



The Impact of Executional Excellence Practices on Organizational Performance: Knowledge Application as a Mediator (a Field Study in Mobile Network Operators in Yemen)

أثر ممارسات التميز التنفيذية على الأداء المؤسسي: تطبيق المعرفة كمتغير وسيط
(دراسة ميدانية على مشغلي شبكة الهاتف النقال في اليمن)

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الملخص:

الهدف من هذه الدراسة هو تحليل أثر ممارسات التميز التنفيذية وفق نموذج المؤسسة الأوروبية لإدارة الجودة على الأداء المؤسسي لمشغلي شبكات الهاتف النقال في اليمن وتحليل الدور الوسيط لتطبيق المعرفة في هذه العلاقة. ولتحقيق هذا الهدف، تم اعتماد المنهج الكمي لدراسة العلاقة وتحديد التأثير بين المتغيرات ودراسة نموذج البحث. تم تطوير استبيان لجمع البيانات وتوزيعه على المستهدفين من المدراء وقادة الفرق في أربع شركات من مشغلي شبكة الهاتف النقال في اليمن. وكان ما مجموعه 219 استبياناً صالحاً للتحليل بمعدل استجابة 86%. استخدمت هذه الدراسة نمذجة المعادلات الهيكلية بالمربعات الصغرى الجزئية (PLS-SEM) للتحقق من صحة نموذج البحث من خلال برنامج SmartPLS. وخلصت الدراسة الى وجود علاقة إيجابية ذات دلالة إحصائية بين ممارسات التميز التنفيذية والأداء المؤسسي، ووجود وساطة تكميلية لتطبيق المعرفة في العلاقة بين ممارسات التميز التنفيذية والأداء المؤسسي. تشير النتائج إلى أن تطبيق المعرفة يعزز تأثير ممارسات التميز التنفيذية على الأداء المؤسسي. وتشير النتائج إلى أهمية مواءمة تطبيق المعرفة مع إمكانات الأداء المؤسسي العالي من ممارسات التميز المؤسسي. وتشير الدراسة الى ان ممارسات التميز التنفيذية تتطلب ممارسات تطبيق المعرفة لرفع الأداء المؤسسي.

الكلمات المفتاحية: ممارسات التميز التنفيذية، تطبيق المعرفة، الأداء المؤسسي، نمذجة المعادلات الهيكلية بالمربعات الصغرى الجزئية.

Abstract:

The purpose of this study is to analyze the impact of the European Foundation for Quality Management Excellence Model (EFQM-EM) in terms of the executional excellence practices (EEPs) on organizational performance (OP) in the mobile network operators (MNOs) in Yemen, and analyze the mediating role of knowledge application (KAp) in this relationship. A quantitative approach was adopted to explore this relationship and study the conceptual model. A survey was developed to gather empirical data and distributed to mid and high-level management participants across four MNOs. A total of 219 questionnaires were valid for analysis with a response rate of 86 percent. This study employed the Partial Least Squares Structural Equation Modeling (PLS-SEM) to validate the research model through SmartPLS software. The results showed a significant impact of EEPs on OP, and a complementary mediation by KAp in the relationship between the EEPs and OP. The findings indicate that KAp promote the impact of the EEPs on OP. The findings indicate the importance of aligning knowledge application with high performance enablers, i.e., the excellence practices. The study elucidates that executive excellence practices require knowledge application practices to enhance organizational performance.

Keywords: Executional Excellence Practices, Knowledge Application, Organizational Performance, Partial Leased Squire-Structure Equation Modelling.

1. Introduction

Evolving organizations have shifted from the focus on resources to the focus on intellectual capital (North & Kumta, 2018). And given the pivotal role, the Mobile Network Operators' (MNOs) market have in driving economies with a value of \$4.5 trillion to the global economy in 2021 (GSMA, 2022), while in Yemen the market is adding 7% of the country's economic output (Fadhl & Sacchetto, 2023). Hence, the strategic embrace of a managerial model, a central focus on the integration of knowledge and quality practices, has become essential (Qasrawi et al., 2017; Abbas & Kumari, 2021).

The concept of quality has evolved from a narrow perspective, i.e., statistical quality control, to a broader one known as Total Quality Management (TQM); and more recently, as Organizational Excellence (OE) (Fonseca and Domingues, 2018). The OE concept has led to frameworks such as the EFQM Excellence Model (EFQM-EM) in Europe, the Deming Prize in Japan, and the Baldrige Performance Excellence Framework (BPEF) in the USA (Lasrado, 2018). Among these models, the EFQM-EM, introduced in 1991, has emerged as a global adopted framework to enhance quality and performance (Lasrado, 2018). Organizations are widely embraced organizational excellence models to guide their business strategies (Lasrado, 2018), address the needs of stakeholders (Ferro-Soto et al., 2018), and optimize resource utilization (Daft, 2021). OE models take a holistic view of the organization, and serve as a model for achieving competitive advantage through excellent management and execution of strategies in response to changing environments (Lasrado, 2018).

The latest EFQM excellence model 2020 includes multiple dimensions. It comprises the directional dimension, which answers the question: "Why does the organization exist?", followed by the execution dimension, which answers the question: "How does the organization intend to deliver its purpose and strategy?", and results, which answers the

question: "What has it actually achieved to date and what it intends to achieve tomorrow?" (EFQM, 2021). The EFQM excellence model is a self-assessment tool that supports organizations in identifying quality issues and guiding their performance enhancement initiatives.

Organizational excellence frameworks play a vital role in the integration of knowledge management initiatives (North & Kumta, 2018). Knowledge management concept was initially introduced by Nonaka and Takeuchi (1995) which focuses on the utilization of knowledge. knowledge is an intangible asset that is inherently challenging to replicate, thereby serving as a critical source for competitive advantage (Lim et al., 1999). North and Kumta (2018) assert that the systematic application of knowledge within an organization, empowering organization to achieve strategic and operational goals. To realize effective KM, according to Dalkir (2017), organizations must engage in activities like utilizing knowledge strategically to enhance organizational performance.

The organizational performance (OP) is a multidimensional concept. Although numerous studies have shown a correlation between implementing management practices and improved performance, however, predicting outperformance over organizations' competitors remains challenging (Keller, 2011). OP can be conceptualized as a system that harmonizes strategy, goals, objectives, and internal operations with external demands to maximize organizational results (Kirkman, 1999).

For high organizational performance in the telecommunication context, it is crucial to prioritize KM practices while fostering innovation and adopting a market-oriented approach (Ullah et al., 2019). For instance, despite the temptation to adopt KM technology, the telecommunications provider "Ericsson Canada Inc." exercised prudence by reflecting on the company culture, values, and personnel before adoption (Dalkir, 2017). To encourage employees to embrace and effectively utilize KM practices, according to Ullah et al. (2019),

management should consider transforming the work culture conditions.

In this context, knowledge is seen as an intangible strategic resource — from the knowledge-based view (KBV) theory (Grant, 1996). And organizations can leverage knowledge to enhance their performance (Obeso et al., 2020; and Bocoya-Maline et al., 2023). Ooi (2014) emphasizes knowledge's intangible nature as an asset that organizations harness for competitive advantage. However, the captured knowledge, from the General Systems Theory (GST) perspective, is proven to embed enablers, i.e., the management systems (Mann et al. 2012, as cited in Lasrado, 2018) to operationalize and produce outputs. Aligning with the definition of organizational excellence (OE) put forth by the American Society for Quality [ASQ] (2022), these enablers are characterized by “ongoing efforts to establish an internal framework of standards and processes” (n.d.). Therefore, it is imperative to understand the antecedents and mechanisms influencing knowledge application to attain high organizational performance.

In light of the increasing integration of excellence management practices and knowledge management (Taher, 2016; and Criado-García et al., 2019), it is assumed that organizations lacking effective knowledge application may fail to leverage their practices for value creation and organizational success (Payal et al., 2019; Cordeiro et al., 2021; Namdarian et al., 2021). Organizations may need to focus on their critical capabilities that consistently provide superior value over the long term (Goetsch & Davis, 2016), to reach organizational excellence. Accordingly, the present study delves into the role of knowledge application (KAp) as a potential mediator within the relationship between the executional excellence practices (EEPs) — according to the new EFQM 2020 execution enabler (Turisová et al., 2021) - and OP.

While previous studies examine the OE practices-KM nexus from different perspectives, such as KM-EFQM issues and OP (Criado-García et al., 2019), this study distinguishes itself by incorporating the new EFQM 2020 enabling

dimension, i.e., the executional excellence practices (EEPs) (Turisová et al., 2021), and OP mediated by KAp in a single comprehensive model. Examining the effectiveness of KAp in a highly competitive MNOs market in Yemen.

2. Problem Statement

The MNOs market faces performance challenges with penetration below the regional average rates and limited mobile broadband uptake (International Telecom Union [ITU], 2018). Yemen's telecommunication sector lags behind regional and global trends in terms of accessibility, quality, and affordability (Fadhl and Sacchetto, 2023).

In this study, the general problem is addressed as that MNOs are facing certain performance obstacles in adopting state-of-the-art concepts to develop their performance and meet stakeholders' expectations. The specific assumed business problem is that some MNOs lack the management models to identify and employ practices for optimal investment and application of resources (e.g., intangible knowledge) which lead to excellence in performance. And from this perspective, this study intends to explore these issues and assesses the executional excellence practices and their impact on the MNOs' performance, and how this impact can be mediated by knowledge application.

3. Research Questions

By understanding the impact of the executional excellence practices and knowledge application on MNOs performance, the obstacles hindering their superior performance can be identified. Accordingly, the current study aims to answer the following sub-questions:

- 1) Is there an impact of EFQM-EM EEPs on KAp at MNOY?
- 2) Do KAp impact on OP at MNOY?
- 3) Is there an impact of EFQM-EM EEPs on OP at MNOY?
- 4) Do KAp mediates the relationship between the EFQM-EM EEPs and OP at MNOY?

4. Research Objectives

The study aims at examining the impact of the executional excellence practices on organization performance mediated by knowledge application. And based on the study problem statement and questions, the following objectives were developed:

- 1) To examine the impact of EFQM-EM EEPs on KAp at MNOY.
- 2) To examine the KAp impact on OP at MNOY.
- 3) To examine the impact of EFQM-EM EEPs on OP at MNOY.
- 4) To examine the mediating role of KAp between the EFQM-EM EEPs and OP at MNOY.

5. Research Hypotheses

Empirical research suggests a significant relationship between organizational excellence and performance, with a consensus being that higher levels of organizational excellence can result in enhanced organizational performance (Calvo-Mora et al., 2020; Al-Darmaki and Al-Dhaafri, 2018; and Tickle et al., 2016). Additionally, knowledge management has also been recognized as a critical factor in enhancing organizational performance (Cordeiro et al., 2021, Namdarian et al., 2021; and Payal et al., 2019).

Guided by the General Systems Theory (GST), the EEPs can integrate various organizational components to achieve effective performance outputs. To achieve this goal, organizations engage stakeholders (Ferro-Soto et al., 2018), create sustainable value (Calvo-Mora et al., 2020; and Ilyas & Osiyevskyy, 2022), and drive performance and transformation (De Waal & Heijtel, 2016; and Sousa-Zomer et al., 2020).

The resource-based view theory provides a valuable framework to interpret the relationship between excellence practices that influence knowledge application acting as a mediator, which in turn impacts OP. Executional excellence practices are regarded as valuable resources and capabilities that can effectively enhance OP (Calvo-Mora et al., 2020). Effective knowledge application plays a role in enhance

the utilization of these resources (Abbas & Kumari, 2021).

Given these varying perspectives and the supportive evidences, the following hypotheses were proposed to empirically examine the relationships:

H1: There is a significant impact of EEPs on KAp at MNOY.

H2: There is a significant impact of KAp on OP at MNOY.

H3: There is a significant impact of EEPs on OP at MNOY.

H4: There is a significant mediating role of KAp between EEPs and OP at MNOY.

6. Research Importance

The significance of the study is derived from the importance of OP in the MNO market that seeks to achieve outstanding performance through excellence practices, taking MNOs in Yemen on a journey from their current state to the desired future aspirations. Furthermore, despite the synergies surrounding the integration between the excellence practices or knowledge management in the pursuit of outstanding organizational performance (Bocoya-Maline et al., 2023), literature remains notably deficient in establishing a clear nexus between the execution dimensions, i.e., engaging stakeholders, creating sustainable value, and driving performance & transformation (EFQM, 2021) and organizational performance through knowledge application within MNOs in Yemen.

This paper makes noteworthy contributions to the existing body of literature on knowledge management and organizational excellence. It provides empirical evidence that articulates the underlying processes of KAp by which it mediates the relationship between the EFQM EEPs and organizational performance, thereby deepening insights and expanding upon underexplored dimensions within the existing literature. This is the key theoretical contribution of this study. Additionally, it responds to calls for a comprehensive analysis of the mechanisms by which sub-dimensions of EFQM excellence model exert their influence on organizational performance (Payal, 2019). Moreover, this paper

provides practical insights for MNOs, derived from the findings presented. It defines opportunities for optimizing organizational excellence through knowledge application. Accordingly, this study contributes to literature within the domains of organizational excellence, knowledge application, and organizational performance.

7. Scope of the Research

The study focuses mainly on three factors: subject, place, and people, as illustrated herein:

- a) Subject Scope: The study is limited to investigating the impact of the EEPs on OP through the mediating role of KAp at MNOs in Yemen. The study is limited to the variables' following dimensions:
 - EEPs dimensions: Engaging Stakeholders, Creating Sustainable Value, and Driving Performance & Transformation
 - OP dimensions: Stakeholder Perceptions, and Strategic & Operational Performance.
- b) Place Scope: The study is limited to MNOs in Yemen.
- c) Human Scope: The study is limited to participants in mid and high-level management at the MNOY. This includes the supervisors, managers, vice presidents, and general managers.

8. Operational Definitions

Operationally define the study variables increases the credibility of the study methodology as well as lend the study a valid and reliable measurement of variables (Sekaran & Bougie, 2016). In present study, three variables and six dimensions are operationally defined as follows:

1- Organizational Performance (OP): OP is referred to as “A measure of how well organizations are managed and the value they deliver to customers and other stakeholders” (Antony & Bhattacharyya, 2010 p. 43). For the purpose of the study, OP is defined as the ability of the MNOY to achieve their goals and match their stakeholders' expectations through measuring stakeholder perceptions and strategic & operational performance.

a) Stakeholder Perceptions (SP): SP refers to the feedback obtained by past or current key stakeholders about their personal experiences (perceptions) of dealing with the organization (EFQM, 2021). For the purpose of the study, SP is defined as the ability of the MNOY to collect and measure stakeholders' opinions, beliefs and expectations, to formulate, direct, & execute their strategy as well as predict future required performance.

b) Strategic and Operational Performance (SOP): SOP is referred to the results that indicate the organization's fulfillment of its purpose, deliver the strategy, create sustainable value and fitness for the future (EFQM, 2021). To serve the purpose of the study, SOP is defined as the ability of MNOY to perform well in EFQM 2020 proposed indicators that includes the achievement in: delivering the MNO purpose and creating sustainable value, financial performance, fulfilment of key stakeholders' expectations, strategic objectives, driving performance & transformation, as well as using predictive measures for the future. (EFQM, 2021)

2- Knowledge Application (KAp): KAp is defined as the process through which knowledge is applied to resolve issues, generate novel ideas, produce new products, and enhance organizational performance (Ting et al., 2021). For the purpose of this study, KAp is defined as the ability of the MNOY to absorb and apply newly obtained knowledge into practice by making decisions and/or resolving different issues. Furthermore, MNOY use acquired knowledge to respond to stakeholders' expectations, develop strategies, and improve performance.

3- The Executional Excellence Practices (EEPs): EEPs is referred to the ability of the MNOY to meet the set of the executional dimension's criteria established by the EFQM-EM 2020 version that includes engaging stakeholders, creating sustainable value, and driving performance & transformation. Definitions of the EFQM executional dimensions are as follows:

a) Engaging Stakeholders (ESs): in an outstanding organization, according to the EFQM (2021), is referred to the process of identifying key stakeholders, understanding their expectations and needs to create and deliver sustainable value, and actively interacting to receive feedback to enhance the organization's performance accordingly. To serve the purpose of the study, ESs are defined as the ability of MNOY to build relationships with key stakeholders and actively involve them for an MNO to create sustainable value.

b) Creating Sustainable Value (CSV): The term CSV refers to the impact caused by the organization and its value system at the social, economic, and environmental levels, affecting stakeholders (Acosta-Prado et al., 2022). The CSV, for the purpose of this study, is defined as the ability of MNOY to design, communicate, sell, and deliver the value and experience that affects stakeholders.

c) Driving Performance & Transformation (DPT): Driving Performance is referred to the need of an organization to continue successful management of current business operations delivery; while Driving Transformation is referred to the required response and management to the constant changes in the organization's internal and external environments if it is to remain successful (EFQM, 2021). However, for the purpose of the study, DPT is defined as the ability of the MNOY to utilize technology, leverage data, information & knowledge, and manage assets & resources to drive current operations or performance while responding to constant changes and driving transformation for the future.

9. Research Methods

Research Design

The research design provides an overview on the study population, level of researcher involvement, unit of analysis, sampling approach, methods for data collection, measurement of variables, and data analysis techniques employed (Sekaran & Bougie, 2016).

The analytical descriptive approach was adopted. This approach is deemed the most appropriate for describing social phenomena and capturing people or organizations characteristics (Sekaran & Bougie, 2016). To ensure empirical evidence that validates the proposed hypotheses and that findings not merely coincidental, the study will adopt the quantitative methodologies. Therefore, this study employs a deductive quantitative research approach to explore and explain the relationships between variables (Hair et al., 2019) using quantitative data (Sekaran & Bougie, 2016). To collect data, the study developed a questionnaire that includes closed-ended items.

Unit of Analysis

The unit of analysis determines what or who should provide the data and at what level (Zikmund, 2008). In this study, the organizational unit of analysis is MNOY, and data will be collected from employees in mid and high-management levels.

Population

This study targets employees in MNOs in Yemen. The population is restricted based on the study objectives. Specifically, it includes employees in mid and high management roles within MNOY. The targeted population consists of 256 employees for Naba'a Alhudhud (formerly Y Telecom), Sabafon, YOU, and Yemen Mobile in the mid and high-management levels.

Each MNO's population size was determined through the Human Resources departments in these organizations (see Table 1).

Table 1: Study Population.

No.	MNO Name	Population
1	Naba'a Alhudhud	30
2	Sabafon	52
3	YOU	61
4	Yemen Mobile	81
Total		256

Note. Information gathered by the researcher through MNOs' HR units.

However, due to the small population size, and considering the assumptions of the data analysis

techniques that would be adopted in this study, the researcher chooses to adopt the census method, i.e., “a count of all elements in the human population” (Sekaran & Bougie, 2016 p. 237) among the four MNOs in Yemen.

10. Materials and Methods

To facilitate data collection, a questionnaire has been developed based on a comprehensive literature review of the study's constructs. The study adopted a seven-items Likert scale to score the items of the questionnaire. It was distributed to mid and high-level employees in the selected companies, and was facilitated through management channel. Out of the 256 questionnaires distributed, 236 completed questionnaires were collected. The study strictly adhered to the required standards by obtaining the necessary approval from the Ministry of Telecommunication and Information Technology to collect data.

11. Results

Data Screening and Cleaning

To determine if respondents engaged in misbehavior an additional method suggested examining the standard deviation of data. total responses received were 236, respondents with standard deviation less than 0.25 were 17 deleted responses. The remaining 219 were valid to proceed further with the analysis.

Hair et al. (2019) confirmed that SEM cannot be executed if any values are missing. To address this concern, precautionary procedures were taken during the data collection process. The researcher coordinated with the questionnaire collectors in targeted organizations to accurately review the completed questionnaires and rectify cases of missing data prior to receiving the finalized copies from targeted participants. As a result, the 219 responses were valid cases with no missing data issue.

Boxplots was applied to test outliers. It is worth mentioning that all identified outliers were deemed to be insignificant. And to evaluate the impact of these outliers on the dataset, the researcher compared the mean with the 5% trimmed mean. This comparison aimed to

identify differences between these two measures. The results of the outliers' effect test indicate that there was no difference between the original means value of the main variables and the 5% trimmed mean (Pallant, 2020). Furthermore, when analyzing skewness and kurtosis, results show no indication of any outliers that might affect the results of the statistical tests. Consequently, based on these results, the research did not take any. Further, the researcher proceeded to assess multivariate outliers using the Mahalanobis distance technique (Pallant, 2020) employing a significance level of $p < 0.001$. the analysis results show that none of the Mahalanobis distances surpassed the threshold of 22.458 (Tabachnick and Fidell, 2019). Therefore, no further action was deemed necessary as no significant outliers were found.

Normality Assessment

As presented in Table 2, the values for skewness and kurtosis are within the range of ± 2 (Hair et al., 2021).

Table 2: Measures Constructs Normal Distribution.

Variables	Constructs	Skewness	Kurtosis
OP	SPS	-0.581	-0.321
	SOP	-0.678	-0.301
	ESs	-0.548	-0.362
EEPs	CSV	-0.549	-0.640
	DPT	-0.402	-0.485
KAp	KAp	-0.566	0.017

Respondents Characteristics

Table 3 shows the distribution of respondents' demographic characteristics. Among the 219 participants, a majority of 194 (88.6%) was male, while the remaining 25 (11.4%) were female. This suggests a moderate low females' representation in middle management roles which could be influenced by cultural and job holder requirements factors.

When considering age demographics, the largest group among the participants were those between the range of thirty to forty years and forty-one to fifty years old, comprising 187 participants (85.4%) of all respondents. This distribution may be attributed to their knowledge of new technologies and associated competencies.

In terms of position level, more than half of the respondents held the Section Heads accounting for 121 participants (55.3%) occupying this role. Further, A large portion of the participants had completed their studies, with 166 individuals (75.8%) holding a bachelor’s degree.

In conclusion, the respondents' characteristics helps in understanding the context and generalizability of the research results.

Table 3: Distribution of Respondents’ Demographic Characteristics.

		Frequency	Percent
Gender	Male	194	88.6
	Female	25	11.4
Age	< 30 years	22	10.0
	30-40 years	94	42.9
	41-50 years	93	42.5
	51-60 years	9	4.1
	61 years +	1	0.5
Current Position	Department Manager	15	6.8
	Department Vice-Manager	7	3.2
	Branch Manager	15	6.8
	Section Head	121	55.3
	Others	61	27.9
Academic Level	High School or lower	3	1.4
	Diploma	14	6.4
	Bachelor	166	75.8
	Master	36	16.4
Work Experience	< 5 years	27	12.3
	5-10 years	44	20.1
	11-15 years	52	23.7
	16 years +	96	43.8
Current Employer	YOU	72	32.9
	Sabafon	65	29.7
	Naba	26	11.9
	Alhadhad		
	Yemen Mobile	56	25.6
	Total	219	100.0

Descriptive Statistics

By using measurements such as the mean and standard deviation (Std. Dev) researchers can effectively describe and understand a sample, offering valuable insights into its characteristics (Sekaran & Bougie, 2016). The following

sections will present the descriptive statistics of the dependent variable (Organizational Performance), Mediating variable (Knowledge Application) and the independent variable (Executional Excellence Practices).

1- Organizational Performance

Table 4 shows the mean and standard deviation scores for all items measuring OP. Respondents tend to perceive high levels on the organizational performance with mean and Std. Dev scored 4.87 and 1.30, respectively. This could be generally interpreted that the respondents somewhat agree on the organizational performance indicators in their organizations. In terms of the OP's dimensions, SPS came first with a mean scored 4.91 followed by SOP with mean scored 4.84.

Table 4: Descriptive Statistics of OP.

Rank	Dimension	Mean	Std.Dev
1	SPS	4.91	1.00
2	SOP	4.84	1.03
	OP	4.87	1.30

2- Knowledge Application

Table 5 shows the results of descriptive statistics of the KAp. Respondents tend to perceive high levels of availability on the measurement items with mean and Std. Dev scored 4.52 and 0.94, respectively. This could be generally interpreted by the respondents' tendency that the knowledge application practices are available in their organizations.

Table 5: Descriptive Statistics of KAp.

	Mean	Std.Dev
KAp	4.52	0.94

3- Executional Excellence Practices

Table 6 shows the results of descriptive statistics of the EEPs. Respondents lean towards perceiving high levels of availability on the measurement items with mean and Std. Dev scored 4.58 and 1.68, respectively. This could be generally interpreted by the respondents'

tendency that the EEPs are somewhat available in their organizations. In terms of the EEPs' dimensions, CSV came first with a mean scored 4.70 followed by ESs then DPT with means scored 4.63 and 4.47, respectively.

Table 6: Descriptive Statistics of EEPs.

Rank	Dimension	Mean	Std.Dev
2	ESs	4.63	1.32
1	CSV	4.70	1.37
3	DPT	4.47	1.37
EEPs		4.58	1.68

Second-Generation Techniques (PLS-SEM)

After completing the initial analysis of the gathered data, the subsequent step involves employing second-generation techniques using SmartPLS® software to assess the study's conceptual model.

The disjoint two-stage approach will be followed focusing on the lower-order constructs initially. In stage one, the estimation and measurement model assessment for the lower-order components is based on the standard model, i.e., validity and reliability assessment techniques. The higher-order components are not included in the PLS path model. Then in stage two, the

latent variables scores from the stage one results allow creating and estimating the model.

Measurement Model Assessment

*1- Assessing Reflective-Formative Measurement (Outer) Models
Construct Reliability and Convergent Validity:*

Table 7 illustrate the assessment of the measurement model for the first-order constructs. The findings indicate that majority of indicators have loadings exceeding 0.708, except for the item (SOP4) which has loading of 0.682. These values exceed the significance threshold for loadings, which is 0.50 (Hair et al., 2019), indicating a strong association between the constructs and their indicators (Hair et al., 2019). Moreover, the results show that all composite reliability (CR) values range from 0.842 to 0.931, and Cronbach's Alpha values range from 0.753 to 0.916. These values demonstrate a high level of internal consistency and reliability across all the reflective first-order constructs.

Table 7: Measurement Model Assessment – First-order Constructs.

First-order Construct	Indicator	Loading	AVE	Cronbach's alpha	CR (rho_c)
SPS	SPS1	0.798	0.617	0.846	0.889
	SPS2	0.838			
	SPS3	0.705			
	SPS4	0.775			
	SPS5	0.806			
SOP	SOP1	0.816	0.602	0.835	0.883
	SOP2	0.792			
	SOP3	0.760			
	SOP4	0.682			
	SOP5	0.822			
ESs	ESs1	0.837	0.649	0.865	0.902
	ESs2	0.786			
	ESs3	0.810			
	ESs4	0.779			
	ESs5	0.816			
CSV	CSV1	0.860	0.687	0.909	0.929
	CSV2	0.824			
	CSV3	0.818			
	CSV4	0.884			
	CSV5	0.777			
	CSV6	0.805			
DPT	DPT1	0.792	0.629	0.916	0.931
	DPT2	0.801			
	DPT3	0.793			

First-order Construct	Indicator	Loading	AVE	Cronbach's alpha	CR (rho_c)
KAp	DPT4	0.855	0.573	0.753	0.842
	DPT5	0.710			
	DPT6	0.788			
	DPT7	0.805			
	DPT8	0.796			
	KAp1	0.716			
	KAp2	0.730			
	KAp3	0.810			
	KAp4	0.767			

Note: CSV: creating sustainable value; DPT: driving performance and transformation; ESs: engaging stakeholders; KAp: knowledge application; SOP: strategic and operational performance; SPS: stakeholder perceptions.

Discriminant Validity

The discriminant validity of the first-order constructs was conducted and results showed that all loadings significantly exceed the cross-loading values with other constructs. Accordingly, the constructs in this study are distinct and can be considered independent. Furthermore, all Heterotrait-Monotrait (HTMT) values are below the threshold of 0.90 (Hair et al., 2019). These values show that the first-order constructs are distinct from each other, as their correlations do not exceed the recommended threshold. Hence, the measurement model establishes discriminant validity across the first-order constructs.

2- Assessment of Reflective-Formative Higher order Constructs – EEPs and OP.

After validating the first order constructs, the next step is to validate the second-order constructs through assessment of collinearity, outer weights and outer loadings of the Lower-order Components (LOCs) for the Higher-order Constructs (HOCs).

Collinearity Assessment

The Variance Inflation Factor (VIF) results show an acceptable range with values < 5 (Hair et al., 2022); accordingly, the analysis confirms that collinearity is not a concern (Hair et al., 2022).

Assessment the Outer Weights and Loadings

Based on the results of the outer weights (see

Table 8), it becomes apparent that most of outer weights for the LOCs of the HOCs are statistically significant, except for the DPT construct. However, after examining the outer loadings (in Table 9), it is clear that all loadings exceed 0.5 threshold and are significant. According to Hair et al. (2022), if outer weights are insignificant but outer loadings are significant as well as high (i.e., ≥0.50), it is advisable to retain the constructs. However, since all criteria are met, we can conclude that the validity of the EEPs, and OP HOCs established.

Having a verified measurement model that meet the reliability and validity criteria for both LOCs (first order constructs) and HOCs (second order constructs) are met, the subsequent step involves assessing the structural model.

Table 8: Outer Weights of the LOCs for the HOC.

	Outer Weights	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CSV -> EEPs	0.419	0.153	2.739	0.006
DPT -> EEPs	0.083	0.152	0.548	0.584
ESs -> EEPs	0.571	0.140	4.086	0.000
SOP -> OP	0.620	0.161	3.860	0.000
SPS -> OP	0.441	0.169	2.612	0.009

Table 9: Outer Loadings of the LOCs for the HOC.

	Outer Loadings	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
CSV -> EEPs	0.918	0.037	24.873	0.000
DPT -> EEPs	0.862	0.049	17.695	0.000
ESs -> EEPs	0.953	0.029	32.404	0.000
SOP -> OP	0.959	0.034	28.315	0.000
SPS -> OP	0.918	0.046	20.064	0.000

Structural Model Assessment

To assess the structural model, the explanatory power and PLS predictive power were used. Table 10 shows the R^2 results, the R^2 value for KAp and OP are 0.273 and 0.351 which considered relatively significant. These results suggest that 27.3% of the variance observed in the KAp is explained by the combined impact of EEPs. On the contrary, the R^2 result of OP suggest that 35.1% of the variance observed in the OP is explained by the combined impact of EEPs, and KAp.

Table 10: Coefficient of Determination R^2 .

	R-square
KAp	0.273
OP	0.351

Moreover,

Table 11 shows the results of the predicative power of the path model. The findings indicate that all of the constructs show lower RMSE values compared to the LM RMSE benchmark. This indicates that the path model holds a high level of predictive power.

Furthermore,

Table 12 and Figure 1, show the findings of beta coefficients, T statistics values, and significance levels. It is evident that most of path coefficients reach significant levels at 0.001 and 0.05. These results indicate the validity of the structural model.

Hypothesis Testing

As shown in

Table 12 and Figure 1, the results strongly support four hypotheses. The results indicate that

the EEPs exert a significant and positive effect on KAp ($\beta = 0.523, t = 10.208, p < 0.000$). Hence, H1 was supported. The KAp showed a significant and positive impact on OP ($\beta = 0.163, t = 2.362, p < 0.018$). Hence, H2 was supported. The EEPs also have a significant and positive effect on OP ($\beta = 0.491, t = 8.548, p < 0.000$). Hence, H3 was supported.

Testing the Mediation Hypothesis

Mediation analysis was conducted to assess the KAp mediation role (MV) in the relationship between EEPs (IV) and OP (DV). The study adopted Zhao et al. 's (2010) recommended steps for mediation analysis.

The mediation analysis results of KAp between the EEPs and OP (see

Table 13) showed that the specific indirect effect (i.e., path $P1*P2$) was significant in bootstrapping ($\beta = 0.037, t = 2.282, p < 0.023$), indicating that KAp transmits the effect of EEPs to OP. In addition, the total effect of EEPs on OP (P3a) was significant ($\beta = 0.576, t = 12.404, p < 0.000$); even with the presence of the mediator, the effect of EEPs on OP (P3b) remained significant ($\beta = 0.491, t = 8.548, p < 0.000$). The direct and indirect effects are both positive ($0.491*0.037=0.018$), suggesting that the KAp represents complementary partial mediation in the relationship from EEPs to OP (Zhao et al., 2010). Accordingly, the fourth hypothesis of the study is supported.

Table 11: Predicative Power of the Path Model.

	$Q^2_{predict}$	PLS-SEM_RMSE	LM_RMSE
KAp1	0.111	1.148	1.153
KAp2	0.193	1.040	1.046

KAp3	0.143	1.290	1.301
KAp4	0.106	1.134	1.143
SOP	0.300	0.840	0.842
SPS	0.254	0.867	0.872

Table 12: Significance of the Path Coefficients.

Path	Beta Coefficient (β)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
EEPs -> KAp	0.523	0.051	10.208***	0.000
EEPs -> OP	0.491	0.057	8.548***	0.000
KAp -> OP	0.163	0.069	2.362**	0.018

*p<0.1; **<0.05; ***p<0.001

Table 13: Mediation Analysis of KAp between the EEPs and the OP.

Path	Beta Coefficient	T Statistics	P Value	
Specific Indirect effect P1*P2	EEPs→KAp→OP 0.037	2.282**	0.023	
Total Effect (Without Mediation) P3a	EEPs→OP 0.576	12.404***	0.000	
Direct Effect (With Mediation)	P1	EEPs→KAp 0.523	10.208***	0.000
	P2	KAp→OP 0.163	2.362**	0.018
	P3b	EEPs→OP 0.491	8.548***	0.000

*p<0.1; **<0.05; ***p<0.01

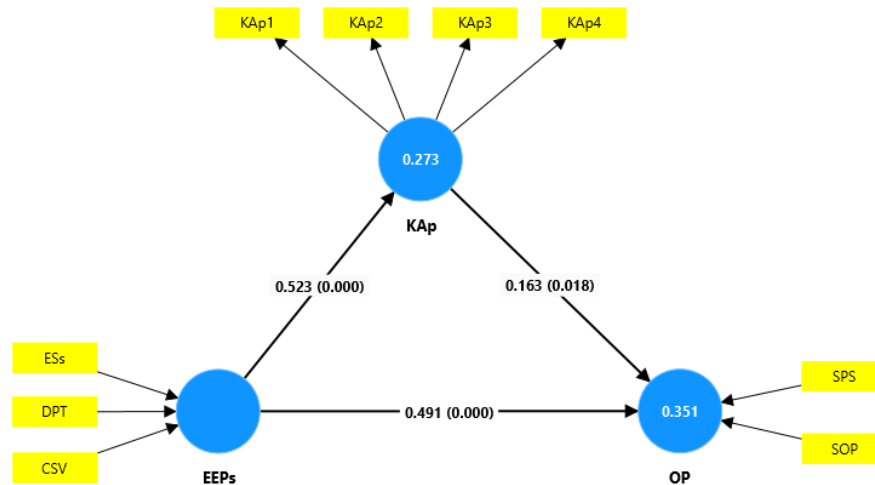


Figure 1: Path Coefficients of the Conceptual Model.

12. Discussion and Conclusion

The study examined the relationship between executional excellence practices, organizational performance, and the mediating role of knowledge application within MNOs in Yemen. Data was analyzed using SEM-PLS.

The study results show that EEPs have a significant impact on KAp. In addition, KAp has a significant impact on OP. Accordingly, the first and second hypotheses are accepted. These results are consistent with previous studies that support the notion that synergies between excellence practices and KAp exist (Azimi, 2016; Criado-García et al., 2019). Moreover, the results support the findings of the previous research that has found a positive impact between excellence practices on organizational performance (Calvo-Mora et al., 2020; Al-Darmaki and Al-Dhaafri, 2018; Al-Dhaafri et al., 2016; and Tickle et al., 2016). According to the EFQM (2021), the EEPs involve engaging stakeholders, creating sustainable value, and driving performance and transformation. Excellence practices require a robust knowledge application to support information sharing and collaboration across various stakeholders and activities within MNOs.

Furthermore, the study results show that the EEPs have a significant impact on OP, and also a complementary mediation role of KAp in the relationship between the EEPs and OP. Accordingly, the third and fourth hypotheses are accepted. These findings suggest that KAp can enable the smooth execution of excellence practices, leading to enhanced OP. In Yemen's context, where mobile network operators face various challenges in a dynamic market, executional excellence practices that are well-supported by effective knowledge application become even more critical.

The complementary partial mediation suggests that KAp enhance the positive impact of EEPs on OP. Researchers highlighted the importance of knowledge management in the telecom industry (Zayed et al., 2022). However, previous studies have not addressed the role of knowledge application in the relationship between the EEPs and OP. By addressing this relationship, this study is bridging this gap in literature, providing the mobile network

operators in Yemen with a framework to exploit their resources and practices for high organizational performance.

13. Recommendations

This study aimed to address contemporary management concepts to develop MNOs organizational performance. It explores how the strategic utilization of organizational resources (i.e., knowledge assets) as a mediator in the application of excellence practices to enhance performance within MNOs. Accordingly, in light of the data analysis results, the MNOs in Yemen are highly recommended to have:

1. Adopt an excellence practices framework that is complemented by strong KAp to enhance OP. KAp is found to play a pivotal role that enable the EEPs to drive OP.
2. Establish organizational performance metrics that include the impact of EEPs, and KAp on both stakeholders' perceptions and operational & strategic performance.
3. Consider knowledge resources to inform and guide organizations strategic choices to enhance organizational performance.
4. Emphasize on driving current performance for future transformation to ensure the positive impact of EEPs on OP through effective KAp.
5. Become a learning organization as a strategy for MNOs. They shall hire, train, and rewarding staff who embrace knowledge application.

References

- [1] Abbas, J. and Kumari, K. (2021). Examining the relationship between total quality management and knowledge management and their impact on organizational performance: a dimensional analysis. *Journal of Economic and Administrative Sciences*, Vol. 39 No. 2, pp. 426-451.
- [2] Abbas, J. and Sagsan, M. (2019a), "Identification of key employability attributes and evaluation of university graduates' performance: instrument development and validation", *Higher Education, Skills and Work-Based Learning*, Vol. 10 No. 3, pp. 449-466.
- [3] Al-Darmaki, A.I., & Al-Dhaafri, H. S. (2018). The Effect of Total Quality Management, Organizational Excellence on Organizational Performance-The Moderating Role of Entrepreneurial Orientation. *Journal of*

- Management and Research, Vol. 10, pp. 130-144.
- [4] Al-Dhaafri, H. S., Al-Swidi, A. K., & Al-Ansi, A. A. (2016). Organizational excellence as the driver for organizational performance: A study on Dubai police. *International Journal of Business and Management*; Vol. 11, No. 2.
- [5] ASQ (2022). What Is Organizational Excellence? Retrieved from <https://asq.org/quality-resources/organizational-excellence> (Accessed 23 Jan 2022).
- [6] Antony, J.P. and Bhattacharyya, S. (2010). Measuring organizational performance and organizational excellence of SMEs – Part 2: an empirical study on SMEs in India. *Measuring Business Excellence*, 14(3), pp. 42-52. <https://doi.org/10.1108/13683041011074209>
- [7] Azimi, H. (2016). Determination of Knowledge Management (KM) impact on organizational excellence of PNU personnel in Western Azerbaijan Province (Iran). *International journal of humanities and social sciences*, Vol. 3, pp. 292-300.
- [8] Bocoya-Maline, J., Rey-Moreno, M. and Calvo-Mora, A. (2023). The EFQM excellence model, the knowledge management process and the corresponding results: an explanatory and predictive study. *Review of Managerial Science*.
- [9] Calvo-Mora, A., Blanco-Oliver, A., Roldán, J.L., & Periañez-Cristóbal, R. (2020). TQM factors and organisational results in the EFQM excellence model framework: an explanatory and predictive analysis. *Industrial Management & Data Systems*, Vol. 120, No. 12, pp. 2297-2317.
- [10] Cordeiro, M.d.M., Oliveira, M., & Sanchez-Segura, M.-I. (2021). The influence of the knowledge management processes on results in basic education schools. *Journal of Knowledge Management*, Vol. ahead-of-print No. ahead-of-print.
- [11] Criado-García, F., Calvo-Mora, A. & Martelo-Landroguez, S. (2020). Knowledge management issues in the EFQM excellence model framework. *International Journal of Quality & Reliability Management*, Vol. 37 No. 5, pp. 781-800.
- [12] Daft, R., (2021). *Organization theory and design* (13th ed.). Cengage Learning Inc., Boston, MA.
- [13] Dalkir, K. (2017). *Knowledge management in theory and Practice* (3rd ed.). The MIT Press.
- [14] De Waal, A. and Heijtel, I. (2016). Searching for effective change interventions for the transformation into a high-performance organization. *Management Research Review*, Vol. 39 No. 9, pp. 1080-1104.
- [15] EFQM. (2021). *The EFQM Model: An Overview*. Brussels, Belgium: European Foundation for Quality Management. Available at: <https://mailchi.mp/7703bd3f60fd/qqr7x5leq> (Accessed 20 January 2022).
- [16] Fadhl, S., and Sacchetto, C. (2023). Reforming Yemen's telecommunications sector Policy options to improve private sector participation and strengthen service delivery. Available at: <https://www.theigc.org/publications/reforming-yemens-telecommunications-sector> (Accessed 23 February 2024)
- [17] Ferro-Soto, C., Macías-Quintana, L. A., & Vázquez-Rodríguez, P. (2018). Effect of Stakeholders-Oriented Behavior on the Performance of Sustainable Business. *Sustainability* 10, no. 12: 4724.
- [18] Fonseca, L.M. and Domingues, J.P. (2018). The best of both worlds? Use of Kaizen and other continuous improvement methodologies within Portuguese ISO 9001 certified organization. *TQM J.*, Vol. 30, pp. 321–334.
- [19] Goetsch, D. L. & Davis, S. (2016). *Quality Management for Organizational Excellence: Introduction to Total Quality* (8th ed.). Pearson Education Limited, US.
- [20] Grant, R. M. (1996). Towards A knowledge-based theory of the firm. *Strategic Management Journal*, Vol. 17 (winter special issue), pp. 109-122.
- [21] GSMA. (2022). *The Mobile Economy 2022*. GSM Association. <https://www.gsma.com/mobileeconomy/wp-content/uploads/2022/02/280222-The-Mobile-Economy-2022.pdf>
- [22] Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P. and Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*, Springer Nature Switzerland AG.
- [23] Hair, J., Anderson, R., Babin, B. and Black, W. (2019). *Multivariate data analysis* (8th ed). Cengage, Australia.
- [24] Hair, J., Hult, G., Ringle, C. and Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM)* (3rd ed.). Thousand Oaks, CA: SAGE.
- [25] Ilyas, I.M. and Osiyevskyy, O. (2022). Exploring the impact of sustainable value proposition on firm performance. *European Management Journal*, Vol. 40 No. 5, pp. 729-740.
- [26] ITU, (2018). *Measuring the Information Society Report 2018 – Volume 2*. International Telecommunication Union, Geneva Switzerland.
- [27] Keller, G.F. (2011). Comparing the affects of management practices on organizational performance Between For-Profit and Not-For-Profit Corporations In Southeast Wisconsin. *Journal of Business & Economics Research*, Vol. 9 No. 3.

- [28] Lasrado, F. (2018). *Achieving Organizational Excellence: A Quality Management Program for Culturally Diverse Organizations*, Springer International Publishing AG, Switzerland.
- [29] Lim, K. K., Ahmed, P. K., & Zairi, M. (1999). Managing for quality through knowledge management. *Total Quality Management*, 10(4 & 5), 615–621.
- [30] Namdarian, L., Sajedinejad, A., & Bahanesteh, S. (2021). The Impact of Knowledge Management on Organizational Performance: A Structural Equation Modeling Study. *AD-minister No. 37*, pp.85 – 108.
- [31] Nonaka, I. and Takeuchi, H. (1995). *The Knowledge-Creating Company* (1st Ed.). Oxford University Press, New York.
- [32] North, K., & Kumta, G. (2018). *Knowledge Management: Value Creation Through Organizational Learning*. Springer Texts in Business and Economics. 2nd ed., Springer.
- [33] Obeso, M., Hernández-Linares, R., López-Fernández, M.C. and Serrano-Bedia, A.M. (2020). Knowledge management processes and organizational performance: the mediating role of organizational learning. *Journal of Knowledge Management*, Vol. 24 No. 8, pp. 1859-1880.
- [34] Ooi, K.B. (2014). TQM: a facilitator to enhance knowledge management? A structural analysis. *Expert Systems with Applications*, Vol. 41 No. 11, pp. 5167-5179.
- [35] Payal, R., Ahmed, S. & Debnath, R.M. (2019). Impact of knowledge management on organizational performance: An application of structural equation modeling. *VINE Journal of Information and Knowledge Management Systems*, Vol. 49 No. 4, pp. 510-530.
- [36] Qasrawi, B.T., Almahamid, S.M. and Qasrawi, S.T. (2017). The impact of TQM practices and KM processes on organisational performance: An empirical investigation. *International Journal of Quality & Reliability Management*, Vol. 34 No. 7, pp. 1034-1055.
- [37] Sekaran, U. and Bougie, R. (2016). *Research Methods for Business: A skill-building approach*. (7th ed.). John Wiley and Sons Ltd, UK.
- [38] Sousa-Zomer, T.T., Neely, A. and Martinez, V. (2020). Digital transforming capability and performance: a microfoundational perspective. *International Journal of Operations & Production Management*, Vol. 40 No. 7/8, pp. 1095-1128.
- [39] Taher, A. A. (2016). *Knowledge Management Processes and its Relationship with Organizational Excellence: Applied study on Al-Hodeida University* [Master's Thesis, Hodeidah University]. Central Electronic Library of Yemen.
- [40] Tickle, M., Mann, R. & Adebajo, D. (2016). Deploying business excellence – success factors for high performance. *International Journal of Quality & Reliability Management*, Vol. 33 No. 2, pp. 197-230.
- [41] Ting, I.W.K., Sui, H.J., Kweh, Q.L. & Nawanir, G. (2021). Knowledge management and firm innovative performance with the moderating role of transformational leadership. *Journal of Knowledge Management*, Vol. 25 No. 8, pp. 2115-2140. <https://doi.org/10.1108/JKM-08-2020-0629>
- [42] Turisová, R., Pacaiová, H., Kotianova, Z., Nagyová, A., Hovanec, M., & Korba, P. (2021). Evaluation of eMaintenance Application Based on the New Version of the EFQM Model. *Sustainability* 2021, 13, 3682.
- [43] Ullah, I., Mirza, B., Kashif, A. R., & Abbas, F. (2019). Examination of knowledge management and market orientation, innovation and organizational performance: Insights from telecom sector of Pakistan. *Knowledge Management & E-Learning*, 11 (4), 522–551.
- [44] Zayed, N.M., Edeh, F.O., Islam, K.M., Nitsenko, V., Dubovyk, T., & Doroshuk, H. (2022). An Investigation into the Effect of Knowledge Management on Employee Retention in the Telecom Sector. *Administrative Sciences*.
- [45] Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research, Inc.*, Vol. 37, 197-206.
- [46] Zikmund, W. G. (2008). *Business research methods* (8th ed.). Mason: South-Western Cengage Learning.