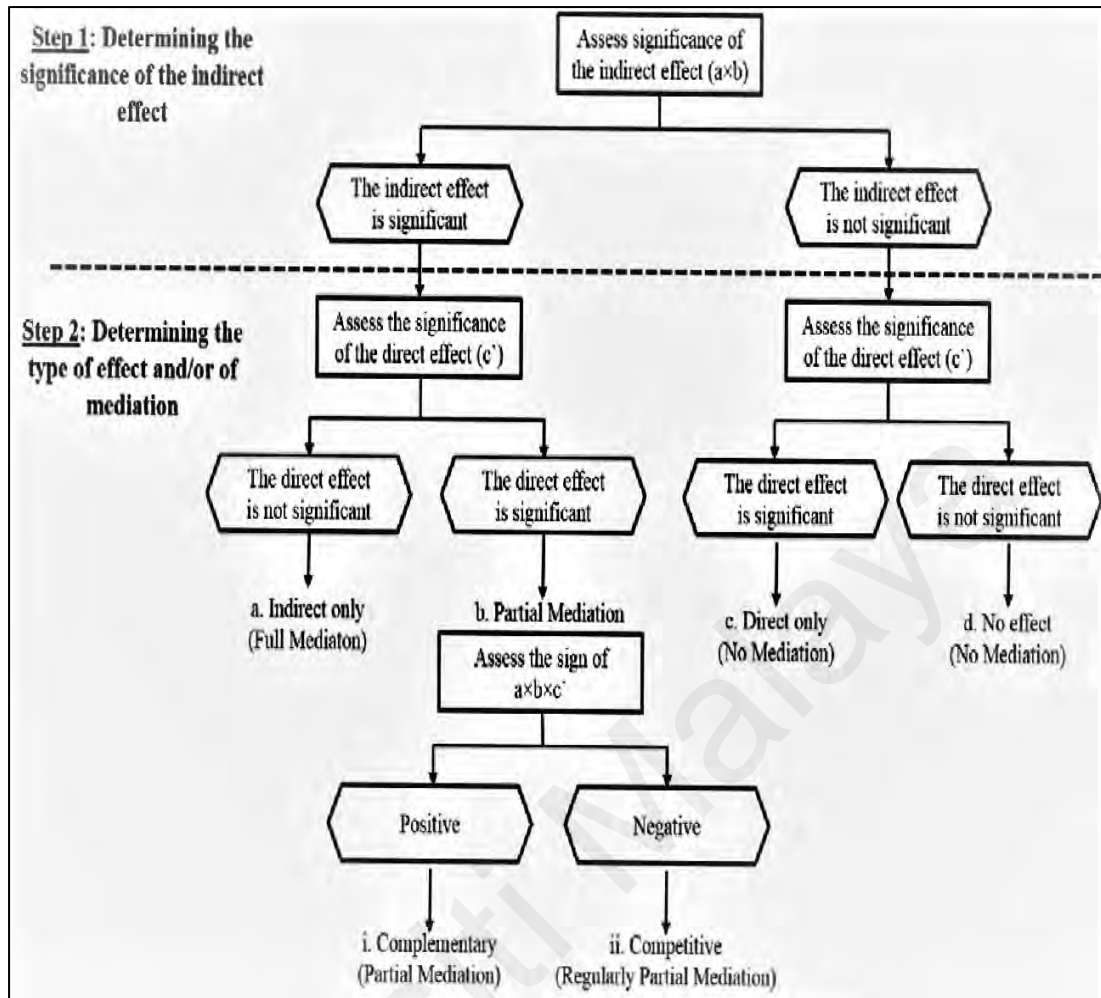


Figure 4.7. The Procedure of Mediator Analysis in PLS-SEM (Decision Tree)
(Source: Zhao et al., 2010).

Furthermore, the researchers have to consider several important points when they test the mediating effect by PLS-SEM (Preacher & Hayes, 2008; Zhao et al., 2010). First, they must test the indirect effect ($a \times b$), which allow them to get all information regarding the mediating test. Second, the size of the mediation can determine by testing the strength of the indirect effect ($a \times b$). Third, the significance of the indirect effect ($a \times b$) can be tested using bootstrapping (see Figure 4.6) (Nitzl et al., 2016). According to Nitzl et al. (2016), researchers must apply the bootstrap technique to assess the significance of the indirect effect ($a \times b$) between variables. Therefore, based on the decision tree shown in Figure 4.7 above, the bootstrapping

applied to test the significance of the indirect effect ($a \times b$). The indirect effect ($a \times b$) has two paths: from the independent to mediator (path a), and from the mediator to dependent (path b). Thus, the indirect effect tested and presented in the following sections. It has been tested based on the figures and Baron and Kenny's (1986) approach in the abovementioned discussion. The following sections included more details regarding the mediator analysis and the three essential conditions mentioned by Baron and Kenny's (1986).

4.7.1 Condition 1: The Effect of the Independent Variable on Mediation (Path A)

Based on Nitzl et al. (2016) and Baron and Kenny's (1986) approach, the following analysis stressed on the effect of the independent variable (LC) on mediation (OC) (path a). Figure 4.8 below shows the model assessment for the effect of leadership competencies (LC) on organisational culture (OC).

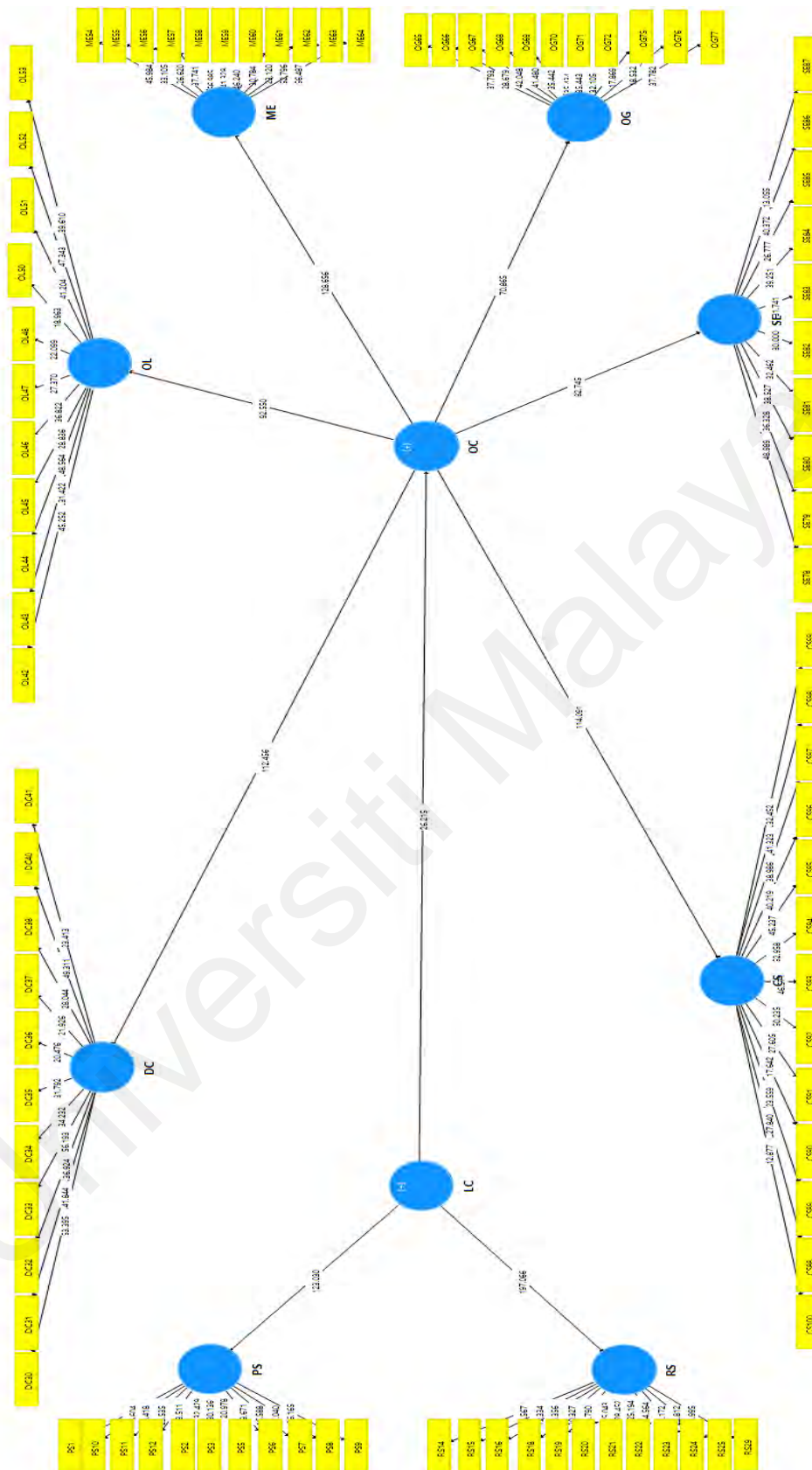


Figure 4.8. The Assessment for the Effect of Independent Variable on Mediation

Table 4.29 below shows the results of bootstrapping for condition 1 (path a). The results indicated that the effect of LC on OC is significant ($\beta = 0.762$; $t = 26.215$; $p = 0.00$).

Table 4. 29

Bootstrapping Results of the Effect of LC on OC (Path A)

	Standardised	Sample	SD	T –	R²	P-
	regression	mean		Value		Value
	weight	(M)		(>1.96)		(<0.0
	(β)					5)
LC ->						
OC	0.762	0.761	0.029	26.215	0.591	0.00*

Note. Significant Level= * $p < 0.05$

Key: LC= Leadership Competencies; OC= Organisational Culture

4.7.2 Condition 2: The Effect of Independent Variable on the Dependent Variable

The direct effect of the independent variable (LC) on the dependent variable (SLO) has tested as suggested by Baron and Kenny (1986) and Nitzl et al. (2016). Figure 4.9 below shows the model assessment for the direct effect of LC as an independent variable on the dependent variable (SLO).

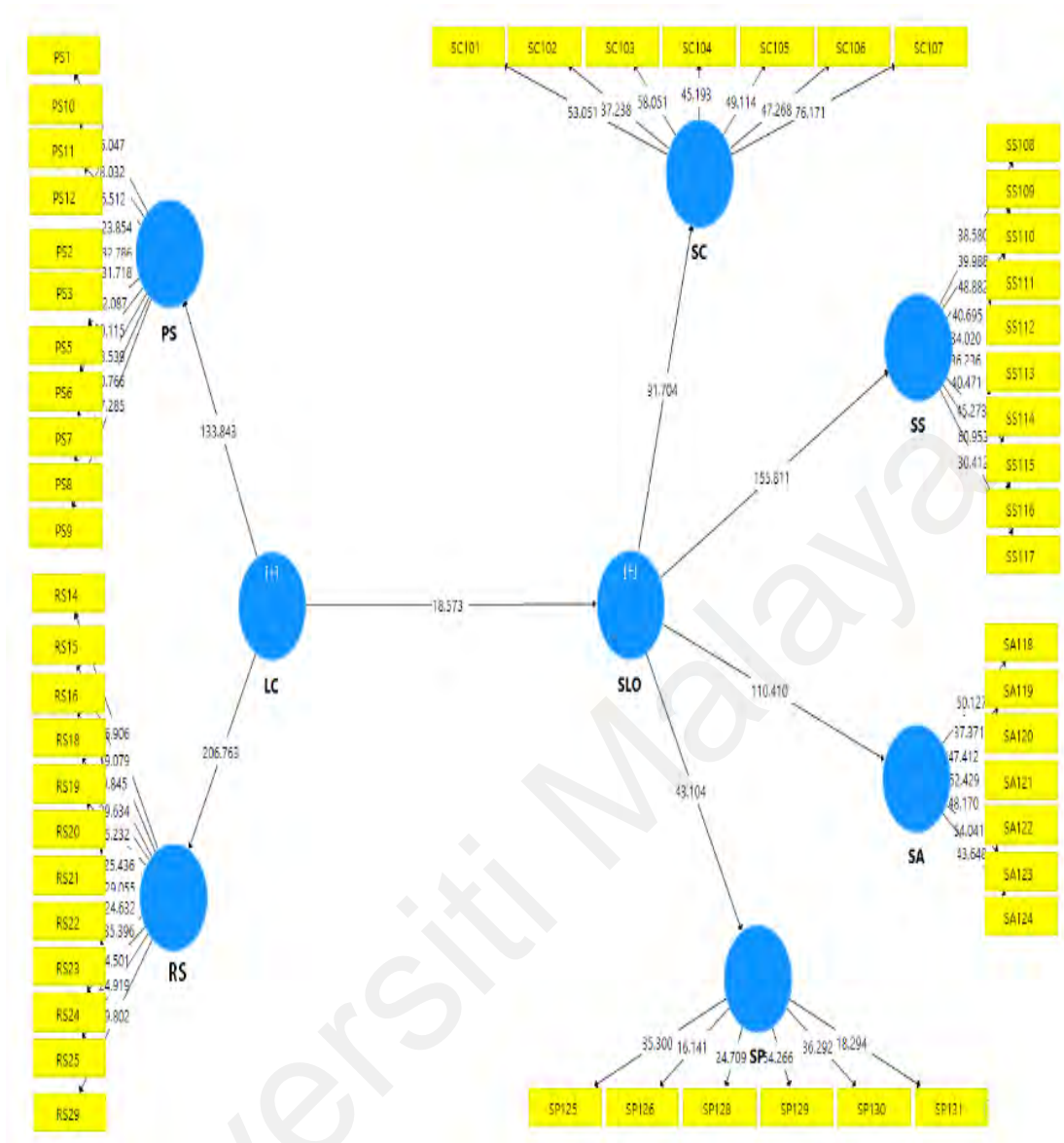


Figure 4.9. The Assessment of the Direct Effect of the Independent Variable on the Dependent Variable

Table 4.30 also shows the results of bootstrapping for condition 2 (the effect of LC on SLO). The results indicated that the effect of LC on SLO is significant ($\beta = 0.663$; $t = 18.573$; $p = 0.00$).

Table 4.30

Bootstrapping Results of the Effect of LC on SLO

	Standardised regression weight (β)	Sample mean (M)	SD	T – Value (>1.96)	R²	P- Value (<0.05)
LC -> SLO	0.663	0.662	0.036	18.573	0.738	0.00*

Note. Significant Level= * p <0.05

Key: LC= Leadership Competencies; SLO= Students Learning Outcomes

4.7.3 Condition 3: The Effect of Mediation on the Dependent Variable

(Path B)

The condition 3 also tested (Baron & Kenny, 1986; Nitzl et al., 2016). Figure 4.10 below displays the model assessment for the direct effect of (OC) as a mediator on the dependent variable (SLO).

Table 4.31

Bootstrapping Results of The Effect of OC on SLO (Path b)

	Standardised regression weight (β)	Sample mean (M)	SD	T – Value (>1.96)	R²	P- Value (<0.05)
OC -> SLO	0.839	0.839	0.02	42.471	0.738	0.00*

Note. Significant Level= * $p < 0.05$

Key: OC= Organisational Culture, SLO= Students Learning Outcomes

Based on Figure 4.7 above (decision tree), the findings of step 1 indicated that the indirect effect ($a \times b$) is significant. Hence, the researcher must follow the second step that focused on assessing the direct effect (c) (see figure 4.6 and 4.7). The following section presented the results of path c.

4.7.4 The Effect of the Independent Variable on the Dependent Variable Via Mediation (path c)

The effect of the independent variable (LC) on the dependent variable (SLO) via mediator (OC) also tested (path c) to determine the type of mediation and effect (Nitzl et al., 2016). Figure 4.11 below shows the model assessment for the effect of (LC) on the (SLO) via mediation (OC).

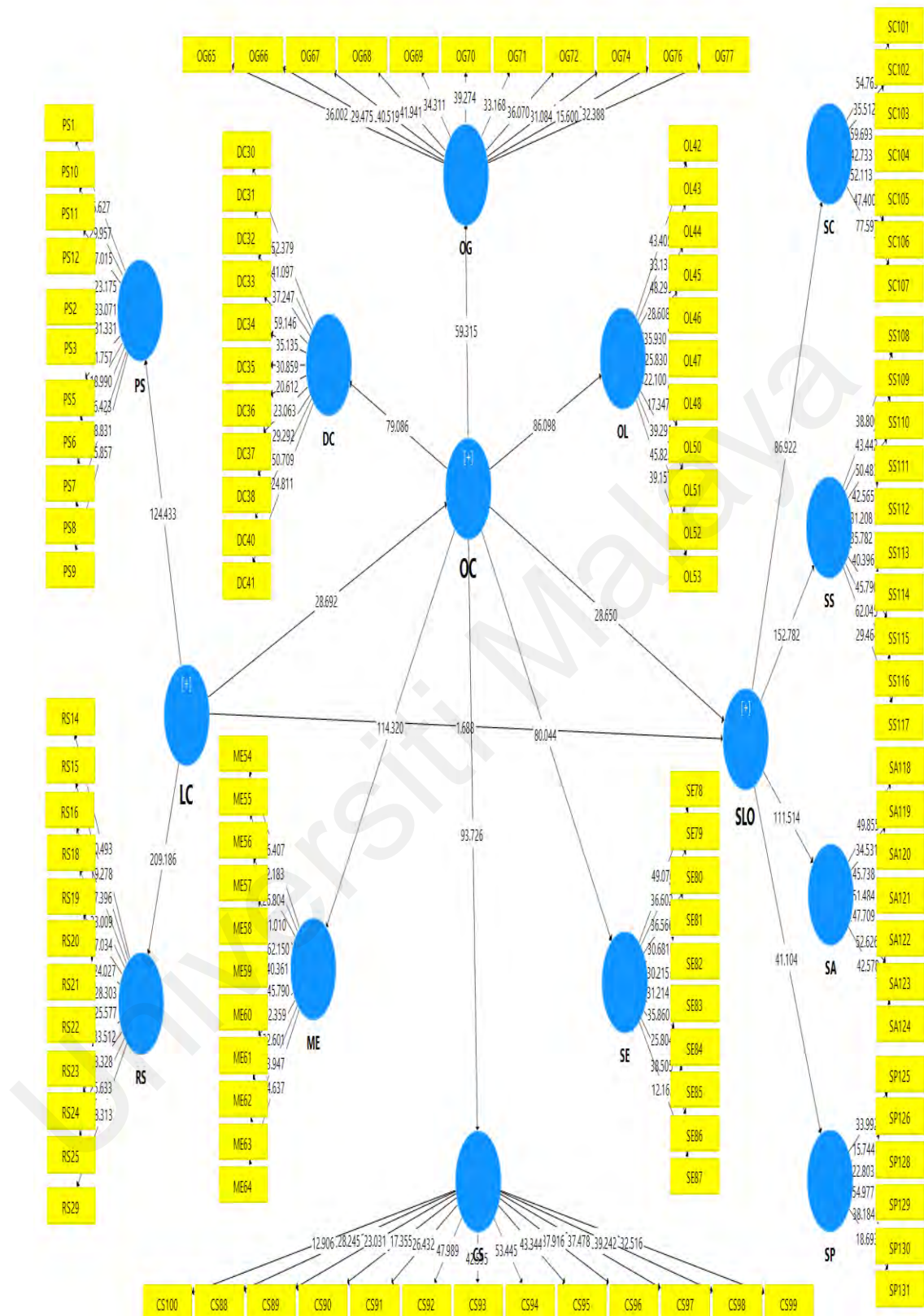


Figure 4.11. The Assessment of Mediation Analysis (Hypotheses Testing)

Table 4.32 below shows the results of bootstrapping for determining the type of effect (path c). The findings indicated that the effect of LC on SLO is not significant ($\beta = -0.078$; $t = 1.649$; $p = 0.1$). This finding referred to full mediation and indirect effect between LC and SLO (see figure 4.7).

Table 4.32

Bootstrapping Results of The Effect of LC on SLO (Path C)

	Standardised regression weight (β)	Sample mean (M)	SD	T – Value (>1.96)	R ²	P- Value (<0.05)
LC ->						
SLO	-0.078	-0.076	0.047	1.649	0.738	0.1*

Note. Significant Level= * $p < 0.05$

Key: LC= Leadership Competencies; SLO= Students Learning Outcomes

The full mediation occurs when the effect (path c) is not significant, and the indirect effect ($a \times b$) is significant. Therefore, the findings from the mediation analysis indicated that the effect of LC on SLO existed via OC as a mediator.

4.7.5 Findings of Hypotheses Testing

The results of the structural model have used to test the research hypotheses. The assessment regarding hypotheses testing is based on path coefficients (β), t-value, p-value, with a significance level of 5% (0.05). According to Hair et al. (2017), the values of t for the two-tailed test are 1.65 with a significant level of 10%. It considered 1.96 with a significance level of 5% and 2.57 with a significance level of 1%. For p-value, Hair et al. (2017) pointed out that p-value should be lower than 0.10 with a significance level of 10%, or 0.05 with a significance level of 5%, or 0.01 with a

significance level of 1%. However, Hair et al. (2017) suggested that the researcher should generally accept a significance level of 5%.

Based on the discussion above, the researcher in this present study assumed a 5% significance level. The results were tested based on (t - value > 1.96 , p -value < 0.05). The null hypotheses were tested based on the abovementioned values (Fraenkel et al., 2015; Hair et al., 2014). If the p -value is equal or less than 0.05, the researcher must reject the null hypothesis and accept an alternative one (Fraenkel et al., 2015; Hair et al., 2014). In contrast, if the p -value is greater than the significant level of 0.05, the researcher must keep and accept the null hypothesis (Fraenkel et al., 2015; Hair et al., 2014). Table 4.33 presents the results of hypotheses testing.

Table 4.33

The Results of Hypotheses Testing

H	Standardised regression weight (β)	Sample Mean (M)	S D	T – Value >1.96	P- Value <0.05	R ²	Decision
H ₀₁	LC -> SLO					0.738	Supported (Accepted)
	No effect of LC on SLO	-0.078	-0.079	0.046	1.688	0.092*	
H ₀₂	OC -> SLO	0.975	0.977	0.034	28.65	0.00*	Not Supported (Rejected)
H ₀₃	LC -> OC -> SLO	0.743	0.746	0.038	19.375	0.00*	Not Supported (Rejected)
	OC has no mediator effect on LC and SLO						

Note. Significant Level= * p <0.05

Key: LC= Leadership Competencies; OC= Organisational Culture, SLO= Students Learning Outcomes

Based on the discussion above and the results of Table 4.33, the results of testing the hypothesised relationships presented in three different sections, testing the

direct hypothesised relationship (direct effect), testing the indirect hypothesised relationship (indirect effect), and the mediation effect of the constructs. The findings of the hypotheses testing presented together with the rest of the research questions as follows:

4.7.5.1 Analysis of Direct and Indirect Effect between Variables

(a) Leadership competencies of academic leaders and students learning outcomes

Findings of Research Question 4: Do the leadership competencies of academic leaders have a direct and significant effect on student learning outcomes in selected Saudi higher education institutions?

To answer this question, the researcher formulated the hypotheses H_{01} , and H_1 . On the other word, the fourth question is in line with the hypotheses H_{01} , and H_1 . The following section included the findings regarding to the RQ4, H_{01} , and H_1 .

H_{01} : There is no direct and significant effect of leadership competencies of academic leaders on students' learning outcomes in Saudi higher education institutions.

H_1 : There is a direct and significant effect of leadership competencies of academic leaders on students' learning outcomes in selected Saudi higher education institutions.

The research findings in Table 4.33 above failed to reject the null hypothesis H_{01} . This indicated that the null hypothesis H_{01} had been accepted based on the values of rejecting and accepted the null hypothesis as suggested by Fraenkel et al. (2015) and Hair et al. (2014). Therefore, the results pointed out that there is no direct and significant effect of (LC) on (SLO) in selected Saudi higher education institutions. The results also showed that there is no direct and significant relationship between leadership competencies (LC) of academic leaders and students learning outcomes

(SLO) in selected Saudi higher education institutions. The results of LC \rightarrow SLO were ($\beta = -0.078$, t-value = 1.688, p-value = 0.092). These results indicated that the β value referred to no direct and significant relationship between LC and SLO. The results also indicated that the t-value is lower than 1.96, while the p-value was greater than 0.05 (not significant), which referred to no direct effect between LC and SLO. Hence, the results supported the null hypothesis H_{01} (Fraenkel et al., 2015; Hair et al., 2014).

However, the alternative hypothesis H_1 has been rejected because the results indicated that there is no direct and significant effect of leadership competencies (LC) of academic leaders on students learning outcomes (SLO) in selected Saudi higher education institutions. Clearly, the findings of the study failed to reject the first null hypothesis H_{01} . Therefore, there is no direct and significant effect of leadership competencies of academic leaders on students learning outcomes in selected Saudi higher education institutions.

The following section included the results of the research question 5, which is in line with the second hypothesis H_{02} , H_2 .

(b) Organisational culture and students learning outcomes

Findings of Research Question 5: Does organisational culture have a direct and significant effect on students' learning outcomes in selected Saudi higher education institutions?

To answer this question, the researcher formulated and tested the following hypotheses:

H_{02} : There is no direct and significant effect of organisational culture on students' learning outcomes in selected Saudi higher education institutions.

H₂: There is a direct and significant effect of organisational culture on students' learning outcomes in selected Saudi higher education institutions.

The research findings in Table 4.33 above failed to accept the null hypothesis H₀₂, because the results showed that there is a direct and significant effect of organisational culture (OC) on students' learning outcomes (SLO) in selected Saudi higher education institutions. The results also showed that there is a direct and significant relationship between (OC) and (SLO) in selected Saudi higher education institutions.

The results of OC → SLO were ($\beta = 0.975$, $t\text{-value} = 28.65$, $p\text{-value} = 0.00$). The results showed that β value was 0.975, which indicates a positive and significant direct relationship between (OC) and (SLO). Besides, the results showed that t -value was greater than 1.96, and the p -value was less than 0.05 (significant), which refers to a direct effect between OC and SLO. According to Fraenkel et al. (2015) and Hair et al. (2014), the researcher must reject the null hypothesis if the significance level is equal to or less than 0.05. Therefore, the null hypothesis H₀₂ has been rejected, and the alternative one (H₂) has been accepted. Thus, the organisational culture (OC) has a direct and significant effect on students' learning outcomes (SLO) in the selected Saudi higher education institutions.

Furthermore, the sixth question is in line with the third hypothesis H₀₃, H₃. Therefore, the following section included the findings regarding RQ6 and H₀₃, H₃.

4.7.5.2 Analysis of Mediation Effect

(a) The mediating effect of organisational culture on the relationship and effect between leadership competencies and students learning outcomes

The current study hypothesised the indirect effect between exogenous (LC) and the endogenous (SLO) via the mediating variable (OC). Therefore, the researcher utilised the bootstrapping technique to assess the mediation effect. Bootstrapping approach provides appropriate and valid evidence about the indirect effect between constructs in any mediation model regardless of the complexity of the model (Hayes, 2018). To test the mediation effect, the researcher must follow the specific values of t- value (>1.96) and p-value (<0.05) that are recommended by Hair et al. (2017) and others. These values refer to the statistically significant indirect effect between constructs via the mediator. The following section discussed the results regarding the mediation hypothesis.

Findings of Research Question 6: Is organisational culture a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and student learning outcomes in selected Saudi higher education institutions?

To answer research question 6, the following hypotheses were formulated and tested.

H₀₃: Organisational culture is not a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions.

H₃: Organisational culture is a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and students' learning outcomes in selected Saudi higher education institutions.

The research results given in Table 4.33 above failed to accept the null hypothesis H₀₃. This indicates that the null hypothesis H₀₃ has been rejected because the results showed that organisational culture (OC) is a mediator that has a significant effect on the leadership competencies (LC) and students' learning outcomes (SLO) in selected Saudi higher education institutions. Moreover, the results illustrated that (OC) is a mediator that mediates the effect of (LC) on (SLO) in selected Saudi higher education institutions. The results also showed that (OC) is a mediator that mediate the relationship between (LC) and (SLO) in selected Saudi higher education institutions.

The results of LC → OC → SLO were ($\beta = 0.743$, t -value = 19.375, p -value = 0.00). The results indicated that β value was 0.743, which refers to the positive and indirect relationship between leadership competencies LC and students learning outcomes SLO through organisational culture OC as a mediator. The results also indicated that t -value was greater than 1.96, while the p -value was less than 0.05 (significant), which refers to an indirect effect between LC and SLO. According to Fraenkel et al. (2015) and Hair et al. (2014), the researcher must reject the null hypothesis if the significant level is equal or less than 0.05. Therefore, the null hypothesis H₀₃ has been rejected, and the alternative one has been accepted. Based on the results, the organisational culture (OC) is a mediator that has a significant effect on leadership competencies (LC) and students' learning outcomes (SLO) in selected Saudi higher education institutions. Undoubtedly, the organisational culture (OC)

mediates the effect between leadership competencies of academic leaders and students learning outcomes.

Finally, the results of the hypotheses testing illustrated that there is no direct and significant effect between leadership competencies of academic leaders (LC) and students learning outcomes (SLO) in selected Saudi higher education institutions. The results also showed that there is no direct and significant relationship between leadership competencies of academic leaders (LC) and students learning outcomes (SLO) in selected Saudi higher education institutions. Furthermore, the results proved that organisational culture (OC) is a mediator that mediates the effect and relationship between leadership competencies of academic leaders and students learning outcomes in selected Saudi higher education institutions. The results failed to reject the null hypothesis in H_{01} and failed to accept the null hypotheses in H_{02} , and H_{03} . Thus, the researcher concluded that organisational culture mediates the effect of leadership competencies of academic leaders on students learning outcomes in selected Saudi higher education institutions.

4.8 Summary of the Chapter

This chapter covered information regarding the quantitative data analysis and research findings. It started by presenting the process of data screening, including missing values, outliers, suspicious responses, and response rate. Then followed by a thorough explanation of the descriptive statistics involving respondents' demographic information and the findings of the research questions. After testing the data normality, this chapter also discussed the results obtained via PLS-SEM, which involved the measurement model assessment, structural model assessment and mediation analysis. The end of the chapter included information regarding the results of hypotheses testing.

The next chapter is Chapter 5. It is the discussion and conclusion. It involved a summary of the findings, discussions of the results, the current contributions of the study, the theoretical and practical implications of the study for academic leaders in higher education and the Ministry of Education, and the recommendations from the current study and for future research. Finally, it included the conclusion of the study.

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CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Introduction

This study aimed to examine the mediating effect of organisational culture on the relationship and effect between academic leadership competencies and student learning outcomes in selected Saudi higher education institutions. This chapter started with a brief summary of the findings in chapter four, then presented a discussion of the findings, the theoretical implications, practical implications, recommendations, suggestions for future research, and finally the conclusion.

The introductory section introduced the main idea of the chapter. The summary of the findings concerned the research questions and hypotheses testing, while the discussion section related the findings of the present study with the findings of the relevant literature discussed earlier in chapter 2. A section on the study's implications followed, outlining the theoretical and practical implications. Besides, this chapter included recommendations and suggestions for further and future research. Finally, the conclusion included a summary of, and conclusion for, the research problem and findings of this study.

The summary, discussion, implications, suggestions, recommendations, and the conclusion are all guided by the following research questions:

1. What is the level of leadership competencies of academic leaders in selected Saudi higher education institutions?
2. What type of organisational culture is being practised currently in selected Saudi higher education institutions?

3. At what level are student learning outcomes in selected Saudi higher education institutions?
4. Do the leadership competencies of academic leaders have a direct and significant effect on student learning outcomes in selected Saudi higher education institutions?
5. Does organisational culture have a direct and significant effect on student learning outcomes in selected Saudi higher education institutions?
6. Is organisational culture a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and student learning outcomes in selected Saudi higher education institutions?

The following sections included more details regarding the summary of the findings, discussion of the findings, implications, recommendations, and conclusion.

5.2 Summary of the Findings

The research question 1 focused on identifying the level of competencies of academic leaders in selected Saudi higher education institutions. The findings related to this question indicated that academic leaders have a very high level of competencies in selected Saudi higher education institutions. The results further point to a very high level of leadership competencies in terms of personal and required skills. The respondents were generally in agreement that the level of leadership competencies was very high. It could, therefore, be said that academic leaders in selected Saudi higher education institutions have a very high level of competencies in terms of their personal and required skills.

The findings of the research question 2 indicated that there is a high level of practice of organisational culture in selected Saudi higher education institutions. To ascertain this result, it was necessary to identify the type of organisational culture being practised currently, so the total mean score of each dimension related to the OCAI was analysed. The findings indicated that the Organisation Glue dimension of the OCAI gave the highest overall mean score. Each dimension of the OCAI had different items representing specific types of culture. Under each dimension, there were four types of culture: (A) clan culture, (B) adhocracy culture, (C) market culture, and (D) hierarchy culture. Accordingly, the findings indicated that the highest mean score belongs to the OGA (Clan Culture); the first type of culture within the dimension of organisational glue. The type of organisational culture being practised currently in selected Saudi higher education institutions is, therefore, Clan Culture.

The findings regarding the research question 3 indicated that the level of student learning outcomes in selected Saudi higher education institutions is high. This result is based on the overall mean score of the respondents. The result indicated that all of the learning outcomes defined by this study, including cognitive learning outcomes, skill-based learning outcomes, affective learning outcomes, and academic performance received a high level of agreement from the respondents. Clearly, then, according to the respondents, the level of student learning outcomes in selected Saudi higher education institutions is high.

To best answer for the research question 4, null and alternative hypotheses were formulated. On testing these hypotheses, the findings indicated that there is no direct and significant effect of the leadership competencies of academic leaders on the outcomes of student learning in the selected Saudi higher education institutions. The results failed to reject the null hypothesis H_{01} . This indicated that the null hypothesis

H₀₁ can be accepted as valid. Clearly, there is no direct and significant effect of the leadership competencies of academic leaders on student learning outcomes in selected Saudi higher education institutions.

As with the previous research question, it was necessary to formulate null and alternative hypotheses to answer the research question 5. The findings related to this question indicated that organisational culture has a direct and significant effect on student learning outcomes in the selected Saudi higher education institutions. The null hypothesis H₀₂ was rejected in favour of the alternative hypothesis H₀₂. The findings, therefore, clearly indicated that organisational culture (OC) has a direct and significant effect on students learning outcomes (SLO) in the selected Saudi higher education institutions.

Similarly, null and alternative hypotheses were formulated to answer research question 6. The findings for this question indicated that organisational culture is a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and student learning outcomes in selected Saudi higher education institutions. The null hypothesis H₀₃ was rejected, and the alternative one H₃ was accepted. Therefore, organisational culture mediates the relationship and the effect of leadership competencies of academic leaders on student learning outcomes.

To sum up, the above section included a summary of the findings related to the research questions and hypotheses. After summarising the findings, the following section included more details regarding the discussion of the findings. The researcher in the following section discussed and related the current findings with the previous findings.

5.3 Discussion of the Findings

This section included more details regarding the discussion of the findings. The researcher linked the findings of the current study with the previous studies and scholars' researches. The discussion section presented the connection between the findings in this study and the earlier literature that have been discussed earlier in chapter 2. For a more detailed discussion of the above findings, each research question is now presented separately and related to previous research in the field.

5.3.1 Level of Leadership Competencies (LC)

Research Question 1: What is the level of leadership competencies of academic leaders in selected Saudi higher education institutions?

To answer this question, descriptive statistics were used, with a focus on the total mean score of the respondents. Based on the interpretation of the overall mean score, the findings indicated that the academic leaders have a very high level of competencies in selected Saudi higher education institutions, as based on an assessment of their personal and required skills. Clark (2016) pointed out that leadership competencies is a term which covers different leadership skills, including personal and required skills. Competent leaders have to gain sufficient skills to allow them to develop their organisations (Clark, 2016). Also, the findings of this study implied that academic leaders have a very high level of personal skills. These personal skills comprise professionalism, self-direction, interpersonal skills, business acumen, problem-solving skills, financial skills, teamwork, flexibility, building desired relationships, managing client relationships, and communication skills.

Besides, the results of this study also confirmed the same for the required skills (Clark, 2016). The required skills of leaders comprise team creation, leading a team,

evaluating different situations accurately and quickly, high skills of project management, implementing policies of employee involvement, training subordinates, teaching assistants, a visioning process, promoting conflict resolution, and leadership abilities.

This finding indicated that the academic leaders have a very high level of leadership competencies in terms of their personal and required skills correlates with the findings of Albutti (2014) which indicated that academic leaders at Hail University in the Kingdom of Saudi Arabia also have a very high degree of leadership competencies. The current finding is also in line with the finding of Shahmandi et al. (2012) that there was no low level of leadership competencies at Malaysian research universities. The study of Shahmandi et al. (2012) also pointed out that the level of leadership competencies was ranked from high to moderate at Malaysian research universities. Although the ranking differed between these two countries, these studies both confirmed a positive level of leadership competencies. Studies at other locations also supported these results. For example, a study by Trettel (2012) also indicated that the level of leadership competencies at the community colleges in Pennsylvania, the USA, were above average. Trettel (2012) assessed the level of leadership competencies by examining the level of leadership skills in the administrators who work at community colleges in Pennsylvania. Although the findings in both locations are not correlated in term of different level of competencies, the current finding and the finding of Trettel (2012) were agreed that there is no low level of academic leadership competencies in higher education.

However, other findings indicated that the level of leadership skills and competencies was low. The findings of a study by Alhmdi (2000) pointed out that academic leaders at Sanaa University in Yemen owned a low level of leadership skills,

in terms of their planning, organising, and their development of the human resources in their departments. This low level of skills refers specifically to a low level of leadership competencies. Further, Alhmdi (2000), Alhojeli (2010) and Spendlove (2007) suggested that it is crucial to give a clear vision, guidelines, or a systemic approach about the responsibilities and roles of academic leaders in the universities. The guidance and systemic approach would provide academic leaders with a clear vision about their leadership role and enhance their skills and competencies.

The findings of the present study are also in contrast with the findings of Pampuri et al. (2015) who conducted research with health professionals and indicated that the level of leadership competencies was low compared to the required level of competencies. Naturally, this is a different sector to higher education, and both sectors have different requirements and different levels of leadership competencies, but the research is worth mentioning here in regards to leadership competencies in general.

As expected, studies which concluded that leaders have a low level of leadership competencies recommended establishing development programs, creating guidelines or a systematic approach which would help leaders to be more competent in their institutions (Alhmdi, 2000; Alhojeli, 2010; Pampuri et al., 2015; Spendlove, 2007). As noted above, however, the current study concluded that academic leaders at the selected Saudi higher education institutions have a very high level of competencies; a finding in line with the results of Albutti (2014), who conducted a similar study at the same environment. Both studies concluded that academic leaders have a very high level of competencies in selected Saudi higher education institutions and these selected institutions already have active development programs, or guidelines, or a systematic approach promoting a very high level of leadership competencies.

From the best of researcher knowledge, there are no other studies concerning the level of leadership competencies conducted in a similar environment with sharing same nature, except the study of Albutti (2014) that conducted on other selected Saudi higher education institutions. Therefore, as mentioned earlier, the findings of the current study also compared with other studies conducted in different countries, such as the Malaysian context, and the USA. All of these studies reached one conclusion and agreed that there is no low level of academic leadership competencies in their selected higher education institutions.

To sum up, the findings related to the first research question indicated that academic leaders have a very high level of leadership competencies. The current findings are in line with the findings of previous studies, including Albutti (2014), Shahmandi et al. (2012), and Trettel (2012). However, the current findings are different from the findings of Alhmdí (2000) and Pampuri et al. (2015). The similarity and differences in the findings are based on the nature of work, environment, and culture. Both Albutti's (2014) study and the current study concur that academic leaders have a very high level of leadership competencies which reflects positive outcomes in these organisations.

5.3.2 The Type of Organisational Culture (OC)

Research Question 2: What type of organisational culture is being practised currently in selected Saudi higher education institutions?

To answer this question, the researcher conducted descriptive statistics and focused on the total mean score of the respondents. An overall mean score would imply a level of agreement from the respondents (Hair et al., 2017). Based on the total mean score, the respondents gave the highest agreement to Clan Culture. Therefore, the finding

indicated that Clan Culture is the type of organisational culture that is being practised currently in the selected Saudi higher education institutions. This finding is in line with the findings of Berkemeyer et al. (2016), Esposito (2009), Fralinger and Olson (2007), and Widjaja et al. (2007) who all stated that the Clan Culture was the type of culture being practised in their institutions. In contrast, the current finding is not correlated with the findings of Alshibani and Alatwi (2011), Mozaffari (2008), and Vasyakin et al. (2016), which indicated that the Hierarchy culture was the type of culture that is practised in their institutes.

The current finding is supported with the finding of Fralinger and Olson (2007) who conducted a survey at Rowan University, New Jersey and concluded that the Clan Culture is the type of culture being practised. Besides, the finding in line with the finding of Esposito (2009) who stated that Clan culture is one of the most dominant cultures in higher education. This type of culture is associated with the creativities, innovations and effectiveness in higher education. The current finding also in line with the finding of Berkemeyer et al. (2016), who assessed the type of culture in 40 schools in German. The findings implied that most of these schools implied that the Clan Culture was the type of culture being practised in their schools and that this culture enhanced creativity and performance.

Although the current study conducted in the higher education sector, the results are also supported by the findings of Widjaja et al. (2007) conducted on middle-sized restaurants in the Netherlands. The findings of that study indicated that the Clan Culture was the type of culture that is being practised. Both sectors are different, but they concluded the same results, agreeing that Clan Culture enhances creativity and performance.

However, the current study's finding in this regard is also in contrast with the findings of Alshibani and Alatwi (2011), which indicated that the Hierarchy Culture was the type of culture being practised at Karbala University in Iraq. Although their findings pointed to a Hierarchy culture, they made the point that the Clan Culture would be more preferable in the future, as it would most suit the Arab culture (Alshibani & Alatwi, 2011). Their study made a strong assertion that Clan Culture is the most suitable culture for higher education institutions in the Arab World.

According to Cameron and Quinn (2011), Clan Culture has specific characteristics that differentiate this culture from other types of culture. The Clan Culture represents the culture in Saudi higher education because of its particular features (Cameron & Quinn, 2011), such as the idea that the academic leader in this culture is the monitor and is considered as a parent figure. Indeed, the factors which are thought to hold the organisation together are loyalty and tradition. The Clan culture is characterised by a high level of commitment. Academic leaders at Saudi higher education who practice the Clan culture will naturally pay more attention to the morale and cohesion of their students. The Clan Culture emphasises the long-term benefit on the development of human resources. It expresses success in terms of the concern for individuals and sensitivity to clients. This type of culture in selected Saudi higher education institutions prioritises teamwork, participation, and consensus. This type of culture also emphasises internal maintenance, with a concern for the individuals in the organisation, flexibility, and sensitivity to clients.

To sum up, the finding related to the second research question indicated that Clan Culture is the type of culture being practised currently in selected Saudi higher education institutions. This finding is supported by the previous findings which indicated that the Clan culture is one of the most effective types of culture as it leads

to the effectiveness of the higher education sector (Alshibani & Alatwi, 2011; Berrio, 2003; Cameron & Freeman, 1991; Esposito, 2009; Fralinger & Olson, 2007; Obenchain et al., 2004; Smart et al., 1997; Smart & St. John, 1996). Clearly, the finding related to the second question of this study suggested that the selected Saudi higher education institutions practise the Clan culture and are considered friendly and successful places to work in, with individuals' cooperation to achieve desired outcomes.

5.3.3 Student Learning Outcomes (SLO)

Research Question 3: At what level are student learning outcomes in selected Saudi higher education institutions?

To answer this question, the researcher conducted descriptive statistics and focused on the total mean score of the respondents. Based on the total mean score's interpretation, the findings suggested that the level of outcomes of student learning in the selected Saudi higher education institutions is high. The level of student learning outcomes is high in term of their cognitive outcomes, skills outcomes, affective outcomes and their academic performance.

The overall mean score of the respondents was 4.20, with a standard deviation of .555. The score of 4.20 indicated a high level of agreement (Hair et al., 2017; Hamzah et al., 2016; Khumsikiew et al., 2015), is within the range of 3.21 - 4.20. This result showed that the level of student learning outcomes in Saudi higher education is high.

Regarding this finding, it should be said at this point that, after a thorough review of the current literature in this field, to the best of the knowledge of the researcher, so far there is no single study examining the level of student learning

outcomes in terms of their cognitive outcomes, skill-based outcomes, affective outcomes, and academic performance in Saudi higher education. Hence, this finding cannot be supported by previous studies directly but maybe supported indirectly. The current finding can be supported from general view in term of general students' learning outcomes in higher education.

For instance, some studies examined learning outcomes generally and pointed out that fostering student learning outcomes in higher education institutions goes back to many effective elements including competent academic leaders and effective faculty members (Gabbard, 2017). Besides, Gabbard (2017) concluded that effective communication between student and faculty members is one of the best ways of enhancing student learning outcomes in the higher education sector. Faculty members and academic leaders are the most crucial elements for fostering student learning in the higher education sector (Gabbard, 2017; Mansson, 2014).

Based on this finding, this study also concluded that faculty members and academic leaders have the ability to increase and enhance student learning outcomes in the higher education sector. As noted previously, the finding for research question one indicated that academic leaders in selected Saudi higher education institutions have a very high level of leadership competencies. Additionally, Shahmandi et al. (2012) stated that a high level of leadership competencies has a significant effect on leadership effectiveness in the context of higher education. Naturally, a high level of leadership competencies will affect the high level of student learning outcomes in Saudi higher education. It could be said, then, that these findings are supported by the findings of Gabbard (2017) and Mansson (2014) in terms of the observation that academic leaders and faculty members being able to enhance the learning outcomes of their students. It should be added here that Shahmandi et al. (2012) also concluded that

academic leadership has a significant impact on student learning outcomes in higher education institutions. Therefore, the finding of the third question is supported by Gabbard (2017), Mansson (2014) and Shahmandi et al. (2012).

In contrast, Aleassa (2010) mentioned that the level of student learning outcomes in the Saudi education system is low. Several international reports, statistics and conclusions regarding the learning outcomes of Saudi students confirmed a general lack of knowledge and skills of graduate students (Aleassa, 2010). The students were described as missing the basic knowledge and skills required to be successful in their university studies and the future job market. However, the current finding indicated a different conclusion. The current finding is in contrast with what has been stated by Aleassa (2010), the international reports, statistics and conclusions regarding the learning outcomes of Saudi students. Aleassa (2010) pointed out that students learning outcomes at the Saudi education system are low, but the current finding revealed that students learning outcomes at Saudi higher education is high. This high level of learning outcomes is back to the efforts of the Saudi government and the ministry of education. It should be noted that the Saudi government has addressed this concern. The Saudi Ministry of Education has established a number of programmes and committees which are helping to overcome the obstacles facing the educational system generally, with a focus specifically on developing student learning outcomes (Saudi Ministry of Education, 2019).

In addition to the above descission, the findings from research Question 1 indicated that the academic leaders in selected Saudi higher education have a very high level of leadership competencies. Besides, the findings from research Question 2 indicated that the Clan culture is the type of culture that is being practiced currently in selected Saudi higher education institutions. Indeed, the previous studies such as

Alshibani &Alatwi, (2011); Berkemeyer et al., (2016); Esposito, (2009); Fralinger & Olson, (2007); and Giritli et al., (2013) showed that the Clan Culture leads to effective outcomes in higher education. Organisational culture itself leads to effective performance and outcomes (Imam et al., 2013; Silitonga & Ahmad, 2020; Sunarsi, 2020). Clan Culture also leads to the desired performance, effectiveness, outcomes, and remarkable innovation. Clan Culture is the most suitable type of culture in higher education. It helps to transform the universities and put them in the desired position. These findings highlighted a very high level of academic leadership competencies and a high level of practising Clan culture which reflected a high level of students' learning outcomes in selected Saudi higher education institutions. Therefore, a high level of learning outcomes were generated from a very high level of leadership competencies and from the positive outcomes of practising Clan culture in higher education.

Clearly, though, the findings of the third question for this study indicated that the level of student learning outcomes in selected Saudi higher education is high in terms of their cognitive outcomes, skills outcomes, affective outcomes and their academic performance. This high level of learning outcomes can be attributed, at least partly, to the remarkable efforts of the current Saudi Ministry of Education in raising student learning outcomes and preparing students for the future job market.

5.3.4 Leadership Competencies of Academic Leaders and Student

Learning Outcomes

Research question 4: Do the leadership competencies of academic leaders have a direct and significant effect on student learning outcomes in selected Saudi higher education institutions?

To answer this question, the researcher focused on analysing the effect of academic leadership competencies on student learning outcomes. The researcher analysed the

effect based on testing the null hypothesis H_{01} (there is no direct and significant effect of leadership competencies of academic leaders on student learning outcomes in selected Saudi higher education institutions). The results of the hypotheses testing failed to reject the null hypothesis H_{01} . The findings of LC \rightarrow SLO were ($\beta = -0.078$, t -value = 1.688, p -value = 0.092) supported the null hypothesis H_{01} (Fraenkel et al., 2015; Hair et al., 2014), and implying that there is no direct and significant effect of the leadership competencies of academic leaders on student learning outcomes in selected Saudi higher education institutions.

Accordingly, this finding is in line with the findings of previous studies, and it is supported by Alfraih (2014), Al-Safran et al. (2014), Balwant (2016), Bell et al. (2008), Day et al. (2016), Harrison (2011), Leithwood et al. (2010), Leithwood et al. (2004), Leithwood and Jantzi, (2008), Pina et al. (2015), Robinson et al. (2008) and Southwell and Morgan (2009). These studies examined the effect of leaders on student learning outcomes. All of these studies concluded that leaders only have a small effect and that this effect was considered indirect. Hence, these studies indicated that there is an indirect effect of leaders on student learning outcomes in the educational sector. It could be said that the finding in the current study arrives at a similar conclusion in terms of indirect effect between academic leadership and student learning outcomes (Alfraih, 2014; Al-Safran et al., 2014; Balwant, 2016; Bell et al., 2008; Day et al., 2016; Harrison, 2011; Leithwood et al., 2010; Leithwood et al., 2004; Leithwood & Jantzi, 2008; Pina et al., 2015; Robinson et al., 2008; Southwell & Morgan, 2009).

The current finding for research question 4 is also supported by studies which pointed to not a direct, but an indirect effect of leaders on student learning outcomes through mediate elements (Alfraih, 2014; Balwant, 2016; Leithwood & Jantzi, 2008; Leithwood & Jantzi, 2000; Leithwood et al., 2010; Pina et al., 2015). These mediating

elements allow leaders to impact effectively and positively on students. For instance, leaders can have an indirect impact on students by impacting directly on teachers or faculty members. The mediating elements could be faculty members, leadership style, culture, or other mediating variables in the educational environment.

While previous studies analysed the effect of leadership on student learning outcomes from different perspectives, the current study analysed the direct effect of leadership on student cognitive outcomes, skill outcomes, affective outcomes, and academic performance. Only a few previous studies investigated about the effect of instructors' leadership on students' academic performance in higher education (Alnawasreh et al., 2019; Balwant et al., 2019; Cha et al., 2019; Soares & Lopes, 2020). These studies pointed out that leadership has a positive effect on students' academic performance in the educational environment. Hence, academic performance is highly associated with effective academic leadership. However, the findings of these studies (Alnawasreh et al., 2019; Balwant et al., 2019; Cha et al., 2019; Soares & Lopes, 2020) are considered in contrast with the findings of the current findings in term of the indirect effect of academic leadership on students' outcomes.

Up to date, after thorough research on the studies in this field, and to the best of the researcher knowledge, it is clear that there is no single study which analyses the impact of academic leadership competencies on students' cognitive outcomes, skill outcomes, affective outcomes, and academic performance in Saudi higher education (King Fahad National Library, 2019; Saudi Digital Library, 2019). The findings of this study may, therefore, be considered unique and comparing them to previous studies outside the sphere of Saudi higher education. The previous studies generally indicated that there is an indirect effect of leadership on students' outcomes, which is in line with the current finding. It can be said, then, that the finding for research question 4 is

supported by previous studies conducted by Alfraih (2014), Al-Safran et al. (2014), Balwant (2016), Bell et al. (2008), Day et al. (2016), Harrison (2011), Leithwood et al. (2010), Leithwood et al. (2004), Leithwood and Jantzi, (2008), Pina et al. (2015), Robinson et al. (2008) and Southwell and Morgan (2009).

Furthermore, the studies of Alfraih (2014), Al-Safran et al. (2014), Balwant (2016), Day et al. (2016), Harrison (2011), Pina et al. (2015), and Robinson et al. (2008) pointed out that the direct and indirect impact of leaders on student learning outcomes and the performance is based on the type of leadership behaviour or style practised. These studies pointed out that transformational leadership has an indirect impact on student learning outcomes, while the transactional leadership and instructional have a direct effect on students' outcomes.

It can also be noted that most of the previous studies examining academic leadership in higher education did so with a focus on other factors, rather than on student learning outcomes. Shahmandi et al. (2012), for example, pointed out that academic leaders must have the right level of competencies in order to lead higher education institutions efficiently and competently. The focus of the study of Shahmandi et al. (2012) was on identifying whether or not the level of competencies of academic leaders is associated with their effectiveness. The study concluded that leadership competencies level has a significant effect on the efficiency of leadership. The study of Shahmandi et al. (2012) did not examine the effect leadership competencies on students learning outcomes. It only focused on the level of leadership competencies and how this level has an impact on higher education effectiveness.

Besides, Bryman (2007) examined the previous literature from 1985 to 2005 regarding the relationship between the style of leadership and leadership effectiveness

in the context of higher education. The findings indicated that there is a correlation between the style of leadership and organisational effectiveness. Nevertheless, this study did not also examine the relation or the effect of leadership on the outcomes of students learning.

To sum up, there is still a lack of studies related to research question 4 in the context of Saudi higher education. There are no much previous findings regarding this issue in the context of Saudi higher education. However, previous findings confirmed that there is no direct and significant effect of leadership on student learning outcomes in educational sectors. Therefore, the current finding regarding research question 4 is supported by previous findings.

5.3.5 Organisational Culture and Student Learning Outcomes

Research question 5: Does organisational culture have a direct and significant effect on student learning outcomes in selected Saudi higher education institutions?

This study analysed this effect by testing the null hypothesis, which states that there is no direct and significant effect of organisational culture on student learning outcomes in selected Saudi higher education institutions. The results of OC \rightarrow SLO ($\beta = 0.975$, t -value=28.65, p -value= 0.00) were not supported the null hypothesis (Fraenkel et al., 2015; Hair et al., 2014). Hence, the results of hypothesis testing rejected the null hypothesis H_{02} and accepted the alternative one H_2 . Therefore, the findings indicated that organisational culture has a direct and significant effect on student learning outcomes in selected Saudi higher education institutions.

This finding is supported by the findings of Esposito (2009) and Brady (2005). Although both studies examined the impact and relation between organisational culture and students learning outcomes from different angles, the findings indicated

that there is a positive relationship and impact of organisational culture on students learning outcomes. Esposito (2009) examined the relationship between organisational culture and student learning outcomes for out-of-classroom activities. The researcher found that there is a positive relationship between Clan Culture and Adhocracy Culture and the effectiveness of student learning outcomes in out-of-classroom activities. Notably, the study did not examine student learning outcomes in terms of their cognitive outcomes, skills outcomes, affective outcomes, and their academic performance, only extra-curricular activities. Esposito (2009) also argued that the higher education sector needs both Clan and Adhocracy organisational cultures to ensure the effectiveness of student learning outcomes. Esposito's study focused on the outcomes of classroom activities. Of course, the current study focuses on students' cognitive skills, affective and academic performance, but all of these studies collectively indicate that organisational culture affects student learning outcomes.

As mentioned above, to the best of the researcher's knowledge, studies of organisational culture and student learning outcomes are very limited in the context of higher education. Brady (2005) examined the effect of school culture on student outcomes in terms of their academic achievement and academic engagement, concluding that school culture has little impact on academic achievement but a significant impact on academic engagement. This finding implied that school culture has an effect on students' outcomes in terms of academic achievement and engagement. This supported by the findings of Esposito (2009) and Brady (2005) and strongly indicated that organisational culture has an effect on the student's outcomes.

Furthermore, Delobbe et al. (2007) pointed out that measuring the culture within an organisation leads to several benefits, including studying the correlation between organisational culture and other organisational variables. There are several

studies which examined the effect of organisational culture on different organisational variables and found that organisational culture does have a significant effect on these variables (Alsarahani, 2012; Haque & Anwar, 2012; Imam et al., 2013; James Ng'ang'a & Nyongesa, 2012; Kotrba et al., 2012; Silitonga & Ahmad, 2020; Sunarsi, 2020). These studies examined that effect of organisational culture on the effectiveness and the outcomes of higher education. They have found that there is an effect of organisational culture on the effectiveness and the outcomes of higher education. Hence, the current finding is in line with the findings of Alsarahani (2012), Haque and Anwar (2012), Imam et al. (2013), James Ng'ang'a and Nyongesa (2012), Kotrba et al. (2012), Silitonga and Ahmad (2020), and Sunarsi (2020) in term of the effect of organisational culture on the outcomes of the organisation. Accordingly, students learning outcomes are considered one of the outcomes in higher education.

Clearly, previous studies examined the effect of organisational culture in higher education from different angles. The previous studies did not examine the effect of organisational culture on student cognitive outcomes, skills outcomes, affective outcomes and academic performance. These studies indicated that organisational culture has in effect and relationship with other variables in the organisation including the effectiveness, outcomes, and student's outcome (Alsarahani, 2012; Brady, 2005; Esposito, 2009; Haque & Anwar, 2012; Imam et al., 2013; James Ng'ang'a & Nyongesa, 2012; Kotrba et al., 2012). To sum up, the finding of the fifth question for this study is supported this general agreement in the literature and indicated that organisational culture has a direct and significant effect on student learning outcomes in selected Saudi higher education institutions.

5.3.6 The Mediating Effect of Organisational Culture on the Relationship and Effect between Leadership Competencies and Student Learning Outcomes

Research Question 6: Is organisational culture a mediator which has a significant effect on the relationship and effect between leadership competencies of academic leaders and student learning outcomes in selected Saudi higher education institutions?

To analyse the mediating role of organisational culture, the researcher tested the null hypothesis which stated that organisational culture is not a mediator which has a significant effect on the relationship between academic leadership competencies and student learning outcomes in the selected Saudi higher education institutions. The findings of $LC \rightarrow OC \rightarrow SLO$ ($\beta = 0.743$, $t\text{-value} = 19.375$, $p\text{-value} = 0.00$) were not supported the null hypothesis (Fraenkel et al., 2015; Hair et al., 2014). Hence, the findings rejected the null hypothesis H_{03} and accepted the alternative one H_3 . Therefore, the findings indicated that organisational culture has a significant mediating effect on the relationship and effect between academic leadership competencies and student learning outcomes in selected Saudi higher education institutions. This confirms the idea that organisational culture mediates the effect and relationship between leadership competencies of academic leaders and student learning outcomes.

The previous studies did not examine exactly the mediation role of organisational culture between leadership competencies of academic leaders and students learning outcomes in higher education. Minimal studies examined the mediation effect of organisational culture from different angles. Accordingly, the finding for this research question is supported by a study of Li et al. (2018), in which the relationship between leadership and organisational innovation examined in terms

of the mediating effect of organisational culture. The question in Li et al. (2018) study, specifically was whether organisational culture mediates between transactional leadership, transformational leadership, and the innovation of top innovative universities in the world. Their study concluded that organisational culture could play a moderate role between leadership and achieving innovation for a university. Although this was a study of different variables, the findings affirm research question 6 in positing that organisational culture plays a mediate role between two variables and helps to achieve desired outcomes in higher education.

Furthermore, the current finding is in line with the findings of Balwant (2016) who pointed out that culture and other moderators' variables have significant moderators' effect on the relationship between transformational instructor-leadership and particular outcomes of students. Thus, Balwant's (2016) study confirmed that culture mediates between leadership and students' outcomes in higher education.

Besides, another study examined the mediation role of organisational culture from a different perspective. Ogbonna and Harris (2000) examined the mediating role of organisational culture between the relationship of leadership style and the performance of an organisation. Their findings indicated that the organisational culture mediates the relationship between leadership style and the performance of an organisation. It could, therefore, be said that the current finding for research question 6 is supported by the results of Ogbonna and Harris (2000) in term of the mediating role that organisational culture plays in an organisation. Although the studies of Li et al. (2018) and Ogbonna and Harris (2000) examined the mediation role of organisational culture from different perspectives and analysed different variables, their findings support the current finding in terms of the mediating role of organisational culture.

Other results are mixed. Leithwood and Jantzi (2000), for example, pointed out that studies which investigated the direct effect of leadership on student learning outcomes reported weak results. However, other studies which included mediating variables between leadership and student outcomes reported a significant impact (Leithwood & Jantzi, 2000). It seems clear, at least, that academic leaders should consider mediating elements that help them to affect positively on student learning outcomes. In other words, in order for leaders to have any real effect on student learning outcomes, they have to consider mediating variables such as organisational culture. Leithwood and Jantzi (2000) concluded from their study that organisational culture has a mediating role between transformational leadership and student engagement. They pointed out that transformational leadership indirectly impacts on student engagement. This result implied that organisational culture plays a mediating role which helps leaders to impact on students positively.

Returning to the findings of this study, the results for research question 6 indicated that organisational culture is a mediator which has a significant effect on the relationship between leadership competencies and student learning outcomes in selected Saudi higher education institutions. Although previous studies did not examine the mediating role of organisational culture on the relationship and effect of leadership competencies on student learning outcomes in higher education institutions (Alfraih, 2014; Balwant, 2016; Leithwood & Jantzi, 2000; Li et al., 2018; Ogbonna & Harris, 2000) and focused on different variables, their studies did confirm that organisational culture plays a mediating role between those different variables (Balwant, 2016; Giritli et al., 2013; Li et al., 2018; Mozaffari, 2008; Ogbonna & Harris, 2000; Schein, 1992; Schimmoeller, 2010; Zehir et al., 2011). It could be said, then, that the current study is supported by the previous findings of Alfraih (2014),

Balwant (2016), Leithwood and Jantzi (2000), Li et al. (2018) and Ogbonna and Harris (2000). Organisational culture mediates the effect and relationship between leadership competencies of academic leaders and student learning outcomes in selected Saudi higher education institutions.

5.4 Implications of the Study

The theoretical and practical implications are presented in this section, where the implications of the results are analysed in terms of the theories adopted for this study. Both the theoretical and practical implications of the study's findings are discussed in more detail.

5.4.1 Theoretical Implication

The findings of the current study make a contribution to the body of knowledge regarding the importance of organisational culture for academic leaders in view of efforts to enhance student learning outcomes in higher education. Indeed, the current study contributes to the literature on leadership, organisational culture, and learning outcomes. It also provides remarkable value to international literature. It seen above that previous studies pointed out that leadership affects student learning outcomes through mediating variables. In other words, in order for leaders to impact on student learning outcomes, they have to consider mediating elements which help them to achieve desired outcomes. The current study focused on this mediating effect in the context of Saudi higher education and confirmed that organisational culture has a significant mediating effect on academic leadership competencies and student learning outcomes. On the basis of this, academic leaders might be encouraged to utilise organisational culture as a tool to enhance student learning outcomes. Indeed, academic leaders have the ability to impact indirectly on student cognitive outcomes,

skills outcomes, affective outcomes and academic performance through organisational culture.

The current study also contributes to the literature on leadership competencies. The findings highlight the importance of personal and required skills as components which create competent leaders of organisations. The personal skills which exemplify core competency and the required skills which represent leadership competency are essential for achieving competent leaders and effectiveness in organisations, according to Clark's Leadership Competency Model (Clark, 2016). The results of the current study, examining the personal and required skills of academic leaders in selected Saudi higher education institutions found that academic leaders have a very high level of these skills. These findings, therefore, implied that academic leaders have to acquire the personal and required skills of leaders generally, as described by Clark, in order to be competent academic leaders in higher education. The Leadership Competency Model is an effective model which can be utilised in higher education to ensure the effectiveness and competencies of academic leaders.

The current study also contributes to the literature of organisational culture. The findings illustrated that the Organisational Culture Assessment Instrument (OCAI) for Cameron and Quinn (2011) is a useful instrument when applied to the context of higher education in the Kingdom of Saudi Arabia. The OCAI is, therefore, a useful and valid instrument when applied to Saudi higher education. According to this instrument, the findings indicated that Clan Culture is the type of culture that is practised currently in selected Saudi higher education institutions. This type of culture has a significant mediating role in academic leadership competencies and student learning outcomes. More broadly, it is also relevant that for the present study organisational culture has a significant and direct effect on student learning outcomes

in higher education. This finding contributes to the literature in terms of the importance of organisational culture in higher education generally.

Furthermore, the current study contributes to the literature on student learning outcomes. Assessing learning outcomes requires assessing cognitive ability, skills and the affective learning outcomes of individuals (Kraiger et al., 1993). The current study evaluated the learning outcomes of students based on the Classification Scheme of Learning Outcomes developed by Kraiger et al. (1993). The findings indicated that students in selected Saudi higher education institutions have a high level of learning outcomes. This implied that the Classification Scheme of Learning Outcomes is a suitable model for application in higher education institutions to assess student learning outcomes in term of their cognitive, skill-based and affective learning outcomes.

The findings also showed that students have a high level of academic performances alongside their cognitive abilities, skills, and affective outcomes. Astin (1984) pointed out that student academic performance is highly connected to student involvement in higher education institutions. Astin's theory of student involvement in colleges is an essential theory for helping academic leaders to be competent leaders in terms of increasing student involvement and their academic performance. University educational practices and policies can, therefore, be assessed based on their efforts to reduce or increase student involvement in the university. Similarly, academic leaders can also be assessed and evaluated based on the degree to which they can offer support for students to be engaged and involved effectively in college experiences (Astin, 1984). The findings of the current study indicated that Astin's theory of student involvement in college is an important tool for helping to maintain high levels of student outcomes in higher education.

As noted above, organisational culture is an essential factor in higher education. Clearly, there is an indirect effect between academic leaders and learning outcomes and a direct effect between organisational culture and learning outcomes. This was a clear insight into the literature regarding the effect and relationship between academic leadership, organisational culture, and student learning outcomes in the context of higher education.

To sum up, the findings provide evidence that organisational culture plays a significant and mediating role in selected Saudi higher education; both in terms of its effect on academic leadership competencies and on student learning outcomes. The findings validated the proposed model that suggested the mediation role of organisational culture. The findings of this study validated the proposed model, which indicated that there is an indirect effect between academic leadership competencies and student learning outcomes through organisational culture. Accordingly, this study fills the research gap, which existed in the literature regarding this issue and suggested a possible direction for the future researchers to examine these variables in different environments.

5.4.2 Practical Implication

The findings of the study can pave the direction to the policymakers, stakeholders, and practitioners about the importance of organisational culture that helps academic leaders to achieve the desired outcomes in the higher education sector. The findings of the current study will help the ministry of education and the higher education sector to pay more attention to the significant role of organisational culture. The findings will help policymakers, stakeholders, and practitioners to search for effective methods that help them to employ organisational culture correctly that contribute to achieving the development of higher education.

The findings provide a clear insight about the mediate element that help academic leaders to impact positively on student learning outcomes. The proposed model in this study can be utilised as a validated model that helps academic leaders in planning and establishing development programs. Therefore, there is a need for identifying other factors and elements that can be used as a mediation effect between academic leaders and student learning outcomes. On the other word, academic leaders need to implement more mediation elements that allow them to impact on student learning outcomes and achieve the desired outcomes in higher education.

5.5 Recommendations

In light of the study's findings, recommendations follow policy-makers, practice, and future research. These recommendations are related to the plans and policies which, in the light of the results, should be implemented to ensure: the employment and fostering of competent academic leaders; the appropriate use of organisational culture; desirable learning outcomes for students and the overall success of the Saudi higher education. The recommendations are presented in the section below.

- The Ministry of Education (MOE) should raise awareness and expectations for policymakers and academic leaders about the importance of having an adequate level of academic leadership competencies which reflects the high level of student learning outcomes.
- The MOE should give the higher education sector the authority to practice any policy which allows their academic leaders to impact directly and effectively on student learning outcomes.
- There is a need for interviewing academic leaders and policymakers to investigate their views about the factors which can help academic leaders to impact directly on student learning outcomes in the higher education sector.

- The higher education sector should encourage its academic leaders to use organisational culture effectively to enhance student learning outcomes.
- The higher education sector should combine its resources and efforts to search for different factors which will enable academic leaders to impact positively on student learning outcomes.
- The higher education sector should give appropriate authority to academic leaders to select and employ any element which may help them to impact directly on student learning outcomes.
- The MOE and the higher education sector must pay more attention to the importance of giving organisational culture a more significant role in order to enhance the creativity, performance and outcomes of students in higher education.

5.5.1 Recommendations for the Improvement of Saudi Higher

Education's Practices

Besides the general recommendations discussed above, the researcher provided more recommendations for the improvement of Saudi higher education practices as follows:

- The Saudi Ministry of Education was encouraged to utilise the proposed model generated as an outcome of this study (see Figure 5.1) as a validated model that helps Saudi academic leaders in the executive plans and development programmes.
- The Saudi Ministry of Education recommended to give appropriate authority to higher education institutions to employ any factor or practice any policy that may help academic leaders to impact directly and positively on student learning outcomes.

- The Saudi Ministry of Education must be aware of the importance of the current findings for Saudi society. The current findings showed how competent and skilled academic leaders can contribute to society by helping to produce students with desirable outcomes that contribute to national development.
- The policymakers, stakeholders, and practitioners of Saudi higher education must be aware of the importance of organisational culture that helps academic leaders to achieve the desired outcomes of Saudi higher education.
- The policymakers, stakeholders, and practitioners of Saudi higher education must search for effective methods and policies that help them to employ organisational culture properly, which contribute to the development of Saudi higher education institutions.
- The policymakers, stakeholders, and practitioners of Saudi higher education must pay more attention to the importance of academic leadership competencies in making differences by leading to the desired outcomes of students in higher education. Hence, the executive plans and development programmes in Saudi higher education must consider the importance of having an adequate level of leadership competencies for reaching the satisfying outcomes for both students and higher education.
- Saudi higher education institutions must consider the current findings in the future development plans of higher education.
- Saudi academic leaders must pay more attention to the role of Clan culture as an effective type of culture that is being practised currently in Saudi higher education, which also helps to impact positively on student learning outcomes.

- Saudi academic leaders are encouraged to investigate and implement more mediation elements that allow them to impact on student learning outcomes and achieve the desired outcomes in higher education.
- Saudi academic leaders must pay more attention to develop their competencies and skills which reflect positive outcomes of higher education. The findings indicated that personal and required skills of academic leaders are important for achieving desirable outcomes. Therefore, Saudi academic leaders must improve their skills in terms of increasing their personal and required skills. Their personal skills must include skills of teamwork, flexibility, communication, managing client relationship, problem-solving, building desired relationship, self-direction, interpersonal skills, business acumen skills, financial skills, and professionalism. Also, they must develop their required skills that cover fostering conflict resolutions, leadership abilities, implementing employee involvement strategies, assessing situations quickly and accurately, creating and leading teams, visioning process, project management, and teaching and training subordinates. When all these skills are combined together by academic leaders, they will impact completely on students' outcomes in Saudi higher education.
- The findings indicated that there are mediating factors, such as organisational culture, that allow academic leaders to impact on students learning outcomes. Therefore, academic leaders in Saudi higher education are encouraged to investigate their views and interview them to explore and examine more factors that help academic leaders to capture the nature of Saudi higher education and the best way of affecting students outcomes.

5.5.2 Suggestions for Future Research

From the findings of the current study, the researcher arrived at the following recommendations regarding future research:

- The present study illustrates a need for identifying more variables which may help academic leaders to impact positively on student learning outcomes. Therefore, there is a need for more studies to analyse other mediating or moderating variables which can help academic leaders to have a more significant impact on student learning outcomes in the context of higher education.
- The current study concluded that Clan Culture is the type of culture being practised currently at higher education institutions in the Jazan province, the Kingdom of Saudi Arabia. Hence, there is a need for further examination regarding the preferred type of organisational culture that should be practised in the future at higher education institutions in Jazan province.
- The current study concluded that Clan Culture is the type of culture being practised currently at higher education institutions in the Jazan province, the Kingdom of Saudi Arabia. Therefore, there is a need to examine and compare the type of organisational culture being practised at the universities of other provinces in the Kingdom of Saudi Arabia.
- The current study only examined the particular types of learning outcomes; including cognitive outcomes, skill-based outcomes, affective outcomes and academic performance. Thus, there is a further need to investigate the effect of academic leadership competencies on other learning outcomes in the context of higher education.

- The current study did not examine gender differences between academic leaders and whether or not these differences have a different impact on student learning outcomes. Further study is required regarding this issue.
- Demographic variables can also be examined to discover whether or not they moderate the relationship between academic leadership competencies and student learning outcomes.
- Demographic variables can also be examined to discover whether they moderate the relationship between organisational culture and student learning outcomes.
- Future study is also recommended to examine in more details the nature of the relationship between the level of leadership competencies and the performance and the outcomes in Saudi higher education.
- Future study is also recommended to examine to what extent academic leaders can employ Clan Culture to impact student learning outcomes in higher education.
- There is also a need to examine the relationship between Clan Culture and student learning outcomes in higher education institutions.
- The current study examined the mediating effect of organisational culture on academic leadership and student learning outcomes. A future study examining the exact nature of the mediating effect of organisational culture on other variables in the context of higher education is recommended.
- The current study examined the mediating effect of organisational culture on academic leadership and student learning outcomes in the context of higher education. Future study is encouraged to examine the same variables in the context of the K-12 educational sector.

5.6 Conclusion

This study aimed to analyse the mediating effect of organisational culture on the relationship and effect between academic leadership competencies and student learning outcomes in selected Saudi higher education institutions. To achieve this purpose, a quantitative research methodology was adopted, and data were collected by means of distributing a questionnaire containing 131 items. The data were collected from the perspective of faculty members who were working at higher education institutions in Jazan Province, the Kingdom of Saudi Arabia. After receiving 496 clear responses, the data were analysed using the SPSS software program (V.23) and PLS-SEM. The findings indicated that organisational culture has a significant and mediating effect on academic leadership competencies and student learning outcomes in selected Saudi higher education institutions. The results also clarified that organisational culture mediates the effect between leadership competencies of academic leaders and student learning outcomes in selected Saudi higher education institutions. There is, therefore, an indirect effect between academic leadership competencies and student learning outcomes via organisational culture in selected Saudi higher education institutions.

Besides, the findings showed that academic leaders have a very high level of competencies in term of their personal skills and required skills. This implies that academic leaders at selected Saudi higher education institutions have a very high level of personal and required skills which allow them to be competent leaders in their institutions. This also indicated that selected Saudi higher education institutions have a strong development plan, or programs, or strategies, or a systematic approach promoting a very high level of leadership competencies.

The results also stated that Clan Culture is the type of culture being practised currently in selected Saudi higher education institutions. This type of culture helps academic leaders to be effective and achieve the desired outcomes of higher education. This type of culture has a role in enabling students to achieve a high level of learning outcomes. As the Clan Culture is a descriptor for the type of organisational culture practised in this sector, it is important to stress that organisational culture and its character plays a crucial role in Saudi higher education. It helps to develop student learning outcomes and enhance creativity and performance in Saudi higher education.

Besides, the results also showed that students have a high level of learning outcomes in selected Saudi higher education institutions: cognitive outcomes, skill-based outcomes, affective outcomes, and academic performance. The very high level of leadership competencies is evidence reflects a high level of student learning outcomes in Saudi higher education. Although the findings indicated that academic leaders only have an indirect effect on students learning outcomes, a high level of competencies clearly reflects a high level of student outcomes. The findings illustrated that this indirect effect occurs through organisational culture.

In short, organisational culture plays a crucial role in selected Saudi higher education institutions. It has a significant mediating role in achieving creativity, performance and desirable outcomes of higher education. The organisational culture mediates the effect of leadership competencies of academic leaders on student learning outcomes in selected Saudi higher education institutions. It also mediates the relationship between leadership competencies of academic leaders and student learning outcomes in selected Saudi higher education institutions.

Based on the findings discussed above, the current study came up with a remarkable conclusion regarding the context of higher education. The organisational culture plays a significant mediator role between leadership competencies of academic leaders and students' learning outcomes in higher education institutions. Leadership competencies of academic leaders have an indirect effect on students learning outcomes through organisational culture. Academic leaders who adopt the leadership competencies model for Clark (2016) in their work, will impact on students' cognitive, skill, affective outcomes and academic performance through practising Clan Culture in higher education. Therefore, the findings indicated that Clark (2016) model of leadership competencies "Pyramid of Leadership", the Organisational Culture Assessment Instrument (OCAI) for Cameron and Quinn (2011), Classification Scheme of Learning Outcomes for Kraiger et al. (1993), and the theory of student involvement for Astin (1986), all are considered effective theoretical models that can be applied in higher education. When these theoretical models combined, higher education leaders can achieve desirable outcomes in higher education.

Accordingly, the researcher came up with a valuable contribution from the study by providing a recommended model for higher education based on the proposed model that created earlier in chapter One (conceptual framework). This recommended model is created as a result and a clear conclusion of this study. Figure 5.1 presents the recommended model for higher education.

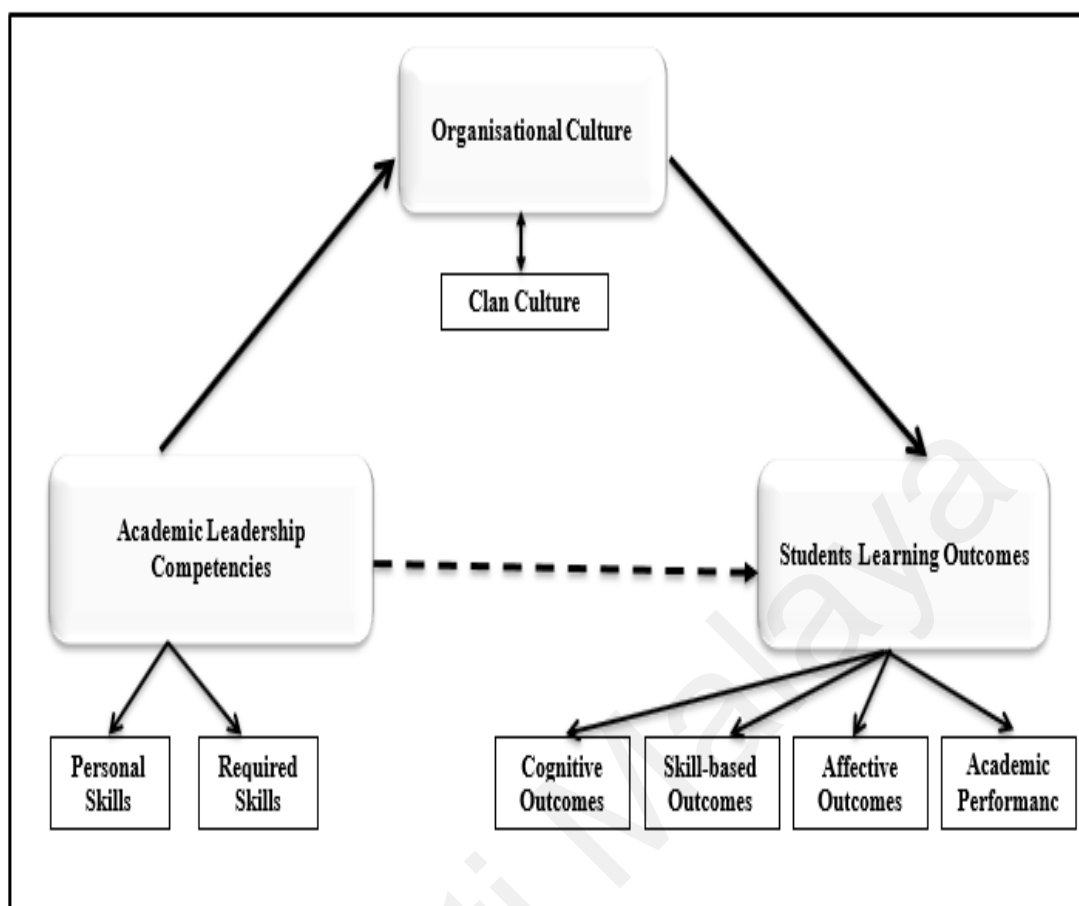


Figure 5.1. The Recommended Model for Higher Education Institutions

Figure 5.1 above shows that organisational culture plays a mediator and significant role in higher education institutions. Clan Culture is considered one of the effective types of organisational culture that plays an essential role for academic leaders and students in higher education. It can be used as a useful tool that academic leaders can utilise to impact positively on students' outcomes. It is also shown from the figure above that the competencies of academic leaders depend on their personal and required skills that can affect students' cognitive outcomes, skills outcomes, affective outcomes, and academic performance. Academic leaders have an indirect effect on students learning outcomes through practising Clan Culture in their work and dealing with students in higher education institutions. Therefore, it should pay more attention to the significant role that Clan Culture plays for academic leaders and

students in the context of higher education. Accordingly, the researcher recommends the ministry of education and higher education institutions to apply the recommended model shown in Figure 5.1 above in their development programmes and executive plans to achieve the desired outcomes of higher education.

This recommended model has the potential to reflect positively on the academic leaders and students at higher education institutions. Academic leaders must be aware of the competencies that they should possess to understand and maximise the use of organisational culture to enhance students' learning outcomes. Thus, this model will pave the direction for academic leaders and will benefit the higher education institutions as this study helped in clarifying the specific competencies that expected of academic leaders. This recommended model can also serve as the standards for academic leaders who aspire to hold the administrative position. Last but not least, the findings and recommended model of this study will contribute to the body of knowledge of the required competencies of academic leadership, the best type of organisational culture in higher education, and how leadership competencies and organisational culture affect students' learning outcomes in higher education.

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