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Mediating Effect of External Factors to the Relationship Between Leadership Styles and Organizational Performance

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Abstract: Inappropriate leadership style harms employees and the organization's overall performance. Lack of leadership likely causes unethical practises, high turnover, and employee disengagement. Many of the organization's problems are attributed to incompetent or mismatched administrators. They may use an inappropriate leadership style with project subordinates. There is lack of studies on leadership styles and organisational performance, especially in oil and gas organisations. Hence, this research examines the relationship leadership styles and organisational performance of ADNOC company. This study involved questionnaire survey for data collection and analysis of 398 questionnaire forms was carried out through structural equation modelling. The study established a mediation model where the external factors act as mediator to the relationship. Based on the assessment on the model, it was found that Charismatic and Democratic leadership styles have a significant impact on organisational performance while Transformational and Transactional do not have significant effect on the organization performance. Also, external environment is proven as mediator of Charismatic and Democratic leadership styles. Overall, the developed model can assist for adopting the leadership style in achieving the successful organizational performance of ADNOC Company.

Keywords: Leadership styles, organizational performance, PLS mediation model

1. Introduction

Leadership is about directing and organising ideas, missions, goal setting, strategy formation, policies, and means to attain corporate goals effectively and efficiently. It is key to better effort and organisational activities (Al Khajeh, 2018). Transformational, trade, active, behavioural, and supporting leadership styles exist (Northouse, 2018). Numerous studies suggest that leadership style affects company culture and performance (Al Khajeh, 2018). Al Khajeh (2018) said future UAE studies should examine the link between leadership style and organisational effectiveness. Top-tier leadership is essential to fulfil the aim and vision while dealing with external changes (Glç & nandi, 2021). Many organisations face unethical methods, high employee turnover, and poor financial performance. Poor leadership may be to blame (Gandolfi & Stone, 2018). Effective leaders must organise and motivate workers (Wuryani et al., 2021). Some companies ignore their CEOs' styles. This research examines the relationship between leadership style and organisational performance (Khan & Adnan 2014; Cannatelli et al., 2017; Al Khajeh, 2018). Leadership styles include transformational, transactional, supportive, activity, and behavioural. These leadership styles were chosen because they are the most popular styles worldwide, allowing new concepts to be formed through research. Despite substantial study

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on leadership style and organisational performance in other countries (Alnaqbi, 2011; Suliman & Al Kathairi 2012; Imran et al., 2016; Baig et al., 2021; Wuryani et al., 2021), there is insufficient research in the oil and gas business. An enthusiastic, dedicated worker with low stress and a desire to go beyond is essential to create organised justice. Organizational justice is one of the least understood and underused ways to improve the workplace. In the last 20 years, there have been various questions of organisational justice, including distributive, procedural, and interactive justice, and its function in influencing employee commitment and withdrawal intentions.

Unethical behaviours, frequent turnover, and uncommitted staff are likely related to a lack of strong leadership. The administrator is typically blamed for the organization's many problems. Some may have insufficient skills or properties that do not match their work (Kerzner 2016). They may utilise an unsuitable leadership style with project subordinates. Subordinates' effective performance and exceptional job are always desired, but not always achieved (Knights, 2021). Such grounds justify studying leadership styles and their effect on ADNOC Oil and Gas Company's performance in the UAE, since no such study exists. The leadership style is also dependent on the leader, therefore there is no direction if the leader leaves. When charismatic leaders do not train their successors, the problem worsens. Long-term organisational performance may suffer as a result (Wongsurawat, & Jermisittiparsert, 2020). Hansen et al. (2020) found similar results, demonstrating charismatic leadership hurts organisational performance by failing to excite and persuade personnel to attain goals.

Organization theory proponents emphasise responding to the external environment to boost production. Environmental manifestations affect organisational outcomes, per Bagire and Namada (2013). External changes might affect organisational outcomes positively or negatively (Mikalef et al., 2020). External environmental components affect organisational operations differently, therefore leaders must be aware of environmental volatility to improve performance (Katou et al., 2021). In the current research, the external environment will be explored as a mediator between leadership styles and organisational success. The research will examine leadership styles and organisational performance in the UAE. The study's findings will also assist firms evaluate which leadership styles to adopt to engage personnel in the ADNOC market.

2. Literature Review

2.1 Leadership

An effective leadership serves as the organization's driving force and is critical to its success and profitability. Therefore, it is important for leadership to focus on organisational performance. The ability to lead is crucial for businesses. It is one of the oldest preoccupations in the world, embraced by all organisations today, and this highlights the critical necessity for successful leadership in organisations (Bass, 1990). Significant research has also been done on the abilities, goals, and flaws of leaders, as well as on their privileges and rights and their obligations (Bolman and Deal, 2017). In certain organisations, leaders can also be seen as prophets, chiefs, or emperors who represent their people (Blenkinsopp, 1995; Ramadhan, 2018). Any company's organisational structure is determined by the impact of outstanding leadership, while organisational structures that fail due to weak leadership fall apart (Bolman and Deal, 2017). However, there is no clear definition of leadership for a variety of reasons, understanding the perception of leadership is straightforward. The phenomenon of leadership is influenced by more than 90 factors (Winston and Patterson, 2006). The results of their study clearly show how difficult it is to stick to one idea about leadership. According to his or her description, the leader selects, provides for, and trains one or more individuals. Holten and Brenner (2015) describe leadership as the capacity to fully suggest the people how to meet or exceed organisational goals and to commit positively and impulsively. However, each leader views leadership in a unique way (Neal, Boatman, & Miller, 2013). Army officers, for instance, can consider leadership as a method of inspiring soldiers to produce the outcomes they want. Chiou and Chang (2009) highlighted the significance of leadership in the oil and gas sector, asserting that it is an essential element in controlling organisational well-being, establishing its vision, and boosting profitability, which is the definition used in this study. Human resource management has gradually taken the place of the traditional idea of personnel administration because of the different new leadership philosophies. Therefore, it is thought acceptable to integrate new leadership styles and effective management to boost employee productivity performance in organisations, particularly the oil and gas industry in the UAE (Iqbal et al., 2015). According to Jenkins (1988), leaders must act as good diagnosticians and adopt a style that is suitable for the demands of the organisation they are in charge of. Different leadership philosophies are being employed in organisations to facilitate empowerment and decision-making so that the administrative phenomenon might have an impact on the leadership style contingencies. Therefore, a lack of clear direction and the use of a strategic management approach to daily tasks might have an impact on staff performance.

2.2 Organizational Performance

Performance measurement is widely recognised as a crucial element of effective governance and is becoming more and more significant in the management of public services. There is consensus in the literature on management and performance evaluation that there are multiple dimensions to performance (Pedroso & Gomes, 2020). The four elements listed below receive most of the attention in performance measurements: The four types of measurement are

input (which concentrates on the resources used to produce goods and services), output (which concentrates on the quantity of goods and services produced), activity measurement (which concentrates on the actions taken to produce goods), and outcome (which concentrates on the effects of goods and services produced). Weber's (1946) theory of bureaucratic functions is the foundation for the emphasis on input measurement. By measuring inputs, managers may effectively manage the machinery, raw materials, human resources, financial resources, etc. Alternately, the emphasis for evaluating performance could be on initiatives like processes, procedures, and programmes and use instruments such as compliance audits. Concentrating on activities does not provide us with much information about the quantity or quality of outputs generated, or about how valuable the outputs are in terms of generating income or client satisfaction.

The middle managers have control over receiving feedback and performance objectives from measuring output, which is less expensive. If the managers are aware of what constitutes public value, they can concentrate on factors like productivity and efficiency that support it. While productivity indicators and financial performance indicators evaluate financial performance, output indicators look into the level of activity. Governmental organisations are urged to gauge success in terms of customer satisfaction or results. Think about the current debate over whether to emphasise output in the public sector or output measurement. Most of the reasons now support quantifying the results as the results serve as a gauge of the public's value. However, there are many challenges in determining public value. The three primary ones are "very expensive, there is no information available, and measurements must be made over a sizable amount of time using a variety of measurers". The public and private sectors both use a variety of performance measurement models.

2.3 Theories Related to Organizational Performance

Performance measurement is widely recognised as a crucial element of effective governance and is becoming more and more significant. There are several theories which discuss organizational performance. Some of the basic and common theories are discussed in the following sub-sections.

2.3.1 Organizational Theory

The study of organisations, their capacity for adaptation, and the strategies and structures that direct them is known as organisational theory. Organizational theory distinguishes between two types of performance evaluation control: behavior-based and outcome-based, and is rational, information-based, efficiency-oriented, concerned with the factors that influence control strategy (Eisenhardt 1989). The components of organisational theory are as follows:

- Compare the capacity to gauge results from actions.
- Control is used as a measurement and evaluation technique. The compensation is implied.
- It is possible to reduce a range of preferences through social control.
- Views knowledge as a tradable good

2.3.2 Contingency Theory

Organizational effectiveness is based on the alignment of organisational traits (structure) with various external factors. The importance of task characteristics, especially task programmability, in the selection of control technique is generally strongly emphasised in various iterations of organisational theory. Existence of "people" or social control is a counter argument to performance-based control. Modern theorists, unlike classical scholars, generally agree that there is no any perfect organisational structure. The structure, size, technology, and environmental requirements of the organisation must all be compatible. One such viewpoint is contingency theory (Fiedler, 1964), which asserts that various internal and external constraints influence the ideal organizational/leadership style.

2.3.3 Systems Theory

Systems theory is a branch of organisational theory that includes a variety of approaches, including the General Systems Theory of von Bertalanffy (1967), the Dialectical Systems Theory of Mulej, and the Critical Systems Thinking of Flood (1995). System theory promotes wholeness and opposes reductionism. System theory focuses on the configuration of the parts that connect them all together and the relationships between them rather than reducing entities (such as the human body) to the characteristics of their components or elements (such as organs or cells). It encourages interconnectedness, interconnectivity, and openness as opposed to independence, isolation, and intimacy. This makes it possible to discover a new property of interacting entities created by the overall study that is not apparent when parts are studied separately. Systems theory emphasises synergy as well as combination analysis and synthesis and acknowledges complexity as a reality-defining characteristic. Organizations are viewed by systems theory as systems with flexible boundaries that interact with their surroundings and require adaptation to survive. Since they are open systems, the environment is directly impacted by their inputs and outputs.

2.3.4 Goal Setting Theory

One of the best motivating theories is Locke and Latham's (2002) goal-setting theory. It was inductively built from empirical research done over the course of more than 40 years. Its premise is based on the idea that conscious goals affect behaviour (where goals are viewed as the target, aim, or behaviour) (Locke & Latham, 2002). The principles of goal setting theory are also seen as crucial at the organisational level, even though it is largely researched at the human level. Goal-setting is successful for any endeavour where people have control over how well they do, according to Locke and Latham (2006). The objectives of individuals, teams, and the organisation as a whole may clash in the context of a corporate setting, according to my empirical observations. Conflicting goals may encourage unproductive behaviour, which could hurt performance. Therefore, alignment between personal and group goals is essential for best performance.

3. Conceptual Model of the Study

The research model or conceptual framework serves as a method for investigating phenomena in order to make the reader aware of specific research findings. These, on the other hand, will reveal how the method will be implemented. Furthermore, the conceptual framework aids in determining the research objectives. It clarifies the important features and their relationships in order to collect and analyse data (Cannatelli et al., 2017). There are four independent variables for the model used in current study which are transformational leadership and transactional leadership adopted from (Al Khajeh 2018), Charismatic leadership and Democratic leadership. These leadership philosophies were chosen because they are the ones that are most frequently used globally, and if any new philosophies are developed through research, they can enhance these philosophies even further and lead to even greater success for organisations. This research will aid in observing the system's impact and the influence of leadership in managing productivity and the multinational work environment. This study sought to highlight the effectiveness of these leadership styles in increasing employee productivity. However, by examining and comparing the impact of leadership, the oil and gas sector and the UAE in general will benefit greatly. As a result, it will be of great indirect benefit to the UAE. Figure 1 shows the conceptual model for current research work.

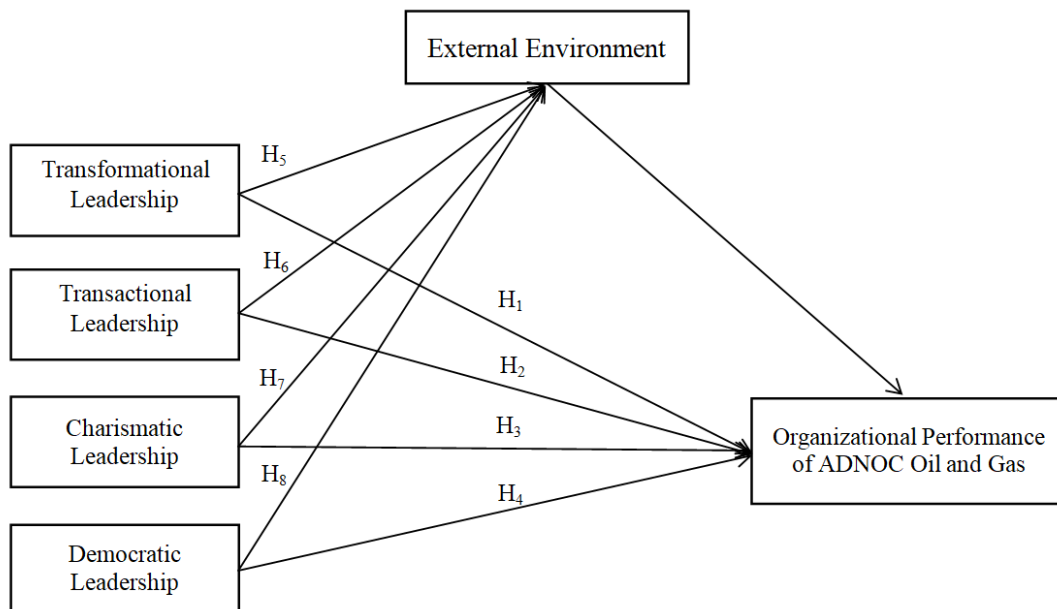


Fig. 1 - Proposed research framework

Transformative leadership prioritises follower development and needs assessment. The development of their employees' overall value system, morals, skills, and level of motivation are of utmost importance to managers who place a strong emphasis on transformative leadership. With the help of transformative leadership, followers and leaders can better understand one another's motivations, values, and interests. Transformative leadership exemplifies outstanding leadership abilities (Bass and Avolio 1994). When leaders broaden or boost employee engagement, it happens. The driver of change Encourage employees to think about things other than themselves. Transforming leaders are charismatic and effective at inspiring colleagues for a variety of reasons, such as meeting employees' emotional needs or intellectually stimulating them. Wang et al. (2011) reported that there is a link between transformative leadership and individual follower performance. Performance is a function of a person's skills, talents, knowledge, and motivation toward a specific activity. Self-determination and rewarding interactions with individuals or groups are important to change leaders. Followers are inspired to identify with transformative leaders by their ideal and

behavioural charm (Jyoti & Bhau, 2015). A happy workplace is fostered by personalized attention fostered by transformative leaders, which improves overall performance. Thus, there is a positive relationship between transformational leadership and organisational performance (Jyoti & Bhau, 2015). Organizational performance is significantly impacted by transformative leadership (Sofi and Devanadhen 2015). As a result, it is hypothesised:

H1: Transformational Leadership has a significant impact on organisational performance.

If a leader is constantly looking for ways to contribute, he is said to be a transactional leader (Uchenwamgbe, 2013). Examples of this include promotions, pay increases, performance reviews, and increased responsibility. The biggest issue with this leadership style is that it raises irrational expectations. As a result, the exchange of objectives and rewards between management and employees is what is meant by transaction leadership (Ojukuku, et al., 2012). Organizational performance is improved by transactional leadership techniques (Longe 2014). Transaction leadership styles help employees build and maintain environments that maximise organisational and personal capabilities. This leadership approach is very helpful in establishing a conducive environment for performance as well as in outlining a compelling vision to enhance the performance of the company as a whole (Longe, 2014). Sofi and Devanadhen's (2015) survey revealed that transaction leadership had no discernible effect on organisational performance. Due to the lack of encouragement for employee creativity and innovation under this leadership style, employees fall short of organisational expectations. As a result, it is hypothesised:

H2: Transactional leadership has a significant impact on organisational performance.

One of the most successful leadership philosophies is charismatic leadership, in which charismatic leaders inspire followers to carry out their vision. Innovativeness and originality are fostered by charismatic leadership, which is thought to inspire employees. The main drawback is that because the leadership style is entirely dependent on the leader, there will be no direction if the leader leaves the organisation. When charismatic leaders don't train their staff to be their successors in the future, the issue gets worse. "Satisfied followers but few future leaders" are the results of this style of leadership. It might have a detrimental long-term effect on an organization's performance (Wongsurawat, & Jermsittiparsert, 2020). Similar findings were reported by Hansen et al. (2020) and Ojukuku et al. (2012), showing that charismatic leadership has a detrimental effect on organisational performance. Employees are not inspired or convinced to produce the desired results as a result of it. As a result, the following hypothesis is advanced:

H3: Charismatic leadership has a significant impact on organisational performance.

Decision-making that is distributed and shared among all subordinates is referred to as democratic leadership. A democratic leadership style significantly increases the likelihood of poor execution and decision-making. However, democratic leadership is well known as a motivator to enhance employee performance because their ideas are valued. Democratic governance boosts organisational efficiency (Elenkov 2002). Under democratic leadership, employees can make decisions and communicate them to the group and management. This kind of leadership instils in workers a sense of accountability, objectivity, and responsibility (Elenkov, 2002). Bhargavi and Yaseen (2016) looked into the impact of democratic leadership on organisational effectiveness. Their research suggests that democratic leadership encourages employees to express new ideas and put them into practise while also involving them in decision-making. Long-term advantages for the organisation are provided by this style of leadership, which also aids in preparing future leaders. A democratic leader, according to Choi (2007), is one who emphasises group discussion and participation because it enhances the performance of the followers. Democratic leadership has the potential to increase an organization's effectiveness and performance. As a result, democratic leadership enhances organisational performance (Elenkov, 2002). As a result, it is hypothesised:

H4: Democratic leadership has a significant impact on organisational performance.

Organizations operate in volatile and rapidly changing environments, resulting in complex, multifaceted, and interconnected project streams. This turbulence affects work, organisational designs, and resource allocation, resulting in performance disparities (Messah & Kariuki, 2011). Even with a well-planned strategy, delays in resource availability, political involvement, and economic volatility have all been linked to poor organisational performance (Kobia & Mohamed, 2006). Organizational theory proponents emphasise on the importance of organisations adapting to their surroundings in order to thrive. According to Bagire and Namada (2013), environmental manifestations predict organisational outcomes in part. External environment changes can be beneficial or detrimental to organisational outcomes (Tacheva, 2007). The effects of external environmental factors on organisational processes vary (Tacheva, 2007). When an organization's strategy is sensitive to environmental instability, it achieves superior organisational performance (Ansoff & Sullivan, 1993). The external environment remains a critical factor in strategic management. As a result, it is hypothesised that:

H5: The External Environment mediates the relationship between transformational leadership styles and organisational performance positively.

H6: The external environment mediates the relationship between transactional leadership styles and organisational performance in a positive way.

H7: The External Environment mediates the relationship between Charismatic leadership styles and organisational performance in a positive way.

H8: The external environment mediates the relationship between democratic leadership styles and organisational performance in a positive way

4. Research Methodology

In this investigation, a quantitative methodology was employed. Quantitative research aims to study, test, and explain events by establishing the theoretical underpinnings of them (Oberiri, 2017). The deductive interpretation paradigm serves as the foundation for humanities quantitative approaches. The goal of quantitative research is to produce findings that can be used to quantify the issue and understand how common it is across a bigger population. Quantitative data is frequently collected using structured data collection techniques, such as online surveys, paper surveys, polls done using mobile devices, in-person interviews, and phone interviews. This study employed self-administered questionnaires to gather data since they are among the best and most popular data collecting tools. Self-administered surveys can be mailed or handed to respondents in person. Data were gathered using a questionnaire on a 5-point Likert scale. We collected 403 fully-completed questionnaire forms in total among which 398 were considered for data analysis while 5 questionnaire forms were discarded which were partially filled by the respondents. The data were examined using the Statistical Package for the Social Sciences (SPSS) and partial least squares-structural equation modelling (PLS-SEM). PLS-SEM is a variance-based SEM that utilizes factor analysis with regression analysis. It is also recognised as component-based SEM or PLS path modelling (Rahman et al., 2022). It is used to predict how the exogenous and endogenous latent variables will interact. PLS-SEM relaxes the covariance-based SEM's strict constraints while minimising the limitations of conventional multivariate analytic methods. In addition to proposing a simple model structure, it solves the drawbacks of conventional multivariate analytic methods, such as the multicollinearity issue, non-heteroscedastic error, and the assumption that variables are measured without error. The PLS-SEM relaxes the tight sample size and normality assumptions of covariance-based SEM (Haenlein & Kaplan, 2004; Wong, 2013). Because research constructs are multidimensional and latent, structural equation modelling (SEM) is the most suitable method, which is why PLS-SEM was used in this work (Arshad, Goh, & Rasli, 2014; Bawuro et al. 2019). PLS-SEM evaluation is done in two steps. The structural model (the inside) is evaluated in the second phase, while the measurement model (the outside) is evaluated in the first phase. The convergent validity of the measurement model is evaluated using composite reliability, item factor loadings, and the average variance extracted (AVE) as cited by Zainun et al. (2004); the discriminant validity of the measurement model is evaluated using the Fornel and Larcker (1981) criterion and cross-loadings criterion (Hair et al., 2011, Memon & Rahman, 2013; Wong, 2013). In order to analyse the data with SmartPLS, the conceptual model was drawn with the help of SmartPLS indicating the latent variable with measuring indicators and relationship between them as shown in Figure 2.

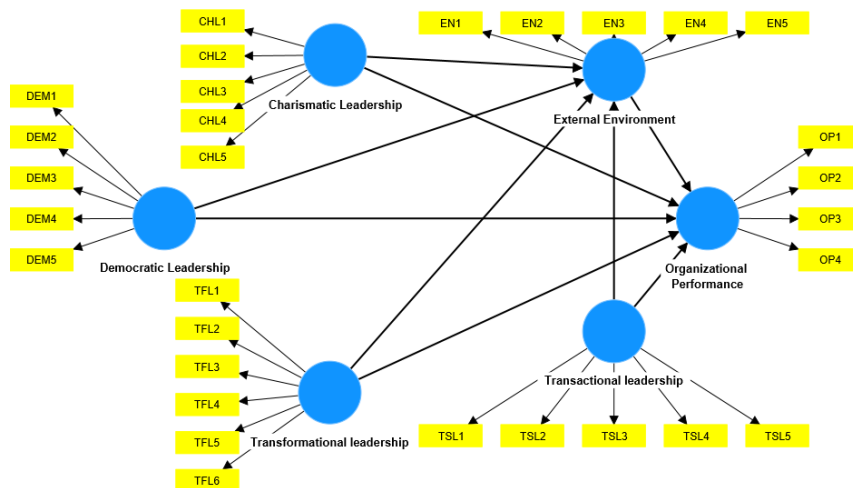


Fig. 2 - Initial PLS-SEM model

5. Convergent Validity of the Measurement Model

First step of the PLS-SEM analysis the convergent validity assessment of the measurement model. It involves reliability of the indicators as well as the reliability of the constructs. Indicators are evaluated based on the loading value where the indicators with loading of 0.7 and above are considered suitable. Table 1 shows the loading of the indicators used for model development as obtained through SmartPLS model.

Table 1 - Outer loading of the indicators

	Charismatic Leadership	Democratic Leadership	External Environment	Organizational Performance	Transformational Leadership	Transactional Leadership
CHL1	0.81					
CHL2	0.829					
CHL3	0.808					
CHL4	0.798					
CHL5	0.796					
DEM1		0.813				
DEM2		0.85				
DEM3		0.857				
DEM4		0.815				
DEM5		0.849				
DEM6		0.84				
EN1			0.827			
EN2			0.887			
EN3			0.838			
EN4			0.796			
EN5			0.769			
OP1				0.863		
OP2				0.871		
OP3				0.829		
OP4				0.816		
OP5				0.831		
TFL1					0.75	
TFL2					0.852	
TFL3					0.843	
TFL4					0.871	
TFL5					0.768	
TFL6					0.823	
TSL						0.839
TSL2						0.853
TSL3						0.869
TSL4						0.808
TSL5						0.811

Table 1 shows that all the indicators used for model development in this study have loading values above 0.7. Hence, these indicators can be used for further analysis and assessment of reliability of the measurement model. Reliability is the extent to which a scale produces accurate and stable measurements over time. Additionally, it demonstrates how the scale is error-free (Pallant, 2011; Creswell, 2014). Despite the fact that Cronbach's alpha is the most widely used reliability indicator (Awang, 2012), composite reliability is preferred when analysing PLS-SEM. The composite dependability needs to be at least 0.7 for the measurement model to be considered reliable (Wong, 2013). To achieve reliability, though, a composite reliability of 0.6 is also thought to be sufficient, especially for recently developed scales. Table 2 displays the measuring models' convergent validity.

Table 2 - Measurement model's convergent validity

Variables	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Charismatic Leadership	0.867	0.904	0.653
Democratic Leadership	0.915	0.934	0.701
External Environment	0.881	0.914	0.68
Organization Performance	0.898	0.924	0.709
Trans Leadership	0.892	0.921	0.699
Transf Leadership	0.901	0.924	0.671

The table 2 above displays the convergent validity outcome. The AVE values for the entire construct are higher than 0.5 which is the threshold value for AVE (Rahman et al. 2013). Additionally, the composite reliability can vary between 0 and 1 (Memon et al. 2013). For satisfactory model, Composite Reliability (C.R.) and all Cronbach's Alpha values are higher than 0.7, the optimum value. As a consequence, each measurement model complied with the criterion for convergent validity.

6. Discriminant Validity of the Measurement Model

Discriminant validity is used to assess how much a measurement model differs from other study constructs. A number of measuring models are compared and evaluated by the structural model (Memon & Rahman, 2013). Discriminant validity is assessed using the Fornell, Larcker, and Cross-loading criterion. Fornell and Larcker's (1981) criterion for demonstrating discriminant validity requires that each measurement model's AVE be higher than the model's correlation with any other model in the structural model. Fornell and Larcker test suggests that the square root of each outer model's AVE should therefore be bigger than the correlation with any other component (Hair et al., 2014, Khahro et al. 2021). The discriminant validity test findings from Fornell and Larcker are shown in Table 3.

Table 3 - Discriminant validity using Fornell–Larcker criterion

	CHL	DEM	EN	OP	TSL	TFL
Charismatic Leadership	0.808					
Democratic Leadership	0.713	0.838				
External Environment	0.704	0.716	0.824			
Organization Performance	0.649	0.81	0.706	0.842		
Transac. Leadership	0.714	0.73	0.638	0.688	0.836	
Transform. Leadership	0.662	0.676	0.647	0.601	0.743	0.819

Table 3 reveals that the values in the diagonals is higher than non-diagonal value which shows that square root of AVE values of each construct are higher in itself than other constructs which confirms the discriminant validity of the mode. The cross-loading test is the second test to evaluate discriminant validity. The standard for cross-loading is endorsed by Chin (1998). The requirement indicates that cross-loading on other constructs must be larger than item loading on their underlying constructs (Hair et al., 2014; Wong, 2016). Results of the cross loading test for the model are presented in Table 4.

Table 4 - Cross-loading assessment

	CHL	DEM	EN	OP	TSL	TFL
CHL1	0.81	0.578	0.572	0.534	0.57	0.583
CHL2	0.829	0.56	0.596	0.494	0.55	0.528
CHL3	0.808	0.553	0.527	0.507	0.562	0.514
CHL4	0.798	0.568	0.573	0.474	0.575	0.544
CHL5	0.796	0.618	0.575	0.604	0.624	0.508
DEM1	0.558	0.813	0.589	0.69	0.614	0.577
DEM2	0.54	0.85	0.61	0.707	0.57	0.526
DEM3	0.615	0.857	0.572	0.679	0.619	0.549
DEM4	0.635	0.815	0.615	0.651	0.612	0.6
DEM5	0.609	0.849	0.615	0.684	0.608	0.541
DEM6	0.63	0.84	0.596	0.658	0.645	0.605
EN1	0.541	0.534	0.827	0.603	0.508	0.551
EN2	0.622	0.6	0.887	0.621	0.514	0.529
EN3	0.549	0.583	0.838	0.547	0.534	0.561
EN4	0.595	0.607	0.796	0.554	0.534	0.523
EN5	0.59	0.624	0.769	0.583	0.538	0.503
OP1	0.566	0.746	0.654	0.863	0.554	0.497
OP2	0.554	0.719	0.617	0.871	0.561	0.493

OP3	0.527	0.683	0.528	0.829	0.57	0.521
OP4	0.519	0.61	0.546	0.816	0.592	0.508
OP5	0.567	0.645	0.623	0.831	0.629	0.515
TSL	0.535	0.609	0.525	0.627	0.839	0.648
TSL2	0.596	0.585	0.551	0.57	0.853	0.616
TSL3	0.617	0.626	0.555	0.595	0.869	0.591
TSL4	0.631	0.632	0.511	0.578	0.808	0.649
TSL5	0.612	0.601	0.524	0.5	0.811	0.605
TFL1	0.536	0.504	0.538	0.453	0.524	0.75
TFL2	0.549	0.574	0.567	0.523	0.644	0.852
TFL3	0.545	0.529	0.529	0.491	0.622	0.843
TFL4	0.565	0.635	0.555	0.533	0.642	0.871
TFL5	0.51	0.54	0.467	0.478	0.573	0.768
TFL6	0.547	0.532	0.517	0.468	0.644	0.823

In the table 4, the loadings of the items on their structures are represented by bold values. The results demonstrate that everything cross-loads with other constructs more so than with the base construct. When using this criterion, the measurement models acquire discriminant validity.

7. Evaluation of Structural Models

The structural (inner) model is evaluated in the second stage of the PLS-SEM evaluation criteria (Hair et al., 2014). The causal relationships connecting the various measurement models are identified by the structural model (Hair et al., 2014). The relationships that are discussed here are meant to address study goals and support the research hypotheses. The main goal of structural model evaluation is to assess the model's precision and ability to forecast endogenous constructs. The bootstrapping method is used to assess the path coefficients and their significance, the coefficients of determination (R^2) of the endogenous construct, the effect sizes (Cohen's f^2) of the exogenous measurement model, the predictive relevance (cross-validated redundancy, Q^2), and the overall goodness of fit (GoF) of the model (Hair et al., 2011; Hair et al., 2014; Wong, 2016). Figure 3 displays the structural model whereas Figure 4 displays the results of bootstrapping for t-values and hypothesis tests.

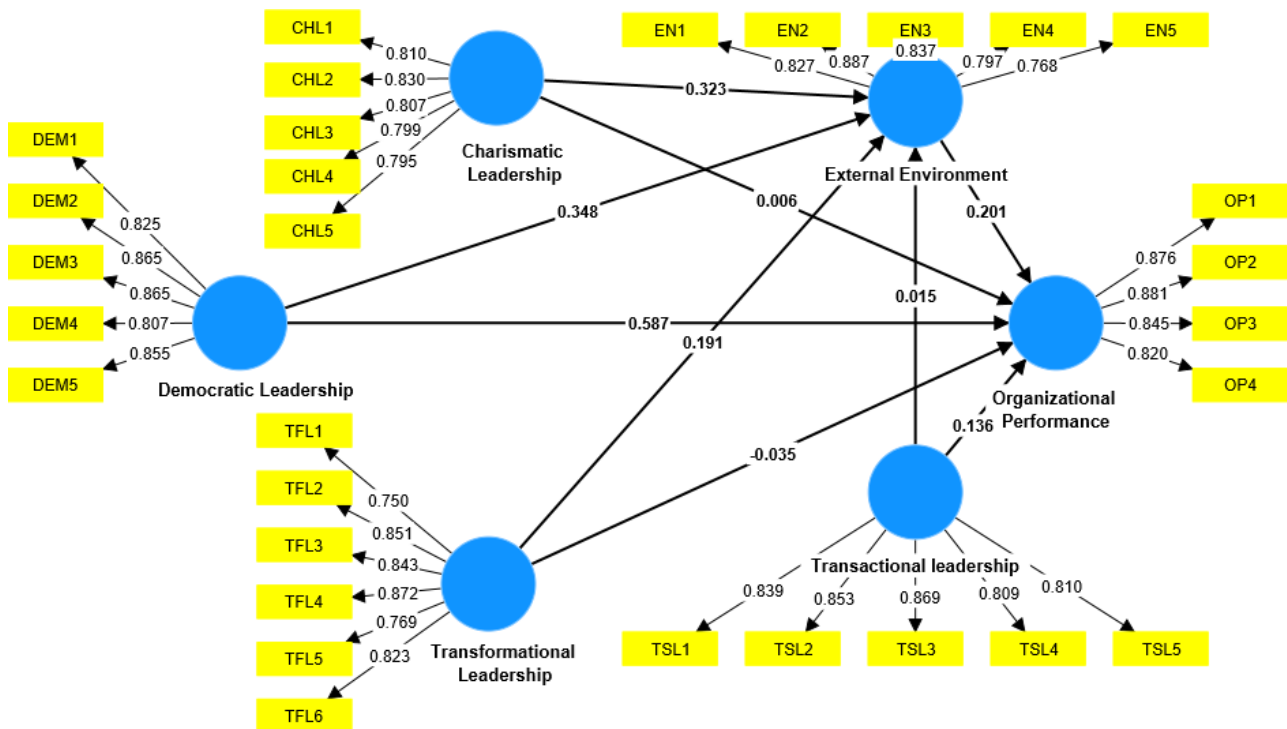


Fig. 3 - Final model

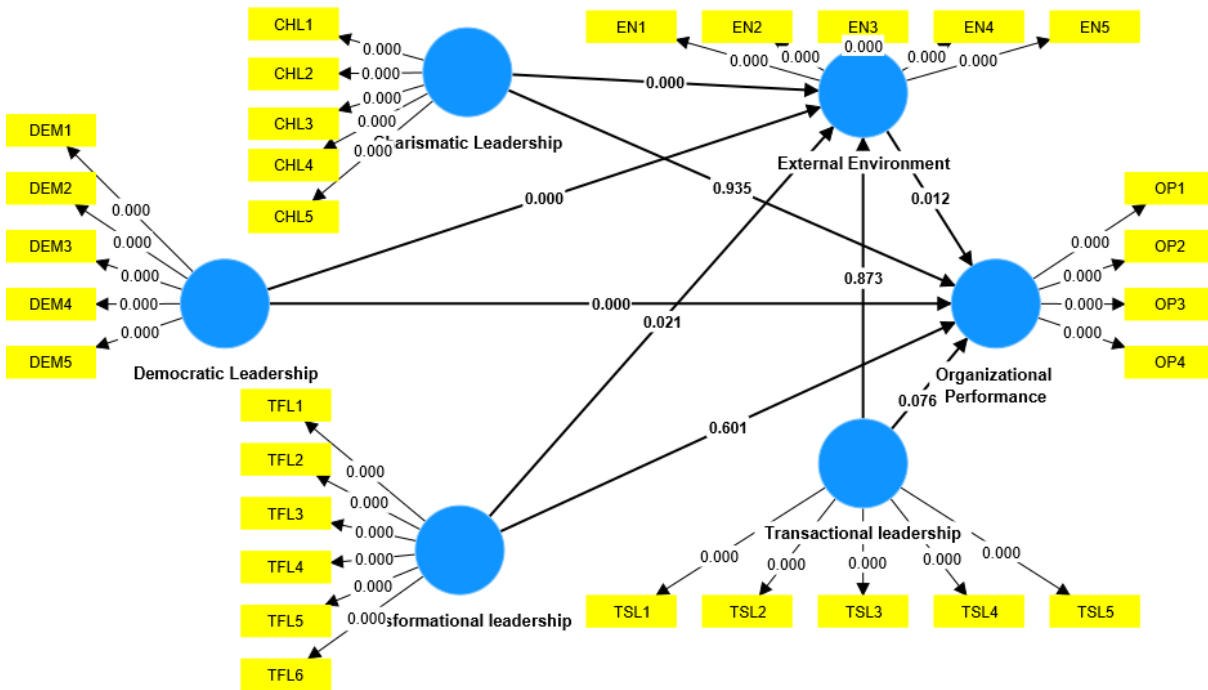


Fig. 4 - Final model T-statistics

Based on the figure 4, the P-Values of the relationship between the independent variables (transformational leadership, transactional leadership, charismatic leadership, and democratic leadership) and the dependent variable (organization performance) are shown in table 5 for hypothesis testing of direct effect through the t-values and p-values.

Table 5 - Result of the direct relationship among variables

Hypothesis	Description of the hypothesis	P-Values	Remark
H ₁	Transformational Leadership has significant effect on organizational performance.	0.427	Not Supported
H ₂	Transactional leadership has a significant effect on organizational performance.	0.034	Supported
H ₃	Charismatic leadership has a significant effect on organizational performance.	0.970	Not Supported
H ₄	Democratic leadership has a significant effect on organizational performance.	0.000	Supported

The findings in Table 5 indicate that transactional leadership significantly affects organizational performance because the p-value for H₂ is 0.034. The same can be said for H₄, where the p-value is 0.000, demonstrating that democratic leadership significantly affects organizational performance. The p-value for H₁ is 0.427, indicating that transformational leadership has a non-significant impact on organizational performance, while the p-value for H₃ is 0.970, indicating that charismatic leadership also has a non-significant impact. Similarly, table 6 displays the P-Values of the mediator (external environment) on the relationship between the independent variables (transformational leadership, transactional leadership, charismatic leadership, and democratic leadership) and the dependent variable (organizational performance).

Table 6 - Result of the indirect relationship with the mediator

Hypothesis	Description of the hypothesis	P-Values	Remark
H5	External Environment positively mediates the relationship between transformational leadership style and organisation performance.	0.105	Not Supported
H6	External Environment positively mediates the relationship between transactional leadership style and organisation performance.	0.891	Not Supported
H7	External Environment positively mediates the relationship between charismatic leadership style and organisation performance.	0.015	Supported
H8	External Environment positively mediates the relationship between democratic leadership style and organisation performance.	0.031	Supported

The findings in Table 6 indicate that the p-value for H₇ is 0.15, indicating that the external environment mediates the association between charismatic leadership styles and organizational performance in a way that is favorable. Similar to H₈, H₈'s p-value is 0.031, demonstrating that external environment has a constructive role in mediating the link between democratic leadership practices and organizational success. The association between transformational leadership styles and organizational performance, however, is not positively mediated by the external environment, as indicated by the p-value for H₅ of 0.105. Additionally, H₆'s p-value of 0.891 indicates that the external environment does not positively mediate the association between transactional leadership style and organizational success.

PLS-SEM aims to predict the causal relationship between endogenous and exogenous dimensions in research, which is usually expressed as a hypothesis. When the model is run, the path coefficients are utilized to verify the assumptions (Hair et al., 2014). Path coefficients are used to assess how closely the structural model's research constructs are linked. When determining the strength of a link, the coefficients are employed, with values close to 1 indicating a very strong connection (Hair et al., 2014). Using t-statistics, the bootstrapping procedure calculates the significance of the path (Kock, 2014). Internal consistency can be determined by examining the path coefficients and their significance levels (Hair et al., 2011). The quality of the inner model must be ensured by the size of the route coefficients (Wong, 2016). In Table 7, the route coefficients are displayed.

Table 7 - Path coefficients

		Path coefficient	T Values	P Values	Remark
H ₁	Transformational Leadership -> Organization Performance	0.055	0.795	0.427	Not Supported
H ₂	Transactional Leadership -> Organization Performance	0.178	2.123	0.034	Supported
H ₃	Charismatic Leadership -> Organization Performance	0.003	0.038	0.97	Not Supported
H ₄	Democratic Leadership -> Organization Performance	0.548	6.818	0.000	Supported
H ₅	Transformational Leadership -> External Environment -> Organization Performance	0.044	1.623	0.105	Not Supported
H ₆	Transactional Leadership -> External Environment -> Organization Performance	0.003	0.137	0.891	Not Supported
H ₇	Charismatic Leadership -> External Environment -> Organization Performance	0.075	2.443	0.015	Supported
H ₈	Democratic Leadership -> External Environment -> Organization Performance	0.082	2.161	0.031	Supported

Table 7 shows that the supported hypotheses (H₂, H₄, H₇, and H₈) have high path values whereas the unsupported hypotheses (H₁, H₃, H₅, and H₆) have low path values, supporting the conclusions of the prevision sections' hypotheses. The generated model's explanatory ability is also evaluated by computing the coefficient of determination (R²). R² quantifies how much variation the model describes and is a measure of the model's effectiveness. The coefficient of determination, or R², also known as the overall external construct contribution to explaining or forecasting the variance of the endogenous construct in the structural model, is shown in Figure 5.

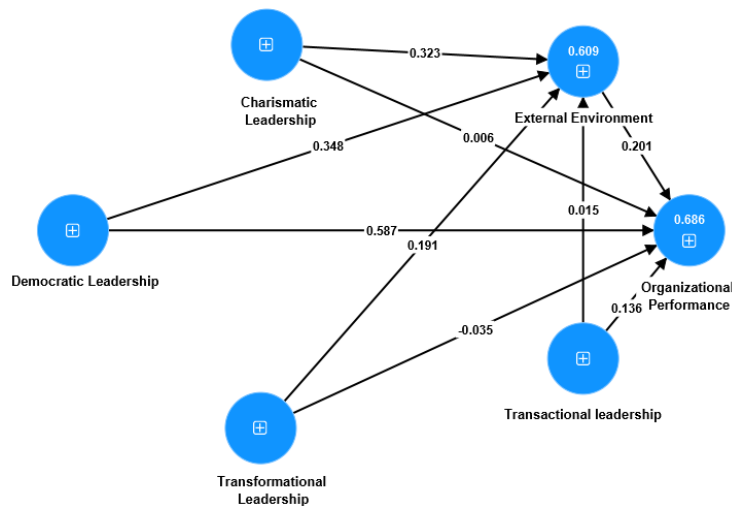


Fig. 5 - Structural model

As more variance is anticipated or explained, the model's quality rises, and vice versa (Hair et al., 2011; Hair et al., 2014; Wong, 2016). The acceptable level of R² is not standardised, although a variety of researchers have offered suggestions for what should be thought to be reasonable and which vary by subject. For example, R² values of 0.25, 0.50, and 0.75 are categorised as poor, moderate, and high, respectively (Hair et al., 2014; Wong, 2016). An R² value of 0.2 is regarded as being strong in the study of consumer behaviour, according to Hair et al. (2014). The R² levels in the study were determined using these rules. Figure 5 and Table 8 shows the R² for the completed model.

Table 8 - R² evaluation

	R Square	R Square Adjusted
External Environment	0.609	0.605
Organization Performance	0.686	0.682

The coefficients of determination (R²) for the study structural model are shown in Table 8. R² values for the external environment and organisational performance are 0.609 and 0.686 respectively. To determine whether the research R² is significant, apply the previously mentioned rule of thumb. This implies that the number is higher than average, implying that the models' predictions are highly accurate (Hair et al., 2014). R² is important in the SEM model, but it does not show how external structures affect humans. Route coefficients and R² shows the individual influence of each path in the structural model, as well as the overall contribution of all exogenous constructs to variance prediction. They do not, however, show the relative contributions of each exogenous construct to R². The effect size (f²) is used to calculate the individual contribution of each external component to the R² (Hair et al., 2011). Chin's (1998) mentioned that impact size represents the relative impact of various exogenous constructions on endogenous constructs by estimating changes in the R-squared (s). Cohen's f² is used to calculate the magnitude of each structural model component's effect. The formula can be used by removing a specific construct from the model and examining the results (Hair et al., 2014).

Effect Sizes:
$$f^2 = \frac{R^2_{incl} - R^2_{excl}}{1 - R^2_{incl}}$$

Where:

- f² = effect sizes
- R² incl = R² inclusive (R² with a particular construct included in the model)
- R² excl = R² excluded (R² with a particular construct excluded from the model)
- 1= Constant

Almansoori et al. (2021) cited that Cohen (1988) has suggested effect size as low if f² = 0.02, medium if f² = 0.15, and high when f² = 0.35. The effect sizes of various research constructs computed with SmartPLS are as in table 9.

Table 9 - Effect sizes (f²)

	Organization Performance	Effect size
Charismatic Leadership	0.030	Small
Democratic Leadership	0.337	High
External Environment	0.072	Small
Transactional Leadership	0.034	Small
Transformational Leadership	0.040	Small

Table 9 shows that each construct's f² value is greater than 0.02, indicating that the endogenous constructs met the f² requirements. The predictive power of a structural model is another important PLS modelling criterion. Cross-validated redundancy is used to assess the model's predictive power. All indicators in the outer model of endogenous constructs had their data points examined to see if they could be accurately predicted using the stone-predictive Geisser's relevance (Q²) (Wong, 2016). When using the sample re-use methodology, a portion of the data matrix is removed, model parameters are calculated, and the remainder is forecasted using the estimated model parameters (Hair et al., 2011; Hair et al., 2014). In order to have effective predictive relevance, this quality evaluation criterion requires that the cross-validated redundancy (Q²) value be a positive integer greater than 0 (Chin, 1998). The study's final models are evaluated using the blindfolding approach and Smart-PLS software to calculate cross-validated redundancy (Q²) based on the submission (Ringle, Wende & Becker, 2015). Table 10 shows the results of the blindfolding strategy for predictive relevance of the model.

Table 10 - Predictive relevance

	SSO	SSE	Q ² (=1-SSE/SSO)
External Environment	1990	1199.329	0.397
Organization Performance	1990	1024.153	0.485

The cross-validated redundancy of the structural model is shown in Table 10. Q² values for endogenous constructions are greater than 0. This demonstrated that the study model was extremely useful for forecasting (Chin, 1998). Criteria for PLS-SEM evaluation rate the accuracy of the structural (inner) model (Hair et al., 2014). It determines the cause-and-effect linkages among the measurement models of the structural model. The linkages described are intended to assist researchers in resolving issues and testing their hypotheses. Most often, models are ranked according to how effectively they predict endogenous constructs using structural model assessment.

8. Global Fitness of the Model

Unlike covariance-based structural equation modelling, PLS-SEM does not have a widely accepted global fitness of the model. The Goodness of Fit (GoF) metric is used to calculate global fitness (Vinzi et al., 2010). Tenenhaus et al. (2004) proposed the "GoF" index to address this issue. The GoF value is calculated by taking the geometric mean of the average communality (AVE) index and multiplying it by the average coefficient of determination (R²). The following formula can be used to calculate it:

$$GoF = \sqrt{AVE^2 \times R^2}$$

The GoF index attempts to explain the PLS model's performance at both the measurement and structural levels, with an emphasis on the model's overall prediction performance (Memon & Rahman, 2013). The structural model is represented by R² in the formula, whereas the quality of the index's measurement models is addressed by AVE². A GoF index of 0.1, 0.25, or 0.36 denotes small, medium, or large (Akter et al., 2011). The GoF index for the model is shown below.

$$GoF = \sqrt{0.685 \times 0.697}$$

$$GoF = 0.691$$

The model's GoF is 0.691 which is considered high as suggested by (Akter et al. 2011), indicating that the research model is of high quality.

9. Discussion and Conclusion

The direct impact of leadership styles on organisational performance was examined in this study. According to the analysis's findings, transformational and charismatic leadership philosophies do not significantly affect organisational performance in the United Arab Emirates, while transactional and democratic leadership philosophies do. These results support Shao's (2019) claim that leaders' management styles have an impact on their organisations' performance because they put these traits into practise at work to improve productivity. According to Uchenwamgbe (2013), transactional leaders have a significant impact on organisational performance because they prioritise rewarding their workforce through promotions and income increases even though they expect hard work from them. Since democratic leadership style permits sharing decision-making with employees, which creates a collective responsibility among all employees to improve organisational performance. Democratic leadership style has a significant impact on organisational performance. When the relationship between the identified leadership styles and organisational performance was investigated, it became clear that the external environment had a positive mediating role in the relationship between charismatic leadership styles and organisational performance. Comparably, the relationship between democratic leadership philosophies and organisational performance is positively mediated by the external environment. However, the relationship between transformational leadership philosophies and organisational performance is not positively mediated by the external environment. Additionally, the relationship between transactional leadership style and organisational performance is not positively mediated by the external environment.

These results demonstrated that the relationship between charismatic leadership style and organisational performance is fully mediated by the external environment, whereas the relationship between democratic leadership style and organisational performance is partially mediated by the external environment. The mediation effect of the external environment is consistent with Messah and Kariuki's (2011) findings that the organisation operates in a complex environment due to the external environment's rapid change. As a result, it is crucial for the leadership style to adapt to these changes. Therefore, even when a clearly formulated strategy is in place, poor organisational performance has been linked to delays in resource availability, political participation, and economic volatility. Organization theory proponents emphasise that for an organisation to succeed, it must adapt to its surroundings. Bagire and Namada (2013)

assert that environmental manifestations influence organisational outcomes in part. External environment changes could help or hurt organisational results (Tacheva, 2007). Organizational operations are impacted by various external environmental factors (Tacheva, 2007). An organisation will perform better when its strategy is sensitive to environmental volatility (Ansoff & Sullivan, 1993). Strategic management still heavily relies on the external environment.

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