

The Mediating effect of Resources Available on the Relationship between Training and Employee Performance

Adel Eljali¹, Ali Ameen^{1*}, Osama Isaac¹

¹ Lincoln University College, Malaysia

* Correspondence: ali.ameen@aol.com

Abstract

In the quest to improve employee performance, attention has been directed at new innovative ideas. It must be emphasized that the dire need for better training and resource allocation has led to extensive research effort. Three Libyan companies namely; Africa Engineering and Projects Company, Libya Investment Embracement Company and Africa Trade & Investment Company are the focus of this paper, where an innovative approach is applied to assess the impact of training on employee performance, in addition to the mediating role of resources available. The data was collected from 418 employees in Africa Engineering and Projects Company, 236 employees in Libya Investment Embracement Company, and 362 employees in Africa Trade & Investment Company. The data was analysed using structural equation modelling (SEM) via SmartPLS 3.0. The results proved that there is a significant impact of training on employee performance, and it also proved the significant mediating role of resources available in the model. The proposed model explained 57% of the variance in employee performance.

Keywords: Training; employee performance; resources available

1. Introduction

Training is considered an important factor in the modern institutions and directly affects the functional (or occupational) performance (Otuko, Kimanichege, & Douglas, 2013). Training turned into a main part of the strategies of human resources in the business organizations and governmental administrations and cannot be realized unless through the availability of accessible material potentialities and the qualifying cadres for training and the division of the training programs, that shall be designed and executed, as per the necessities of the organization (Zahid Hussain Bhat, 2011) whereas training contributes significantly in the achievement of the goals and strategies of the institution and on the other hand, the changes may lead to the aging of skills learnt within a short period of time, whereas the organizational changes and expansions pertaining to the sector of business through the introduction of modern technology in the various aspects of business increases the need of the individual for the update of his skills and gain new skill through elaborate training programs as per methodological and scientific bases (Falola, Osibanjo, & Ojo, 2014); the evaluation of training is considered to be one of the strategic and basic axes for supporting and diversifying skills, experiences and knowledge of the personnel in the organization and the evaluation of training contributes in finding out with certainty about development in functional performance, promotion of the brains of trainees and expansion of their horizons and mental faculties, in such a way to help the deepening of thought and make them gain the enlightened cognition, in order to disclose the conditions and impacts incumbent upon their conducts (Roberts & David, 2020).

2. Literature Review

2.1 Employee Performance (EP)

Several assertions have been made regarding the association between project management and organizational performance. Studies in this area include Barney (1991), Newbert (2007), Jugdev, Mathur & Fung (2007), Adeyemi (2013) and others. These sources have usually associated project management with competitive advantage which in turn leads to performance in key areas of business management. The need to adopt project management approach to march performance effectiveness and efficiency is not new as Adeyemi (2013) emphasize that at least 50% of all work are usually carried out in the form of projects even though not all areas of initiation, planning, execution, monitoring and others are not strictly considered (Ameen & Ahmad, 2012, 2013a, 2014; Ameen, Al-ali, Isaac, & Mohammed, 2020; Ameen, Alfalasi, Gazem, & Isaac, 2020; Ameen, Almari, & Isaac, 2019). Even though studies on effect of project on larger organizational performance has been observed, the employee performance as a dependent variable has not gained much attention.

Employee performance measurement and other work performance indicators have to some extent been considered as a measure of project management (Usmani, 2012). This is true despite a lack of clear literature establishing the association between project management and employee performance, considering employee performance is different in many ways from organizational performance. Nevertheless, project management assets used for the measurement of variables were debated as leading to performance at the organizational levels.

All project management assets of value (Barney & Hesterly, 2014), rarity (Tuan & Takahashi, 2010), imitability (Barney, 1991) and organization (Barney & Hesterly, 2014) have been associated with organizational level usually as a major contributor to these areas of project management assets from a strategic perspective. At the employee level, these have not been considered and remain exploratory.

2.2 Training (TR)

The subject of training human resources and their promotion is considered to be one of the important matters in the work of modern organizations (Jaworski, Ravichandran, Karpinski, & Singh, 2018). The human element represents the basic motor of the resources of the organization, particularly when it enjoys skilful quality and cognitive abilities that tally with the nature of work of the organization (Hanaysha, 2016). Training is an operation of active effect on the performance and skills of the human element in the organization, which is necessary for the preservation of the high efficiency of work strength whereas it raises the standard of skills and helps to implant confidence in the spirits of workers and improves business quality (Afroz, 2018)(Abdulbaqi Ameen & Ahmad, 2011; Ameen & Ahmad, 2012, 2013b, 2014, 2017; Ameen, Almari, Isaac, & Mohammed, 2019). Training is considered to be one of the strategic and basic axes for the support and diversification of the skills, experiences and knowledge of the personnel in the organization (Sharma & Taneja, 2018). Training contributes in the fertilization of brains of trainees and expands their horizons and perceptions in such a way to help in deepening thought and make them gain the enlightened discernment in order to disclose the circumstances and consequences incumbent upon their conducts (Otuko et al., 2013). Consequently, the following hypothesis is proposed:

H1: Training has a positive effect on employee performance.

H2: Training has a positive effect on resources available.

2.3 Resources Available (RA)

Most of the organizations rely, on their available resources, on the success of training and development of the personnel performance; therefore, the internal resources of the organization have a great significance in the success of the organization business (Salem & Abdien, 2017); therefore, it is necessary to determine the material and human potentialities necessary for the execution of the goals of the training plan and realize success therein by exploiting the available material and human resources. The organization may identify its available resources by inventorying such resources for the sake of knowing the availability of resources that consolidate the organizational activities in the organization and face challenges in work and divide the resources of the organization (Othman, Arshad, Aris, & Arif, 2015)(Ameen & Ahmad, 2014; Ameen, Almari, & Isaac, 2019; Ameen, Almari, Isaac, et al., 2019; Osama Isaac, Abdullah, Aldholay, Ameen, et al., 2019; Sudhana, Ameen, & Isaac, 2020). Consequently, the following hypothesis is proposed:

H3: Resources available has a positive effect on employee performance.

H4: Training indirectly has a positive effect on employee performance through resources available.

3. Research Method

3.1 Overview of the Proposed Conceptual Framework

Figure 1 shows the proposed conceptual framework which contain three main variables training as independent variable, resources available ad mediating variable, and employee performance as dependent variable.

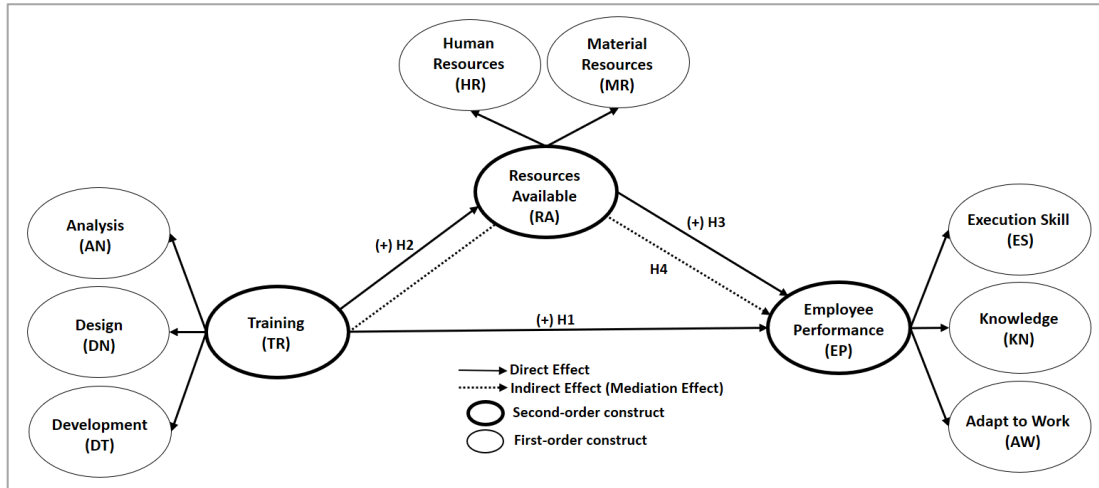


Figure 1: The proposed conceptual framework

3.2. Development of Instrument and Data collection

In this study, the researchers developed the questionnaire tool which consisted of 29 questions. This information was collected by delivering the self-managed questionnaire ‘in-person’ to the employees in the *Africa Engineering and Projects Company, Libya Investment Embracement Company and Africa Trade & Investment Company, Libya*, in the period between March 2019 and January 2020. Variables were measured using a Likert Scale which recommended in the previous studies (Isaac, Aldholay, Abdullah, & Ramayah, 2019; Isaac, Abdullah, Ramayah, & Mutahar, 2018). This study has adopted questionnaires to collect data (please refer to Appendix A for the instruments), while the second covered the demographic profile of respondents, measured using a nominal or ordinal scale.

4. Data Analysis and Results

PLS (Partial Least Squares) SEM-VB (Structural Equation Modelling-Variance Based) was employed to assess the research model by utilizing the software SmartPLS 3.0 (Ringle, Wende, & Becker, 2015). SEM offers a simultaneous and accurate analysis (Isaac, Abdullah, Aldholay, & Ameen, 2019; Isaac, Abdullah, Ramayah, & Mutahar, 2017; Mutahar, Daud, Thurasamy, Isaac, & Abdulsalam, 2018).

4.1 Measurement Model Assessment

The individual Cronbach’s alpha, the composite reliability (CR), The average variance extracted (AVE), and the factor loadings exceeded the suggested value (Kline, 2010; Hair, Black, Babin, & Anderson, 2010) as illustrated in Table 1.

Table 1: Measurement model assessment

Constructs	Item	Loading (> 0.7)	M	SD	α (> 0.7)	CR (> 0.7)	AVE (> 0.5)
Analysis (AN)	AN1	0.898	3.94	1.01	0.929	0.947	0.781
	AN2	0.921					
	AN3	0.892					
	AN4	0.806					
	AN5	0.897					
Design (DN)	DN1	0.917	3.90	0.99	0.871	0.912	0.722
	DN2	0.891					
	DN3	0.776					
	DN4	Deleted					
	DN5	0.807					
Development (DT)	DT1	0.843	4.05	0.96	0.934	0.950	0.791
	DT2	0.892					
	DT3	0.899					
	DT4	0.911					
	DT5	0.901					
Human Resources (HR)	HR1	0.925	3.91	1.05	0.923	0.951	0.867
	HR2	0.948					
	HR3	0.921					
Material Resources (MR)	MR1	0.889	3.52	1.21	0.946	0.957	0.786
	MR2	0.896					
	MR3	0.882					
	MR4	0.901					

	MR5	Deleted						
	MR6	0.904						
	MR7	0.848						
Execution Skill (ES)	ES1	0.902	3.62	1.13	0.916	0.937	0.749	
	ES2	0.883						
	ES3	0.830						
	ES4	0.824						
	ES5	0.885						
Knowledge (KN)	KN1	0.865	3.62	1.15	0.912	0.934	0.740	
	KN2	0.879						
	KN3	0.861						
	KN4	0.848						
	KN5	0.848						
Adapt to Work (AW)	AW1	Deleted	3.05	1.21	0.944	0.959	0.855	
	AW2	0.896						
	AW3	0.932						
	AW4	0.933						
	AW5	0.938						

Note: M=Mean; SD=Standard Deviation, α = Cronbach's alpha; CR = Composite Reliability, AVE = Average Variance Extracted.

Key: AN: Analysis, DN: Design, DT: Development, HR: Human Resources, MR: Material Resources, ES: Execution Skill, KN: Knowledge, AW: Adapt to Work

Fornell-Larcker was used to test the discriminant validity, table 2 shows that all constructs of model fulfilled satisfactorily, it was discovered that the AVEs' square root on the diagonals is bigger than the correlations among constructs (Fornell & Larcker, 1981; Chin, 1998; Hair et al., 2017).

Table 2: *Fornell-Larcker criterion*

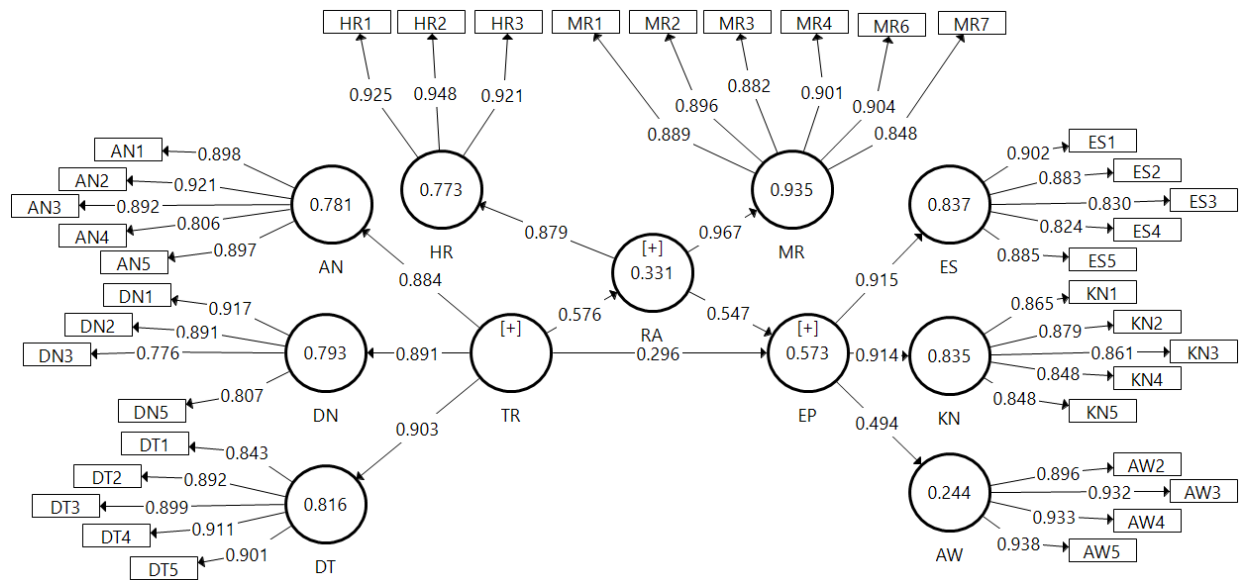
	AN	AW	DN	DT	ES	HR	KN	MR
AN	0.884							
AW	0.128	0.925						
DN	0.682	0.145	0.850					
DT	0.668	0.150	0.738	0.889				
ES	0.472	0.272	0.654	0.486	0.865			
HR	0.445	0.224	0.628	0.409	0.549	0.931		
KN	0.452	0.273	0.685	0.459	0.757	0.585	0.860	
MR	0.463	0.278	0.608	0.372	0.665	0.729	0.666	0.887

Note: Diagonals represent the square root of the average variance extracted while the other entries represent the correlations.

Key: AN: Analysis, DN: Design, DT: Development, HR: Human Resources, MR: Material Resources, ES: Execution Skill, KN: Knowledge, AW: Adapt to Work

4.2 Structural Model Assessment

The structural model can be tested by computing beta (β), R^2 , and the corresponding t -values via a bootstrapping procedure with a resample of 5,000 (Hair, Hult, Ringle, & Sarstedt, 2017). which also recommended by relevant studies regarding the context (Alrajawy, Mohd Daud, Isaac, & Mutahar, 2016; Alrajawy et al., 2018; (Alrajawy, Daud, Isaac, & Mutahar, 2017) (Aldholay, Abdullah, Isaac, & Mutahar, 2019) (Ahmed M Mutahar, Mohd Daud, Ramayah, Isaac, & Alrajawy, 2017; Ahmed M Mutahar et al., 2016).



Key: TR: Training, AN: Analysis, DN: Design, DT: Development, RA: Resources Available, HR: Human Resources, MR: Material Resources, EP: Employee Performance, ES: Execution Skill, KN: Knowledge, AW: Adapt to Work

Figure 2: PLS algorithm results

4.2.1 Direct Effect Hypotheses

Figure 2 and Table 3 showing the results of the hypothesis tests. Training positively influences employee performance and resources available. Hence, H1 and H2 are accepted with ($\beta = 0.296, t = 5.837, p < 0.001$) and ($\beta = 0.576, t = 11.476, p < 0.001$) respectively. Resources available positively influences employee performance. Hence, H3 is accepted with ($\beta = 0.547, t = 11.414, p < 0.001$).

Training and resources available explain fifty-seven percent of the variance in employee performance, and training explains thirty-three percent of the variance in resources available. The values of R^2 have an acceptable level of explanatory power, indicating a substantial model (Cohen, 1988; Chin, 1998).

Table 3: Result of Direct Effect Hypotheses

Hypothesis	Relationship	Std Beta	Std Error	t-value	p-value	Decision	R ²
H1	TR→EP	0.296	0.051	5.837	0.000	Supported	0.57
H2	TR→RA	0.576	0.050	11.476	0.000	Supported	0.33
H3	RA→EP	0.547	0.048	11.414	0.000	Supported	

Key: TR: Training, RA: Resources Available, EP: Employee Performance

4.2.2 Indirect Effect Hypotheses

The researchers applied the Preacher and Hayes (2004; 2008) method for bootstrapping all indirect effects for testing the mediation hypotheses, H4. The results showed (see table 4) that the resources available mediated the relationship between the training and employee performance. Thus, the H4 was accepted and showed the values of ($\beta = 0.315, t = 7.872, p < 0.001$).

Table 4: Result of Indirect Effect Hypotheses

Hypothesis	Relationship	Std Beta	Std Error	t-value	p-value	Decision
H4	TR→RA→EP	0.315	0.040	7.872	0.000	Supported

Key: TR: Training, RA: Resources Available, EP: Employee Performance

5. Discussion

In this study, the researchers noted that training positively affect employee performance among employees in Libyan companies namely; Africa Engineering and Projects Company, Libya Investment Embracement Company and Africa Trade & Investment Company. A similar observation was noted earlier (Hanaysha, 2016; Kour, El-Den, & Sriratanaviriyakul, 2019; Lee & Sozen, 2016; Rusu, Avasilcăi, & Huțu, 2016; Van Thielen, Bauwens, Audenaert, Van Waeyenberg, & Decramer, 2018). The finding implies that the more the employee received applicable job training, think that the training improved their skills, knowledge, attitude change, new capability, feel satisfied after training, perceived the method of training as effective, and think that

the expenditure for employee training is enough. The more they think training have increased their productivity, enhanced the quality of the service, helped them to improve quantity.

Similarly, the results showed that training significantly influenced resources allocation. In line with previous studies in literature (Hanaysha, 2016; Kotzé & Nel, 2020; Näyhä, 2020; Nzeru, Nzimakwe, Mutambara, & Munapo, 2015; Smathers & Sammons, 2020; Xie, Zhu, & Qi, 2020). It can be understood by the fact that the more the employee received applicable job training, think that the training improved their skills, knowledge, attitude change, new capability, feel satisfied after training, perceived the method of training as effective, and think that the expenditure for employee training is enough. The more resources are being allocated more effectively and efficiently to a trained employee that will ensure maximum utilization of these resources.

Further, resources allocation has a significant impact on employee performance. In support of previous studies findings (Hanaysha, 2016; Jaworski et al., 2018; Kotzé & Nel, 2020; Lee & Sozen, 2016; Näyhä, 2020; Smathers & Sammons, 2020)(Alharthi, Khalifa, Ameen, Isaac, & Al-Shibami, 2019)(Haddad et al., 2020)(Aldhaheri, Ameen, & Isaac, 2020; Alshamsi, Ameen, Nusari, Abuelhassan, & Bhumic, 2019)(Albreiki, Ameen, & Bhaumik, 2019; Albreiki, Ameen, & Bhaumik, 2019). That is the more resources are being allocated more effectively and efficiently to a trained employee that will ensure maximum utilization of these resources. The more they think training have increased their productivity, enhanced the quality of the service, helped them to improve quantity.

Lastly, the results revealed that resources available significantly mediates the relationship between training and employee performance (Afroz, 2018; Al-Mzary, Al-rifai, & Al-Momany, 2015; Kotzé & Nel, 2020; Näyhä, 2020; Othman et al., 2015). Whereby the more the employee received applicable job training, think that the training improved their skills, knowledge, attitude change, new capability, feel satisfied after training, perceived the method of training as effective, and think that the expenditure for employee training is enough. The more they think training have increased their productivity, enhanced the quality of the service, helped them to improve quantity, given that more resources are being allocated more effectively and efficiently to a trained employee that will ensure maximum utilization of these resources.

6. Implications and Conclusion

Research and development is one of the main pillar for organizational effectiveness (Osama Isaac, Abdullah, Ramayah, Mutahar, & Alrajawy, 2018; Isaac, Abdullah, Ramayah, & Mutahar, 2017b). In view of the important role assumed by the three companies through the attained results, it is hence worth mentioning some implications. Necessity that the three companies greatly pay attention to the training programs addressed to the personnel and specially to increase their educational achievements. This research attempted to expand the knowledge in the area of training, employee performance, and resources available in Libya, specifically, Africa Engineering and Projects Company, Libya Investment Embracement Company and Africa Trade & Investment Company. By examining the research model in Libya, this study added valuable knowledge to the area of private and public sectors as well as academic research. Moreover, this study added to the understanding on the importance of the mediating effect of resources available, in the Libyan context. In regards, this finding highlighted the finding that related to the identified objectives, as well as research contribution to different parties. Furthermore, the independent variables could explain 57% of the variation noted in the employee performance. Longitudinal method is recommended for future research for more deep and accurate understanding (Isaac, Abdullah, Ramayah, Mutahar, & Alrajawy, 2017; Isaac, Abdullah, Ramayah, & Mutahar Ahmed, 2017)(Alkatheeri, Ameen, Isaac, Al-Shibami, & Nusari, 2020; Alkatheeri, Ameen, Isaac, Duraisamy, et al., 2020; Alkatheeri, Ameen, Isaac, Nusari, et al., 2020; Haddad et al., 2020). Future research should be conducted to investigate the relationship between variables by conducting cross-cultural studies as recommended by previous studies (Isaac, Abdullah, Ramayah, & Mutahar, 2017a; Isaac, Masoud, Samad, & Abdullah, 2016).

References

- Abdulbaqi Ameen, A., & Ahmad, K. (2011). The role of Finance Information Systems in anti financial corruptions: A theoretical review. In *2011 International Conference on Research and Innovation in Information Systems, ICRIS'11* (pp. 1–6). Ieee. <https://doi.org/10.1109/ICRIIS.2011.6125725>
- Adeyemi, I. I. (2013). Effect of Project Management on the Performance of a Construction Firm in Nigeria. *American International Journal of Contemporary Research*, 3(6), 54–58.
- Afroz, N. N. (2018). Effects of Training on Employee Performance : A Study on Banking Sector, Tangail Bangladesh. *Global Journal of Economic and Business*, 4(1), 111–124. <https://doi.org/10.12816/0048158>
- Al-Mzary, M. M. M., Al-rifai, A. D. ., & Al-Momany, M. O. E. (2015). Training and its impact on the performance of employees at Jordanian universities from the perspective of employees : The case of Yarmouk University. *Journal of Education and Practice*, 6(32), 128–140. <https://doi.org/http://iiste.org/Journals/index.php/JEP>

- Albreiki, S., Ameen, A., & Bhaumik, A. (2019). Impact of Internal Government Efficiency and Service Delivery Infrastructure on the Smart Government Effectiveness in UAE. *International Journal on Emerging Technologies*, 10(1a), 124–131.
- Albreiki, S., Ameen, A., & Bhaumik, A. (2019). The Influence of Quality of Knowledge Management on the Smart Government: Literature Review. *International Journal on Emerging Technologies*, 10(1a), 105–114.
- Aldhaheeri, F., Ameen, A., & Isaac, O. (2020). The Influence of Strategy Formulation (Vision, Mission, and Goals) on the Organizational Operations. *Journal of Critical Reviews*, 7(17), 1932–1941. <https://doi.org/10.31838/jcr.07.17.240>
- Aldholay, A., Abdullah, Z., Isaac, O., & Mutahar, A. M. (2019). Perspective of Yemeni students on use of online learning Extending the information systems success model with transformational leadership and compatibility. *Information Technology & People*, 1(1), 0959–3845. <https://doi.org/10.1108/ITP-02-2018-0095>
- Alharthi, B. A. F. H., Khalifa, G. S. A., Ameen, A., Isaac, O., & Al-Shibami, A. H. (2019). Investigating the Influence of Strategic Planning on University Operational Performance: The Mediating Role of Organizational Commitment in UAE. *International Business Management*, 13(2), 49–62.
- Alkatheeri, Y., Ameen, A., Isaac, O., Al-Shibami, A., & Nusari, M. (2020). The Mediation Effect of Management Information Systems on the Relationship between Big Data Quality and Decision making Quality. *TEST Engineering & Management*, 82(1), 12065–12074.
- Alkatheeri, Y., Ameen, A., Isaac, O., Duraisamy, B., Nusari, M., & Gamal, S Khalifa, A. (2020). The Effect of Big Data on the Quality of Decision-Making in Abu Dhabi Government Organisations. *3rd International Conference on Data Management, Analytics & Innovation 2019*, 50.
- Alkatheeri, Y., Ameen, A., Isaac, O., Nusari, M., Duraisamy, B., & Khalifa, G. S. A. (2020). The Effect of Big Data on the Quality of Decision-Making in Abu Dhabi Government Organisations. In *Advances in Intelligent Systems and Computing* (Vol. 1016, pp. 231–248). https://doi.org/10.1007/978-981-13-9364-8_18
- Alrajawy, I., Daud, N. M., Isaac, O., & Mutahar, A. M. (2017). Examine Factors Influencing the Intention to use Mobile Learning in Yemen Public Universities. *Asian Journal of Information Technology*, 16(2), 287–297. <https://doi.org/10.3923/ajit.2017.287.297>
- Alrajawy, I., Isaac, O., Ghosh, A., Nusari, M., Al-Shibami, A. H., & Ameen, A. (2018). Determinants of Student's Intention to Use Mobile Learning in Yemeni Public Universities: Extending the Technology Acceptance Model (TAM) with Anxiety. *International Journal of Management and Human Science (IJMHS)*, 2(2), 1–9.
- Alrajawy, I., Mohd Daud, N., Isaac, O., & Mutahar, A. M. (2016). Mobile Learning in Yemen Public Universities: Factors Influence student's Intention to Use. *The 7th International Conference on Postgraduate Education, Universiti Teknologi MARA (UiTM), Malaysia*, 1050–1064.
- Alshamsi, O., Ameen, A., Nusari, M., Abuelhassan, A. E., & Bhumic, A. (2019). Towards a Better Understanding of Relationship between Dubai Smart Government Characteristics and Organizational Performance. *International Journal of Recent Technology and Engineering (IJRTE)*, 8(2S10), 310–318. <https://doi.org/10.35940/ijrte.B1052.0982S1019>
- Ameen, A., & Ahmad, K. (2012). Towards Harnessing Financial Information Systems in Reducing Corruption : A Review of Strategies. *Australian Journal of Basic and Applied Sciences*, 6(8), 500–509.
- Ameen, A., & Ahmad, K. (2013a). A Conceptual Framework of Financial Information Systems to reduce corruption. *Journal of Theoretical and Applied Information Technology*, 54(1), 59–72.
- Ameen, A., & Ahmad, K. (2013b). Proposing Strategy for Utilizing Financial Information Systems in Reducing Corruption. In *3rd International Conference on Research and Innovation in Information Systems – 2013 (ICRIIS'13)* (Vol. 2013, pp. 75–80).
- Ameen, A., & Ahmad, K. (2014). A Systematic Strategy for Harnessing Financial Information Systems in Fighting Corruption Electronically. In *Knowledge Management International Conference (KMICe) 2014, 12 – 15 August 2014, Malaysia* (pp. 12–15).
- Ameen, A., & Ahmad, K. (2017). Information Systems Strategies to Reduce Financial Corruption. In S. M. Benlamri R. (Ed.), *Springer Proceedings in Business and Economics* (Vol. 1, pp. 731–740). Dubai, UAE: Springer. https://doi.org/10.1007/978-3-319-43434-6_65
- Ameen, A., Al-ali, D., Isaac, O., & Mohammed, F. (2020). Examining relationship between service quality , user satisfaction , and performance impact in the context of smart government in UAE. *International Journal of Electrical and Computer Engineering (IJECE)*, 10(6), 6026–6033. <https://doi.org/10.11591/ijece.v10i6.pp6026-6033>
- Ameen, A., Alfalasi, K., Gazem, N. A., & Isaac, O. (2020). Impact of System Quality, Information Quality, and

- Service Quality on Actual Usage of Smart Government. In *2019 First International Conference of Intelligent Computing and Engineering (ICOICE)* (pp. 1–6). Hadhramout, Yemen: IEEE. <https://doi.org/10.1109/ICOICE48418.2019.9035144>
- Ameen, A., Almari, H., & Isaac, O. (2019). Determining underlying factors that influence online social network usage among public sector employees in the UAE. In *Advances in Intelligent Systems and Computing*. https://doi.org/10.1007/978-3-319-99007-1_87
- Ameen, A., Almari, H., Isaac, O., & Mohammed, F. (2019). Investigating the Key Factors Influencing the Use of Online Social Networks in Public Sector Context in the UAE. *International Journal of Innovation*, 7(3), 392–411. <https://doi.org/10.5585/iji.v7i3.347>
- Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*. <https://doi.org/10.1177/014920639101700108>
- Barney, J. B., & Hesterly, W. S. (2014). *Strategic Management and Competitive Advantage: Concepts and Cases* (5th edition). New Jersey: Pearson.
- Chin, W. W. (1998a). Issues and opinion on structural equation modeling. *MIS Quarterly*, 22(1), 7–16.
- Chin, W. W. (1998b). *The partial least squares approach to structural equation modeling*. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–358). New Jersey: Lawrence Erlbaum Associates. Mahwah, NJ: Lawrence Erlbaum.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). London: Routledge.
- Falola, H. O., Osibanjo, a O., & Ojo, S. I. (2014). Effectiveness of Training and Development on Employees ' Performance and Organisation Competitiveness in the Nigerian Banking Industry. *Bulletin of the Transilvania University of Brasov Series V: Economic Sciences*, 7(56), 161–170.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Haddad, A., Ameen, A., Isaac, O., Alrajawy, I., Al-Shbami, A., & Midhun Chakkaravarthy, D. (2020). The Impact of Technology Readiness on the Big Data Adoption Among UAE Organisations. In N. Sharma, A. Chakrabarti, & V. E. Balas (Eds.), *Data Management, Analytics and Innovation* (pp. 249–264). Singapore: Springer Singapore. https://doi.org/https://doi.org/10.1007/978-981-13-9364-8_19
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.). London: Thousand Oaks: SAGE.
- Hanaysha, J. (2016). Examining the Effects of Employee Empowerment, Teamwork, and Employee Training on Organizational Commitment. *Procedia - Social and Behavioral Sciences*, 229, 298–306. <https://doi.org/10.1016/j.sbspro.2016.07.140>
- Isaac, O., Masoud, Y., Samad, S., & Abdullah, Z. (2016). The mediating effect of strategic implementation between strategy formulation and organizational performance within government institutions in Yemen. *Research Journal of Applied Sciences*, 11(10), 1002–1013. <https://doi.org/10.3923/rjasci.2016.1002.1013>
- Isaac, Osama, Abdullah, Z., Aldholay, A. H. A. H., Ameen, A., Abdulbaqi Ameen, A., & Ramayah, T. (2019). Antecedents and Outcomes of Internet Usage within Organizations in Yemen: An extension of the Unified Theory of Acceptance and Use of Technology (UTAUT) Model. *Business Process Management Journal, Emerald*, 24(4), 335–354. <https://doi.org/https://doi.org/10.1016/j.apmr.2018.12.003>
- Isaac, Osama, Abdullah, Z., Aldholay, A. H., & Ameen, A. (2019). Antecedents and outcomes of internet usage within organisations in Yemen: An extension of the Uni fi ed Theory of Acceptance and Use of Technology (UTAUT) model. *Asia Pacific Management Review*, 24(1), 335–354. <https://doi.org/10.1016/j.apmr.2018.12.003>
- Isaac, Osama, Abdullah, Z., Ramayah, T., & Mutahar, A. (2017a). Internet usage , user satisfaction , task-technology fit , and performance impact among public sector employees in Yemen. *The International Journal of Information and Learning Technology*, 34(3), 210–241. <https://doi.org/10.1108/IJILT-11-2016-0051>
- Isaac, Osama, Abdullah, Z., Ramayah, T., & Mutahar, A. M. (2017b). Internet Usage within Government Institutions in Yemen: An Extended Technology Acceptance Model (TAM) with Internet Self-Efficacy and Performance Impact. *Science International*, 29(4), 737–747.
- Isaac, Osama, Abdullah, Z., Ramayah, T., & Mutahar, A. M. (2017c). Internet Usage and Net Benefit among Employees Within Government Institutions in Yemen: An Extension of Delone and Mclean Information Systems Success Model (DMISM) with Task-Technology Fit. *International Journal of Soft Computing*, 12(3), 178–198. <https://doi.org/10.3923/ijscmp.2017.178.198>
- Isaac, Osama, Abdullah, Z., Ramayah, T., & Mutahar, A. M. (2018). Factors determining user satisfaction of internet usage among public sector employees in Yemen. *International Journal of Technological Learning, Innovation and Development*, 10(1), 37–68. <https://doi.org/10.1504/IJTLID.2018.10012960>

- Isaac, Osama, Abdullah, Z., Ramayah, T., Mutahar, A. M., & Alrajawy, I. (2017). Towards a Better Understanding of Internet Technology Usage by Yemeni Employees in the Public Sector: An Extension of the Task-Technology Fit (TTF) Model. *Research Journal of Applied Sciences*, 12(2), 205–223. <https://doi.org/10.3923/rjasci.2017.205.223>
- Isaac, Osama, Abdullah, Z., Ramayah, T., Mutahar, A. M., & Alrajawy, I. (2018). Integrating User Satisfaction and Performance Impact with Technology Acceptance Model (TAM) to Examine the Internet Usage Within Organizations in Yemen. *Asian Journal of Information Technology*, 17(1), 60–78. <https://doi.org/10.3923/ajit.2018.60.78>
- Isaac, Osama, Abdullah, Z., Ramayah, T., & Mutahar Ahmed, M. (2017). Examining the Relationship Between Overall Quality, User Satisfaction and Internet Usage: An Integrated Individual, Technological, Organizational and Social Perspective. *Asian Journal of Information Technology*, 16(1), 100–124. <https://doi.org/10.3923/ajit.2017.100.124>
- Isaac, Osama, Aldholay, A., Abdullah, Z., & Ramayah, T. (2019). Online learning usage within Yemeni higher education: The role of compatibility and task-technology fit as mediating variables in the IS success model. *Computers & Education*, 136(1), 113–129. <https://doi.org/https://doi.org/10.1016/j.compedu.2019.02.012>
- Jaworski, C., Ravichandran, S., Karpinski, A. C., & Singh, S. (2018). The effects of training satisfaction, employee benefits, and incentives on part-time employees' commitment. *International Journal of Hospitality Management*, 74(February 2017), 1–12. <https://doi.org/10.1016/j.ijhm.2018.02.011>
- Joseph F. Hair Jr , William C. Black , Barry J. Babin, R. E. A. (2010). *Multivariate Data Analysis* (7th ed.). Prentice Hall.
- Jugdev, K., Mathur, G., & Fung, T. S. (2007). Project management assets and their relationship with the project management capability of the firm. *International Journal of Project Management*, 25(6), 560–568. <https://doi.org/10.1016/j.ijproman.2007.01.009>
- Kline, R. B. (2010). *Principles and practice of structural equation modeling* (3rd ed.). New York: The Guilford Press.
- Kotzé, M., & Nel, P. (2020). The influence of job resources on platinum mineworkers' work engagement and organisational commitment: An explorative study. *Extractive Industries and Society*, 7(1), 146–152. <https://doi.org/10.1016/j.exis.2020.01.009>
- Kour, J., El-Den, J., & Sriratanaviriyakul, N. (2019). The role of positive psychology in improving employees' performance and organizational productivity: An experimental study. *Procedia Computer Science*, 161, 226–232. <https://doi.org/10.1016/j.procs.2019.11.118>
- Lee, Y. M., & Sozen, E. (2016). Food allergy knowledge and training among restaurant employees. *International Journal of Hospitality Management*, 57, 52–59. <https://doi.org/10.1016/j.ijhm.2016.05.004>
- Mutahar, Ahmed M, Mohd Daud, N., Ramayah, T., Isaac, O., & Alrajawy, I. (2017). Integration of Innovation Diffusion Theory (IDT) and Technology Acceptance Model (TAM) to Understand Mobile Banking Acceptance in Yemen: The Moderating Effect of Income. *International Journal of Soft Computing*, 12(3), 164–177. <https://doi.org/10.3923/ijscmp.2017.164.177>
- Mutahar, Ahmed M, Mohd Daud, N., Ramayah, T., Putit, L., Isaac, O., & Alrajawy, I. (2016). The Role of Trialability, Awareness, Perceived Ease of Use, and Perceived Usefulness in determining the Perceived Value of Using Mobile Banking in Yemen. *The 7th International Conference on Postgraduate Education, Universiti Teknologi MARA (UiTM), Malaysia*, 884–898.
- Mutahar, Ahmed Mohammed, Daud, N. M., Thurasamy, R., Isaac, O., & Abdulsalam, R. (2018). The Mediating of Perceived Usefulness and Perceived Ease of Use : The Case of Mobile Banking in Yemen. *International Journal of Technology Diffusion*, 9(2), 21–33. <https://doi.org/10.4018/IJTD.2018040102>
- Näyhä, A. (2020). Finnish forest-based companies in transition to the circular bioeconomy - drivers, organizational resources and innovations. *Forest Policy and Economics*, 110(June 2019), 101936. <https://doi.org/10.1016/j.forpol.2019.05.022>
- Newbert, S. L. (2007). Empirical research on the resource-based view of the firm: an assessment and suggestions for future research. *Strategic Management Journal*, 28(2), 121–146. <https://doi.org/10.1002/smj.573>
- Nzeru, W., Nzimakwe, I., Mutambara, E., & Munapo, E. (2015). Impact of Training and Development on Employees' Performance. *The Indian Economic Journal*, 63(3), 448–472. <https://doi.org/10.1177/0019466220150308>
- Othman, R., Arshad, R., Aris, N. A., & Arif, S. M. M. (2015). Organizational Resources and Sustained Competitive Advantage of Cooperative Organizations in Malaysia. *Procedia - Social and Behavioral Sciences*, 170, 120–127. <https://doi.org/10.1016/j.sbspro.2015.01.021>
- Otuko, A. H., Kimanichege, G., & Douglas, M. (2013). Effect Of Training Dimensions On Employee ' s Work Performance : A Case Of Mumias Sugar Company In Kakamega County. *International Journal of Business*

- and *Management Invention*, 2(9), 138–149.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers*, 36, 717–731.
- Ringle, C. M., Wende, S., & Becker, J.-M. (2015). SmartPLS 3. Bonningstedt: SmartPLS.
- Roberts, J. A., & David, M. E. (2020). Boss phubbing, trust, job satisfaction and employee performance. *Personality and Individual Differences*, 155(October 2018), 109702. <https://doi.org/10.1016/j.paid.2019.109702>
- Rusu, G., Avasilcăi, S., & Huțu, C.-A. (2016). Organizational Context Factors Influencing Employee Performance Appraisal: A Research Framework. *Procedia - Social and Behavioral Sciences*, 221, 57–65. <https://doi.org/10.1016/j.sbspro.2016.05.090>
- Salem, I. E. B., & Abdien, M. K. (2017). Implementation of employee cross-training during perilous conditions in hotels. *Tourism Management Perspectives*, 23, 68–74. <https://doi.org/10.1016/j.tmp.2017.05.005>
- Sharma, S., & Taneja, M. (2018). The effect of training on employee performance. *International Journal of Recent Technology and Engineering*, 7(4), 6–13.
- Smathers, S. A., & Sammons, J. S. (2020). A Strategy for Expanding Infection Prevention Resources to Support Organizational Growth. *American Journal of Infection Control*. <https://doi.org/10.1016/j.ajic.2020.04.008>
- Sudhana, P., Ameen, A., & Isaac, O. (2020). A multi-theoretical framework to better understand the college major choice in arts and design. *Journal of Applied Research in Higher Education*. <https://doi.org/10.1108/JARHE-11-2019-0277>
- Tuan, N., & Takahashi, Y. (2010). *ORGANISATIONAL CAPABILITIES, COMPETITIVE ADVANTAGE AND PERFORMANCE IN SUPPORTING INDUSTRIES IN VIETNAM*. *Asian Academy of Management Journal* (Vol. 15).
- Van Thielen, T., Bauwens, R., Audenaert, M., Van Waeyenberg, T., & Decramer, A. (2018). How to foster the well-being of police officers: The role of the employee performance management system. *Evaluation and Program Planning*, 70(January), 90–98. <https://doi.org/10.1016/j.evalprogplan.2018.07.003>
- Xie, X., Zhu, Q., & Qi, G. (2020). How can green training promote employee career growth? *Journal of Cleaner Production*, 259, 120818. <https://doi.org/10.1016/j.jclepro.2020.120818>
- Zahid Hussain Bhat, Z. H. B. (2011). Impact of Training on Employee Performance: A Study of Retail Banking Sector in India. *Indian Journal of Applied Research*, 3(6), 292–293. <https://doi.org/10.15373/2249555x/june2013/97>