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THE MEDIATING EFFECT OF ORGANISATIONAL CULTURE ON ACADEMIC LEADERSHIP SKILLS AND STUDENTS' SKILL-BASED LEARNING OUTCOMES IN SAUDI HIGHER EDUCATION

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ABSTRACT

The current study aims to analyse the direct and significant effect of academic leadership skills on students' skill-based learning outcomes in selected higher education institution in the Kingdom of Saudi Arabia (KSA). It also aims to analyse the mediating effect of organisational culture on academic leadership skills and students' skill-based learning outcomes. The study was conducted with a quantitative research methodology by distributing questionnaires contained 97 items to faculty members in Jazan University, Saudi higher education institution. A total of 350 responses were further analysed using the SPSS (V23) and PLS-SEM. Results indicated that academic leadership skills have no direct and significant effect on students' skill-based learning outcomes in selected higher education institution in the KSA. Results also indicated that organisational culture has a significant mediation effect on academic leadership skills and student's skill-based learning outcomes in selected higher education institution in the KSA. The present study has the potential to reflect positively on higher education, academic leadership, as well as students in higher education.

Keywords: Academic Leadership Skills, Organisational Culture, Skill-Based Learning Outcomes, Higher Education, Saudi Arabia.

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INTRODUCTION

Higher education institutions play an essential role in increasing social and economic growth (Amanchukwu, Stanley, & Ololube, 2015; Deore & Ratnalikar, 2010). The output of higher education institutions is vital for achieving success in any society. They are responsible for preparing qualified individuals with different specialties to meet the needs of the community (Altalhi, 2012). Therefore, higher education needs a competent and skilled academic leadership that provide help to achieve quality education and contribute to the nation's improvement (Albutti, 2014; Altalhi, 2012). Academic leadership in higher education affects students learning outcomes (Shahmandi, Silong, & Ismail, 2012). A number of studies also have pointed out that leadership has an effect and relationship with improving the performance, students' achievements, and students' learning outcomes (Al-Safran, Brown, & Wiseman, 2014; Balwant, 2016; Day, Gu, & Sammons, 2016; Harrison, 2011; Pina, Cabral, & Alves, 2015; Robinson, Lloyd, & Rowe, 2008).

Al-Safran et al. (2014) stated that leadership has directly and indirectly impacted students' learning outcomes. Leadership skills and leadership style can affect the outcome of students. Transformational leadership, for instance, empowers the lecturers through professional training, better wages, and flexible working hours, and then indirectly impact the students' outcomes (Al-Safran et al., 2014; Day et al., 2016; Robinson et al., 2008). Besides, academic leaders who need to improve their leadership skills need to assess leadership behaviours using Multifactor Leadership Questionnaire MLQ (Bass & Avolio, 1994). The MLQ focused on transformational and transactional leadership behaviours. The previous studies clarified that the transformational and transactional leadership are the most useful skills that impacted on students learning outcomes (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008).

In order for leaders to impact positively on students' learning outcome, they have to consider mediate elements (Alfraih, 2014; Bell, Bolam, & Cubillo, 2003; Leithwood & Jantzi, 2000). Academic leaders can indirectly impact on students learning outcomes by utilising effective mediating components in their environment. Organisational culture is considered one of the useful elements that have an impact on students and institutions' outcomes (Alsarahani, 2012; Alshibani & Alatwi, 2011). Accordingly, academic leaders must be aware of the critical role of organisational culture that provides solutions for different needs in their institutions (Alshibani & Alatwi, 2011; Imam, Abbasi, Muneer, & Qadri, 2013). Organisational culture is defined as a group of norms, values, rules, beliefs, habits, and principles, that exist among organisation's members and influenced their behaviours, feelings, attitudes, thoughts, and decisions (Alsarahani, 2012; Imam et al., 2013). It affects the organisation's development (Sheikhalizadeh & Piralaiy, 2017). It has a relation to the performance of higher education institutions (Imam et al., 2013). It has a substantial role in changing and improving colleges and universities. Studies pointed out that it has a remarkable role in helping academic leaders to increase the students' learning outcomes (Fralinger & Olson, 2007).

The Kingdom of Saudi Arabia (KSA) is one of the countries that paid more attention for reforming education and achieving global quality standards in its system (Alshayea, 2012; Saudi Ministry of Education, 2019). It has made remarkable efforts for encouraging students to study abroad by offering them full scholarships. The number of Saudi's higher education students who are studying abroad under scholarships has risen to more than 114,000 students in 2017 (Alshayea, 2012; Saudi Ministry of Education, 2019). Therefore, Saudi government gives more consideration to the improvement of educational leaders and students to achieve the desired outcomes of the society (Saudi Ministry of Education, 2019). In line with that, it pays more consideration to the organisational culture that builds the university's principles (Alsarahani, 2012). Organisational culture in Saudi higher education is the most significant pillar in building its principles (Alsarahani, 2012). It enhances academic productivity and increases their motives. The Saudi Ministry of Education is working on reforming and transforming higher education by improving the administrative and leadership environment and increasing the students' learning outcomes (Saudi Ministry of Education, 2019). This movement will not be completed without consideration of



organisational culture, because it is the corner-stone of building higher education's principles and causing the improvement of the performance (Alsarahani, 2012).

The previous studies clarified that leadership can impact indirectly on students learning outcomes (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008). They also clarified that leaders must consider mediating components that may help them to reach the desired outcomes (Bell et al., 2003; Leithwood & Jantzi, 2000). Organisational culture is one of the significant components that lead to improvement of the outcomes and performance in higher education (Alsarahani, 2012; Sheikhalizadeh & Piralaiy, 2017). However, most of these studies were conducted in the schools' environment regardless of higher education institutions. To date, there is still a lack of studies that focused on the mediating effect of organisational culture on academic leadership skills and students learning outcomes in term of their skills-based learning outcomes, there were others that focused on examining the mediation effect of organisational culture in educational environment. The current study connected these three variables and concentrate on the effect of leadership skills (transformational and transactional leadership) on students' skill-based learning outcomes via organisational culture as a mediator. Therefore, the current study aimed to examine the mediating effect of organisational culture on academic leadership skills and students' skill-based learning outcomes via organisational culture on academic leadership skills and students' skill-based learning outcomes via organisational culture on academic leadership skills and students' skill-based learning outcomes in selected higher education institution in the KSA. As such, this study aimed to answer the following questions:

- 1. Do academic leadership skills have a direct and significant effect on students' skill-based learning outcomes in selected higher education institution in the KSA?
- 2. Is organisational culture a mediator which has a significant mediation effect on academic leadership skills and students' skill-based learning outcomes in selected higher education institution in the KSA?

Figure 1 below presents the conceptual framework of the study that clarified the relationship between study's variables:



Figure 1. Conceptual Framework (Source: Bass & Avolio, 1994; Bell et al., 2003; Cameron & Quinn, 2011; Kraiger et al., 1993; Leithwood & Jantzi, 2000; Northouse, 2016)



The diagram above presented that the exogenous variable *leadership skills* of academic leaders focused on two skills transformational leadership and transactional leadership skills (Bass & Avolio, 1994). It also displayed that *organisational culture* plays a mediation role and has six dimensions: dominant characteristics, organisational leadership, management of employees, organisational glue, strategic emphasis, and criteria of success (Cameron & Quinn, 2011). The endogenous variable focused on *students' skills-based learning out*comes that cover compilation and automaticity outcomes (Kraiger, Ford, & Salas, 1993). According to the conceptual framework and discussion above, the study aimed to analyse the mediating effect of organisational culture on academic leadership skills and student's skill-based learning outcomes in selected higher education institution in the KSA. In order to achieve this aim and answer research questions, 2 null hypotheses have been formulated as follow:

 H_{01} : there is no direct and significant effect of leadership skills on students' skills-based learning outcomes in selected higher education institution in the KSA.

H₀₂: organisational culture is not a mediator that plays a significant effect on leadership skills of academic leaders and students' skills-based learning outcomes in selected higher education institution in the KSA.

THEORETICAL FOUNDATION

Four main theories and theoretical models have been used in the current study. These selected theories were transformational and transactional leadership (Bass & Avolio, 1994), organisational culture assessment instrument (OCAI) for Cameron and Quinn (2011), and the Classification Scheme of Learning Outcomes for Kraiger, Ford and Salas (1993).

Transformational leadership approach focused on developing and improving followers' performance (Bass & Avolio, 1994; Northouse, 2016). It helps to transform and change individuals. It focuses on values, emotions, ethics, standards, and long-term goals. It inspires individuals to do more work than what is expected of them to do. It helps leaders to exceed their interest for the good of the followers and organisation (Bass & Avolio, 1994). This kind of leadership has shown to be useful in diverse situations (Mutahar, Rasli, & Al-Ghazali, 2015; Northouse, 2016; Yukl, 2013). It makes followers feel more confident about themselves. It is a very effective and successful form of leadership. It is valuable and worthy leadership skill that is widely used (Yukl, 2013). It has different factors, namely; idealised influence, inspirational motivation, intellectual stimulation, and individualised consideration.

Transactional leadership has another definition called Managerial Leadership. Burns clarified that transactional leadership indicates to leadership models that emphasis on the exchange between leaders and followers (Northouse, 2016). Leaders in transactional leadership do not focus on followers' needs and personal development (Bass & Avolio, 1994; Northouse, 2016). They concentrate on exchange things with their followers. The exchange feature is prevalent in transactional leadership. Contingent Rewards and Management-by-Exception are two different factors related to transactional leadership (Bass & Avolio, 1994; Northouse, 2016). Contingent rewards refer to the exchange process between leader and followers. Followers have to do what leaders ask them to do and then get rewards from their leaders. Leaders, in management by exception, focused on negative feedback and reinforcement, and corrective criticism, (Bass & Avolio, 1994; Northouse, 2016). Leaders, in management by exception follow two forms: active and passive. The active form used to watch followers closely for making mistakes and taking immediate corrective action. The passive form used when the leaders wait until the problems appear or when the followers did not do what expected of them to do.

Both skills' transformational and transactional leadership have positive and direct effects on the individuals and the organisation's performance (Long & Mao, 2008; Yang & Wei, 2009). Yang and Wei (2009) examined the relationship between transformational and transactional leadership and the performance and capability of the organisational innovation. The findings of this study indicated that transformational and transactional leadership have a positive impact on the performance of the organisation's innovation. Likewise, a study conducted by Long and Mao (2008) to analyse the impact of leadership on achieving the required change in the organisation. The



findings indicated that transformational and transactional leadership have a positive effect on organisational change. Accordingly, both transformational and transactional leadership have a positive impact on the individuals and organisation.

To measure the culture within organization, a number of models, instruments, and measurements were developed. The present study used the OCAI to measure culture within higher education sector, because it considered as the most suitable instrument for studying culture in higher education (Alshibani & Alatwi, 2011; Vasyakin, Ivleva, Pozharskaya, & Shcherbakova, 2016). The OCAI developed by Cameron and Quinn (2011) to evaluate six dimensions in an organisation, namely dominant characteristics, organisational leadership, management of employees, organisational glue, strategic emphasis, and criteria of success. Each dimension has four alternative items that exemplify four types of culture, including Clan Culture, Adhocracy Culture, Market Culture, and Hierarchy Culture. In each dimension, 100 points must be divided among these items. The highest number should be given to the item that is more related to the organisation. Each item also can be rated based on 1 to 5 or 1 to 7 Likert-scale. Both techniques can be applied based on the nature and the objectives of the study (Cameron, & Quinn, 2011; Quinn & Spreitzer, 1991; Yeung, Brockbank, & Ulrich, 1991). The current study adopted the OCAI for Cameron and Quinn (2011) to examine the organisational culture in the context of Saudi higher education.

To measure learning outcomes of individuals, one can apply the *Classification Scheme of Learning Outcomes* for Kraiger et al. (1993). This theoretical model was developed to evaluate the learning outcomes including cognitive outcomes, skill-based outcomes, and affective outcomes. All these learning outcomes cover different measurements. Cognitive outcomes involve cognitive strategies, verbal knowledge, and knowledge organisation. Skill-based learning outcomes include compilation outcomes and automaticity outcomes. The affective outcomes comprise attitudinal outcome and motivational outcomes. To conclude, the current study focused on skill-based learning outcomes in higher education students.

Academic Leadership Skills and Students' Skill-Based Learning Outcomes in Higher Education

Both leadership and students' outcomes are very crucial in higher education. Gabbard (2017) stated that faculty members and academic leaders in higher education must invest more energy to develop students learning. To date, there is no meta-analysis that focused on the effect of academic leadership on students learning outcomes in higher education (Shahmandi et al., 2012; Southwell & Morgan, 2009). Minimal studies pointed out that leadership affects students learning outcomes at higher education (Shahmandi et al., 2012; Southwell & Morgan, 2009). These studies pointed out that leadership affects students learning outcomes at higher education (Shahmandi et al., 2012). These studies pointed out that leadership has a direct and indirect effect on students' outcomes, their achievements, and the institutions' performance (Al-Safran et al., 2014; Balwant, 2016; Day et al., 2016; Harrison, 2011; Pina et al., 2015; Robinson et al., 2008). Most of the previous literature studied this issue from different angles and focused on general schools regardless of higher education.

Likewise, Bell et al. (2003) conducted a systematic review to examine the impact of leadership on students learning outcomes in general education. They found that school leaders have an indirect effect on students' outcomes. Similarly, Leithwood, Louis, Anderson, and Wahlstrom (2004) also examined different research studies regarding the relationship between school leadership and students learning outcomes. They found that leadership has direct and indirect effect students learning. Besides, Leithwood and Jantzi (2008) indicated from their study that there is indirect effect of leadership on students learning. Southwell and Morgan (2009) stated that the impact of leadership on students' outcomes is complicated and not easy to measure. Leithwood, Louis, Wahlstrom, Anderson, Mascall, and Gordon (2010) examined the relationship between school leadership and students learning at 130 American schools. They found that school leaders have a small effect on students learning. They found an indirect relationship between school leadership and students and this effect is indirect. Leithwood, Patten and Jantzi (2010) examined how school leadership impact on students' learning. They found an indirect relationship between school leadership and students' learning. They found an indirect relationship between school leadership and students' learning. Likewise, Sebastian and Allensworth (2012) conducted a study to find out the impact of school leaders on students learning outcomes.



They found that when school leaders shift their attention to developing the learning environment and support teachers to improve their career, that leads to a high level of job satisfaction among staff. Hence, they pointed out that school leaders impact directly on teachers and indirectly on students learning outcomes.

Similarly, Pina et al. (2015) conducted a study on six schools in Portugal to examine the impact of school leadership on students' outcomes. They concluded that leaders could impact indirectly on student outcomes. They also clarified that school leaders how to apply transformational leadership could impact directly on teachers by enhancing their work and give them the necessary support, and then impact indirectly on students' outcomes. Barker (2007) also conducted a study on school leadership and students' outcomes. His study found that transformational leadership has no clear impact on student outcomes. Alfraih (2014) did a study to examine how transformational leadership affects the students' outcomes in 86 public schools in Kuwait. His study indicated that transformational leadership, directly and indirectly, affect the students' outcomes. Al-Safran et al. (2014) conducted a study to determine how various school leadership and administrative styles affect students' academic and non-academic performance. They found that transformational leadership has little effect on students' performance but is more influential on the teacher's attitudes. Day et al. (2016) conducted a study to examine the impact of school leaders on students' outcomes. The researchers examined how school leaders apply different leadership strategies in their work. They found that successful school leaders, directly and indirectly, contribute to improving the schools and students' outcomes through combining different skills of leadership including transformational leadership in their work.

The Mediation Role of Organisational Culture on Academic Leadership Skills and Students' Skill-Based Learning Outcomes in Higher Education

Organisational culture is a very crucial component in higher education. It indicates to a set of behaviours, values, attitudes, thoughts, and rules that run from the head to the line managers who can spread the culture between the individuals in the organisation (Li, Bhutto, Nasiri, Shaikh, & Samo, 2018). It has a significant role for academic leaders who can apply it to solve many problems regarding the educational environment (Tierney, 1988). Previous studies pointed out that there is a strong relationship between leadership, organisational culture and the organisation outcomes. Both leadership and organisational culture have a positive effect on the organisation's performance.

Besides, transformational leadership and transactional leadership are significant for organisation effectiveness (Bass & Avolio, 1994). Acquiring transformational and transactional qualities by leaders allow them to achieve improvement in the organisation (Bennett & Valdes, 2006; Northouse, 2016). Both leaderships enable academic leaders to improve their skills and become effective leaders who cause the required development in the institutes. Leithwood and Jantzi (2000) clarified that although transformational leadership has a significant impact on the organisation's performance and outcomes, its impact on students 'outcomes is weak. In order for transformational leadership to effect on students, it must study with the existing mediator's element that allows leaders to impact positively on students' outcomes. They pointed out that organisational culture is one of the mediating elements that leaders can utilise to impact on students positively. Besides, Ogbonna and Harris (2000) studied the mediating role of organisational culture on leadership between leadership style and the organisation's performance. They concluded that the organisational culture mediates the relationship between leadership style and the organisation's performance.

Similarly, Li et al. (2018) conducted a study to analyse the mediating effect of organisational culture on the relationship between leadership and organisational innovation. They focused on examining whether organisational culture mediates transactional leadership, transformational leadership, and the innovation of different universities in the world. Li et al. (2018) found out that organisational culture plays a mediation role between these variables in higher education institutions. Therefore, the previous studies pointed out that there is no direct effect of leadership on student's learning outcome. They also clarified that organisational culture plays a significant mediate role in higher education.



METHOD

Research Design, Population and Sampling

The current study utilised a quantitative research methodology that focused on survey design. The data collected from faculty members worked in Jazan University, Jazan Province, which located in the southern region of the KSA. This university has a large number of faculty members, staff and students who share similar features with others in other universities around the KSA (Saudi Ministry of Education, 2019). The questionnaires were distributed using a random sampling technique. According to Creswell (2012), random sampling technique allows generalisation to occur on the population. The total number of faculty members at Jazan University was 3431. According to Chua (2016), the minimum sample size suggested for a total number of 3500 is 346 respondents based on the recommended table by Krejcie and Morgan's (1970). Besides, Creswell (2018) recommended that one must collect a higher number of respondents to avoid any problem in data analysis. Based on that, the researchers collected more than 346 respondents.

Instrumentation

The current study utilised questionnaire adopted from several instruments and contained 97 items. It included four core parts; namely, demographic information, leadership skills, the organisational culture, and the students' skill-based learning outcomes. The demographic information section covered the respondents' gender, age, experience, and qualification. The leadership skills contain 16 items adopted from MLQ for (Bass & Avolio, 1994), the organisational culture contain 71 items adapted from the OCAI for Cameron and Quinn (2011). The students' skill-based learning outcomes include 10 items and adapted from the Classification Scheme of Learning Outcomes for Kraiger et al. (1993). Besides, the researchers applied the 5-point Likert scale to analyse the respondents' opinion, according to (1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, and 5= Strongly Agree). In brief, the questionnaire was developed on a 5-point Likert scale and contained 97 items.

To assess the validation and reliability of the instrument, the questionnaire was pilot-tested at a higher education with 150 responses. The validation and reliability were tested using structural equation modelling PLS-SEM (See Figure 2). The following sections included more details regarding the validation and reliability of the instrument. In addition, Figure 2 below presents the assessment of measurement model that cover the validity and reliability of the instrument.



Figure 2. Measurement Model Assessment

Validation

The validation was conducted by face, convergent and discriminant validity. Four different experts in the filed have completed the face validating. Through PLS-SEM, the convergent and discriminant validity were tested. The convergent validity was done through checking the values of Average Variance Extracted (AVE) and factor loading (see Figure 2). The AVE refers to the correlation between the constructs (Hair, Hult, Ringle, & Sarstedt, 2017). The value of 0.5 and above indicates a high level of validity. Accordingly, the findings in Table 1 below demonstrated that all values of the AVE were within the acceptable range of the convergent validity.



Table 1 Results of AVE

Results of AVE				
Variable		Average Variance Extracted (AVE)		
L	TF	0.532		
	TC	0.506		
OC	DC	0.516		
	OL	0.512		
	ME	0.576		
	OG	0.505		
	SE	0.538		
	CS	0.545		
SO	SSO	0.582		

Key: L= Leadership Skills; TF= Transformational Leadership; TC= Transactional Leadership; OC= Organisation Culture; DC= Dominant Characteristics; OL= Organisational Leadership; ME= Management of Employees; OG= Organisation Glue; SE= Strategic Emphases; CS= Criteria of Success; SO=Students Outcomes; SSO= Students Skill Outcomes

The factor loading presented in Figure 2 also indicated that all the items loaded with an acceptable range of 0.5 and above (Hair et al., 2017). In addition, the discriminant validity implies to the degree in which a construct is dissimilar from other constructs (Hair et al., 2017). It tested through Fornell-Larcker Criterion, and Heterotrait-monotrait ratio (HTMT). Table 2 and Table 3 show the results of the discriminant validity.

Table 2

The re	The results of Fornell-Larcker criterion										
	CS	DC	L	ME	ОС	OG	OL	SE	SSO	тс	TF
CS	0.738										
DC	0.862	0.718									
L	0.774	0.796	0.647								
ME	0.891	0.936	0.768	0.759							
ОС	0.969	0.971	0.805	0.981	0.697						
OG	0.893	0.899	0.727	0.893	0.957	0.71					
OL	0.898	0.935	0.815	0.935	0.977	0.865	0.715				
SE	0.944	0.872	0.736	0.912	0.968	0.864	0.902	0.733			
SSO	0.803	0.783	0.675	0.808	0.828	0.744	0.804	0.815	0.763		
тс	0.809	0.838	1.058	0.799	0.839	0.74	0.844	0.783	0.721	0.629	
TF	0.716	0.729	1.057	0.712	0.746	0.687	0.758	0.67	0.609	0.912	0.689

The findings from the table above indicated that the discriminate validity could not establish under Fornell-Larcker Criterion. Therefore, the values of HTMT has been tested as suggested by Henseler, Ringle, and Sarstedt (2015). The standard of HTMT value is normed between 0 to 1. The problem in the discriminant validity accrued if the values of HTMT are higher than 1 (Alarcón, Sánchez, & De Olavide, 2015; Henseler et al., 2015). Therefore, after testing the HTMT, the results indicated that the discriminant validity could establish under the HTMT. Table 3 below shows the results of HTMT.



Table 3 Results of the HTMT

nesui	Results of the HTMT										
_	CS	DC	L	ME	OC	OG	OL	SE	SSO	тс	TF
CS											
DC	0.863										
L	0.78	0.802									
ME	0.892	0.936	0.773								
OC	0.97	0.973	0.811	0.98							
OG	0.895	0.903	0.734	0.894	0.961						
OL	0.903	0.938	0.826	0.939	0.98	0.87					
SE	0.945	0.873	0.741	0.912	0.968	0.866	0.904				
SSO	0.806	0.78	0.681	0.807	0.828	0.746	0.809	0.813			
тс	0.804	0.841	1.051	0.799	0.839	0.74	0.852	0.785	0.734		
TF	0.718	0.728	1.055	0.71	0.744	0.687	0.76	0.667	0.604	0.872	

Based on the discussion above, the values of HTMT were acceptable, according to Alarcón et al. (2015) and Henseler et al. (2015). Therefore, discriminant validity could establish under HTMT.

Reliability

Reliability test was checked via PLS-SEM and included testing the composite reliability (CR) and Cronbach's alpha. The acceptable values of CR and Cronbach's Alpha range between 0.70 and 0.95 (Hair et al., 2017; Pallant, 2013). The findings of Table 4 below show the results of the reliability test.

Table 4

Results of Reliability Test	
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	Cronbach's Alpha	Composite Reliability (CR)	AVE
TF	0.931	0.920	0.532
тс	0.902	0.918	0.506
DC	0.926	0.927	0.516
OL	0.924	0.926	0.512
ME	0.937	0.937	0.576
OG	0.928	0.929	0.505
SE	0.920	0.920	0.538
CS	0.938	0.939	0.545
SSO	0.933	0.933	0.582
	TC DC OL ME OG SE CS	TC 0.902 DC 0.926 OL 0.924 ME 0.937 OG 0.928 SE 0.920 CS 0.938	TC 0.902 0.918 DC 0.926 0.927 OL 0.924 0.926 ME 0.937 0.937 OG 0.928 0.929 SE 0.920 0.939

Based on the discussion and the results of the tables above, the values of the CR, Cronbach's Alpha, and the AVE were within the acceptable range. Therefore, the current instrument is a valid and reliable instrument that can be used to collect and analyse data.

RESULTS

The data was collected after testing the validity and reliability of the instrument. The data were collected from faculty members working at Jazan University. A total of 420 responses was received to avoid any problem in data analysis as suggested by Creswell (2018). After data screening, including checking the missing data and the outliers,



only 350 responses were found to be ready for analysis. The number of 350 responses was the target of this study as stated earlier. Hence, the data were analysed based on the 350 responses using SPSS (V.23) and PLS-SEM. The findings of this analysis included the demographic information, and the findings of hypotheses testing.

Demographic Information of the Respondents

Descriptive analysis has been conducted via SPSS to analysis the demographic information of the respondents. Table 5 below presents these details.

Table 5Demographic Information of the Respondents

ltem		Ν	%	
Gender	Male	163	47.1	
	Female	183	52.9	
Age	20-30	75	21.7	
	31-40	176	50.9	
	41-50	73	21.1	
	51 and above	22	6.4	
Experiences	Less than 5 years	137	39.6	
	From 6-10 years	114	32.9	
	From 11-15 years	49	14.2	
	Over 15 years	46	13.3	
Qualification	Diploma	4	1.2	
	Bachelor	42	12.1	
	Master	217	62.7	
	PHD/EDD	83	24.0	

Table 5 above showed that female respondents of 183 (52.9%) were higher than that of males 163(47.1%). The majority of respondents of 176(50.9%) were between 31 to 40 years old. A large number of respondents of 137 (39.9%) had working experience between five years and less. Finally, the majority of respondents of 217 (62.7%) were holding a master degree.

Hypotheses Testing

Two null hypotheses have been formulated to answer research questions. The null hypotheses tested based on the values of path coefficient (β) (between -1 and +1), T-value (> 1.96), and the p-value (<0.05). The null hypothesis should be rejected if the p-value is equal or <0.05. In contrast, the null hypothesis must be accepted if the p-value is higher than 0.05 (Fraenkel, Wallen, & Hyun, 2015; Hair, Black, Babin, & Anderson, 2014). Figure 3 below presented the structural model assessment (hypotheses model).



Figure 3. The structural model assessment (Hypotheses Model)



The following sections included more details regarding hypotheses testing and answering research questions based on the results of path coefficient (β), T-value, and the p-value.

Academic Leadership Skills and Students' Skill-Based Learning Outcomes

This section provides answer for research question 1 that focused on analysing the effect of academic leadership skills and students' skill-based learning outcomes. To answered this question, null hypothesis (Ho1) has been formulated and tested as follow:

H₀₁: There is no direct and significant effect of leadership skills on students' skills-based learning outcomes in selected higher education institution in the KSA.

Table 6 below presents the findings of H_{o1}.

Table 6

н		PATH COEFIICIENT (β)	T –Value (>1.96)	P Value (<0.05)	R²	Decision
H _{o1}	L -> SSO No direct and significant effect of L on SSO	0.04	0.621	0.535**	0.687	Supported (Accepted)

Note: Significance level **p<0.05

Key: L= Leadership Skills; SSO= students' skill-based learning outcomes

Table 6 above showed the findings of hypothesis testing Ho1. The findings have failed to reject the null hypothesis H_{o1} . The results of the effect of leadership skills on students' skill-based learning outcomes were (β = 0.04, t=0.621, p>0.05). The β value indicated no relationship between the constructs, the t-value was below than 1.96, and the pvalue was not significant. Thus, the null hypothesis (H_{o1}) has been accepted. Thus, the results answered research question 1 and indicated that there is no direct and significant effect of leadership skills on students' skill-based learning outcomes in selected higher education institution in the KSA.

The Mediation Effect of Organisational Culture on Leadership Skills of Academic Leaders and Students' Skill-**Based Learning Outcomes**

This section provides answer for research question 2 that focused on analysing the mediation effect of organisational culture on leadership skills of academic leaders and students' skill-based learning outcomes. To answer this question, null hypothesis H₀₂ has been formulated and tested as follow:

H₀₂: organisational culture is not a mediator that plays a significant effect on leadership skills of academic leaders and students' skills-based learning outcomes in selected higher education institution in the KSA. Table 7 below presented more details regarding the hypothesis testing H₀₂.



Table 7

The Results of Hypotheses Testing (H_{o2})

н		PATH COEFIICIENT (β)	T –Value (>1.96)	P Value (<0.05)	R ²	Decision
H _{o2}	L -> OC -> SSO OC has no significant mediation effect on L and SSO	0.587	12.981	0.00**		Not Supported (Rejected)

Note: Significance level **p<0.05

Key: L= Leadership Skills; OC= Organisational Culture; SSO= students' skill-based learning outcomes

Table 7 above displayed the findings of hypothesis testing H_{o2} . The findings have failed to accept the null hypothesis H_{o2} . The results of the mediation effect L -> OC -> SSO were (β = 0.587, t=12.981, p<0.05). The β value indicated a positive relationship between the constructs, the t-value was greater than 1.96, and the p-value was significant. Accordingly, the null hypothesis H_{02} has been rejected. Therefore, the results answered research question 2 and indicated that organisational culture is a mediator that has a significant mediation effect on academic leadership skills of academic leaders and student's skill-based learning outcomes in selected higher education institution in the KSA.

DISCUSSION AND IMPLICATIONS

The current study has analysed the direct effect of academic leadership skills on student's skill-based learning outcomes. Besides, it focused on examining the mediation effect of organisational culture on academic leadership skills and student's skill-based learning outcomes in selected higher education institution in the KSA.

The findings from the hypotheses testing for the first hypothesis implied that there is no direct and significant effect of academic leadership skills on students' skill-based learning outcomes in selected higher education institution in the KSA. This finding corresponded with the evidence presented by Barker (2007), Bell et al. (2003), Leithwood et al. (2010), Leithwood et al. (2004), Leithwood and Jantzi, (2008), Pina et al. (2015), Sebastian and Allensworth (2012), and Southwell and Morgan (2009). These studies concluded that school leaders have an indirect effect on students' outcomes.

In addition, studies by Alfraih (2014), Al-Safran et al. (2014), Balwant (2016), Yang and Wei, (2009), Day et al. (2016), Harrison (2011), Pina et al. (2015), and Robinson et al. (2008) pointed out that leadership skills, such as transformational and transactional leadership skills can impact directly and indirectly on student learning outcomes. Transformational leadership has an indirect effect on student learning outcomes, while transactional leadership has a direct impact on students' outcomes. Therefore, the current findings in line with the previous results of Alfraih (2014), Al-Safran et al. (2014), Balwant (2016), Yang and Wei, (2009), Day et al. (2016), Harrison (2011), and Pina et al. (2015) in term of indirect effect between transformational leadership skills and students learning outcomes.

The findings from the second hypothesis indicated that organisational culture mediates the effect of academic leadership skills on student skill-based learning outcomes in selected higher education institution in the KSA. The earlier studies did not test precisely on the mediation role of organisational culture on academic leadership skills on student skill-based learning outcomes. There were only several studies that analysed the mediation effect of organisational culture in higher education from different angles. Thesis studies indicated that organizational culture plays a significant mediation role in higher education. It also impacts positively on the performance and outcomes in higher education. Therefore, the current findings are in line with the findings of Leithwood and Jantzi (2000), Li et al. (2018) and Ogbonna and Harris (2000) who clarified that that organisational culture plays a



significant mediation role. Besides, Leithwood and Jantzi (2000) pointed out that organisational culture has a mediating effect between transformational leadership and student engagement. They stated that transformational leadership has an indirect impact on student engagement. These findings referred that organisational culture plays a mediating role in helping leaders to impact on students positively. Clearly, the current finding is supported by previous findings of Leithwood and Jantzi (2000), Li et al. (2018) and Ogbonna and Harris (2000). Based on the discussion above, the findings in the current study correspond with the existing literature in terms of the indirect effect of leadership skills on students' outcomes through mediation role of organisational culture.

The findings of the present study will contribute to the body of literature that examines the effect of academic leadership skills on student skill-based learning outcomes through mediation effect of organisational culture. Previous literature pointed out that transformational leadership skills and transactional leadership skills are both critical for leaders in educational sectors. This was also supported by the current study that clarified that transformational and transactional leadership skills are significant in higher education. In addition, past studies implied that the OCAI (Cameron & Quinn, 2011) is a useful instrument in higher education that it can impact positively on both academic leadership skills and students' skills outcomes. Besides, the findings also presented that the Classification Scheme of Learning Outcomes proposed by Kraiger et al. (1993) is a suitable model to measure students' skills-based learning outcomes in higher education. This study has a theoretical implication, which contributes to the body of literature. It has confirmed the significance mediation role of organisational culture in the context of higher education.

Moreover, the findings have the potential to reflect on the Ministry of Education, higher educational leaders, higher education students, officials, and practitioners. The findings provided a meaningful conclusion about the mediation role of organisational culture in higher education. Thus, the current findings will help policymakers to include that in developing plans and improve programmes for academic leaders and students in higher education.

CONCLUSION AND RECOMMENDATIONS

The findings of the present research have indicated the indirect effect between academic leadership skills and student's skill-based learning outcomes through organisational culture in selected higher education institution in the KSA. The findings clarified that organisational culture plays a significant mediation role on academic leadership skills and students' skill-based learning outcomes.

Therefore, the ministry of education and institutes of higher education must pay more attention to the significant role of organisational culture in higher education. Academic leaders are recommended to employ organisational culture in their executive and development plans as it has a positive effect on students learning outcomes in higher education. Future studies are recommended to examine the mediation effect of organisational culture on other variables in higher education. It is also recommended to analyse these variables in different institutes of higher education. Ultimately, it is necessary for future studies to examine whether the demographic variables can moderate the relationship between these variables.

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