

The Relationship of Innovation Capabilities towards Employees' Performance: Mediating Effect of Cultural Diversity in UAE Manufacturing Companies

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Abstract – Innovation capabilities of employees was considered as the main strategic activity of administered as a means of objective assessment of the individual performance of various professionals in MOI UAE. This study first aimed to identify whether employees' innovation capabilities in MOI would exhibit more better performance in UAE. Secondly, this study also aimed to identify the theoretical issues related with cultural and technological diversity with individual innovation capabilities and gave the ways to improve their performance in MOI UAE setting. This study proposes a conceptual framework for understanding innovation process and knowledge management aspects of innovation capability which would influence individual performance. The conceptual framework includes cultural diversity as mediating variable in the effect of innovation capability which would influence individual performance. The conceptual carry out through empirical review of literature and development of hypothesis. The adaption of well-structured questionnaire used in this study. The study also validates the proposed conceptual framework using a second-order confirmatory factor analysis technique, namely, structural equations modeling, with the data collected from 607 followers from 6 MOI departments in the UAE. The findings suggest that innovation process and knowledge management aspects of innovation capability has significant positive impact on individual performance. Moreover, cultural diversity has partial mediation effect in the relationship between innovation capability and individual performance. This study contributes to the research that identifies individual performance influenced by innovation capability that can affect organizational performance, particularly in the context of UAE MOI departments.

Keywords: Innovation Capability, Cultural Diversity, Individual Performance, Ministry of Interior, Confirmatory Factor Analysis and Structural Equation Modelling.

1 Introduction

Many institutions seek to develop innovative capabilities in a specific way to achieve valuable results, expand revenue, and achieve greater execution [15]. Numerous studies have shown a link in innovative and organizational performance. It is found that innovation is one of the important aspects of organizational achievement [43]. The organization working under ministries takes innovation as a worth difficult and challenging source to gain benefits [7]. Innovation can be introduced only if there is development and technical facilities in organizations. Technology learning process is based on innovative capabilities that are resulted through technical development along with operational capabilities with respect of the procedures of management and transaction in order to show management capabilities and trading [6].

Innovation acts deal with organizational mechanism that produce innovative goods, systems, and procedures considered mandatory for the adaption of changing the environment of market, modes of competition, and technologies as well [37]. In addition, the individual performance and innovative capability have positive link that mean good organizations along with good innovative capability attains high performance and satisfaction [16]. [13] explain that innovative capability is linked with rest of the capabilities of organization. Likewise, innovative capability used to define like an innovative practice, novel product, emerging

technology, and new-fangled administrative exercise with new procedure. Innovative capability depends upon the procedures of internal reinforcement. Therefore, the current procedure is no doubt a significant system for the measurement, innovative reinforcement, and stimulation.

Innovation has developed a vital role for a number of organizations and it is considered crucial deliberately for various organizations for achieving competitive benefit [50]. The previous researches showed the results that the rewards for the workers brought a number of changes in the working environment at organizations on the behalf of introducing novel approaches to gain benefits and scope in the markets [37,41] The change being the part of Innovation is the key aspect for the development of the organizations [34]. Furthermore, numerous organizations pursue to grow their innovative capabilities in a direction to reach an efficient outcome, profits' maximization, and attain betterment in performance [24].

Many studies have emphasized on the bond of innovation and organizational performance, and revealed the prominence of refining diverse innovative capability that directs to the performances' growth and successes of ministries [9, 11, 17, 26, 28 & 47]. Numerous researchers indicated that generally several emerging capabilities used to affect organizational performance. Therefore, a small number of researchers conducted studies to investigate the impact of innovation in terms of organizational performance that is further divided into operational and financial performance [27, 10].

According to [2] in the context of United Arab Emirates, there are several issues regarding the performance of individuals at government and private organizations from last six years, are due to the lack of leadership skills, lack of effective technological strategies, cultural disposition and diversity, lack of competency, and ICT infrastructure [33]. Moreover, as per the report of Department of Economic Development (2012-2016) indicated that there is a shear need to transform and enhance the performance of workforce through innovation capabilities by developing a strong supportive infrastructure with diverse technologies that can access the effective physical (e.g.ICT) and financial resources to create, transfer, and commercialise the knowledge [49]. The constant change of workforce and management structure with the simplification of working policies and procedures contribute significantly to develop most sufficient learning environment within the organization [49].

Additionally, the statistics report of the Centre of UAE ministry of interior, the performance indicators and the innovation process have positive relationship which is further based on the

organizational innovation capabilities for the employees [55]. Also, the organizations should provide opportunities to their employees to enhance their performance and innovative capabilities to deal with the new organizational challenges as per the market demand [45].

Furthermore, during last few years the employees performance issues of Interior Ministry of UAE has been highlighted due to the more than 40 percent employees lack of competency and teamwork skills [55]. Indifference of some employees and lack of spirit of cooperation have negative influence on the performance level of institutional work [55]. According to the latest statistics issued by UAE Ministry of the Interior, leaving the job without permission, absenteeism, and non-compliance with instructions are the most important behaviours that influence the level of employees' loyalty which further affect the process of innovation and development in accordance with institutional performance [55].

2 Innovation Capability

Innovation capability is defined by different researchers. According to [11] the level of organizational creativity is known as innovative capability. [20] elucidates innovative capability as a link between innovation capacity and exports. Innovative capability can be labelled in extensive array and it encounters the requirements of the strategy of the company on various levels, moreover, it adapts numerous conditions and competitive environment as well [23]. Based on the perspective of the company, the ability to innovate it, is considered to be crucial for companies that are strategically competitive, on the basis of evolutionary theory, which is considered to be the key aspect to acquire and maintain competitiveness to enhance benefits and improve the performance in business in a dynamic environment [52]. Innovation capabilities involve internal processes, culture of innovation, and capabilities to understand the atmosphere [36].

2.1 Innovation Process

MOI, UAE needs new ideas to keep operational product and service fresh, therefore, these processes will bring the ideas to the reality and develop new roles to direct new functions for the success in future. Innovation process concentrates primarily on management approaches, knowledge management, production methods, idea generation, information, technology, employees, finance, and marketing. These are all important factors for developing innovation stages of generating, developing, and implementing new products, technology, services or processes. The innovation process also depends on the ability of the firm to exploit and reconfigure its knowledge, resources, and capabilities to make them comply with the creative production requirements,

which in turn is critical to a firm's performance and success [38]. Innovative companies invest in and develop their capabilities of executing effective and successful innovation processes and therefore achieve higher business performance [31].

Moreover, [4], in a study of 385 employees discovered a positive relationship between innovation and employees' performance. The study argued that to encourage employees' innovative capability, they should build interactive connections with culture of workplace and technology to support employees' intellectually. Similarly, [51] found a positive relationship among innovation process and employees' performance. The study claimed that innovation process in organization showing that employees are more professional and motivating towards performance. In specific, management who shows consideration and trust for the workers and indicated that they are appreciative when employees meet goals. [24] noticed that management which conducts their organization's employees through innovation process are motivated to make solutions against problems and obstacles, to follow and satisfy their knowledgeable capabilities and to use their creative performance. According to the study of [44], innovation process help employees focus on their performance and consequently motivates them to seek out better methods of job performance. The study of [14], drawing from 318 employees of production compines, found a significant and positive association among innovation process and employees' performance. The study argued that innovation process can support and encourage performance of employees. Thus the hypothesis is;

Hypothesis 1: The innovation process is significantly and positively associated with the innovation capability towards individual performance in the interior ministry of UAE.

2.2 Knowledge Management

MOI, UAE has lack of connection between knowledge and innovation, so in this research the researcher is going to examine the knowledge management and increase the employees' creativity.

Knowledge management improves the connection between innovation and knowledge through providing a framework for managing and using knowledge for innovation management. New products, processes, and services basically embody new knowledge. Moreover, managing knowledge in the company involves considering several major practices such as managing and developing the intellectual capital of the company which is considered as a key part of innovation infrastructure, motivating and facilitating communication, and knowledge-sharing in order to improve employee's knowledge and to increase employee's creativity. These practices are very important for developing an organization's capability to innovate as well as

developing technologies and gaining patents as a result of these practices which in turn leads to achieving higher performance [12, 41 & 53]. [25] emphasised that knowledge management appears as one of the strongest influences on employees' innovative capabilities and their performance. The stud further argued that knowledge management can play a vital role because it helps produce an innovative cultural environment in which employees feel able to go beyond standard expectations and performance. According to [32], knowledge management not only work as performance models for workers, but also are pivotal in supporting innovative capabilities and encouraging attitudes that are useful to creative performance. The hypothesis is;

Hypothesis 2: Knowledge management is significantly and positively associated with the innovation capability towards individual performance in the interior ministry of UAE.

2.3 Cultural Diversity

The cultural diversity is also considered as a one of the most dynamic factors which affects the performance of employees in which social and professional grown rapidly accelerate. But, at the same time it has quite positive impact for learning new approaches ideas and technologies based on others information and experiences. Moreover, in this proposed study the role of cultural diversity will also identify for the innovation capacity of UAE employees for the improvement in their performance.

The significant and positive relationships reported among Innovation capabilities such as strategic planning, leadership, capability development, innovation process, knowledge management, cultural diversity, and employees' performance are uniform with the findings of researchers' studies like [8, 40, 35 & 3]. For instance, the study of [8] describing from a sample of 263 employees working in equipment retail, shipbuilding, and transportation found that strategic planning was positively related to cultural diversity. The study argued that strategic planning behaviour positively affects cultural diversity because it is attentive on succeeding performance beyond the job description and expectations.

The findings of this study are also similar to what [40] revealed in a study of 324 employees. The study found a positive relationship between cultural diversity and employees' performance. Performance regularly consist of a departure from the benchmark way of working. [56] argued that since cultural diversity contains going beyond the work, it is usually connected with the development of performance. [35] who studied a sample of 289 employees in Spain, discovered that cultural diversity positively influences leadership capability

towards employees' performance. Cultural diversity involves persevering in the face of obstacles and according to [35] innovative capabilities necessitates massive determination, effort and a person with a high level of multiplicity may be able to continue.

The results of this study indicate that in MOI in Abu Dhabi cultural diversity are able to partially adopt the innovative capabilities to their performance. In spite of the limited influence of cultural diversity, the vital role of this aspect has been recognized as a key prerequisite of employees' innovation capabilities and their performance in the relevant literature [3]. Employees' performance can be implemented and produced by them as appropriate solutions to the problems in order to modify the cultural quo of the organization [3].

Hypothesis 3: Innovation capability is significantly and positively associated with the cultural diversity in the interior ministry of UAE.

Hypothesis 4: Cultural diversity is significantly and positively associated with the individual performance in the interior ministry of UAE.

Hypothesis 5: There is a significant mediating role of cultural diversity between the innovation capabilities and individual performance at interior ministry of UAE.

3 Conceptual Framework

In previous studies innovation capability and individual performance has studied without any mediator or moderator effect. Whereas, previous studies examined the aspects of innovation capability and their association with individual performance. However, few studies examined innovation capability aspects as a whole in relation to achieving better performance. These studies concentrate only on the factors that are related to innovation capability and their influence on innovation performance. However, the aim of this research is to investigate the impact of innovation capability for the improvement if individual performance with the mediating role of technological and cultural diversity. In this proposed study a conceptual research framework has been developed by modifying and integrating two frameworks proposed by [10, 47]. The conceptual framework is presented in Figure 1.

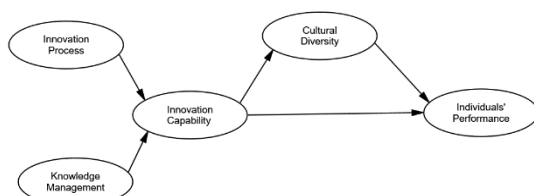


Figure 1: Conceptual Framework

4 Method

4.1 Sample

As was discussed in Chapter One, the aim of this study was to evaluate the proposed model determining employee's perspectives. According to [46], sample techniques derive in two wide-ranging groups. One is probability and non-probability sampling. Usually, probability sampling is chosen once total generalizability is precarious for the study. Though, for probability sampling, a requirement is register all the essentials in the sample frame which is difficult if the research is employees oriented and country based. This in core means that all the probability sampling methods such as simple random, systematic, stratified random, cluster, and multi-cluster technique would be imaginable in a research of this scale. Based on [30]; the effective sampling should be 384 employees. However, considering the previous study feedback rate is 25%, the final sampling is 2032 (stratified sampling).

Table 1: Sample of major departments of MOI employees in Abu Dhabi

Sectors	Population of Employees	Percentage	Sample
Assistant Undersecretary for Security Affairs	2418	12.40%	331
Undersecretary Office	2886	14.80%	338
Civil Defence GHQ	4407	22.60%	351
General Secretariat of the Minister's Office	3198	16.40%	341
Police GHQs	4758	24.40%	354
Assistant Undersecretary for Resources & Support Services	1833	9.40%	317
Total	19,500	100%	2,032

4.2 Measures

For this purpose, the scale items selected for this study were chosen from the literature that are most expressive of employees perception. Another reason of this study was to include such scale items that can measure and determine definitions and dimensions extent to which they represented the content of each

variables used in this research. In the same way the recommendation of [22] that “The scholar maybe would like to include scale items with diverse effect of meaning because the original list will be polished to create the final measure” Finally, all items selection have been adapted from past studies with reliable and valid measures of variables.

Using 7-point Likert scales to operationalised constructs, vary between 1= strongly disagree to 7 = strongly agree. According to few researchers The Likert-scales were selected because they take less time, and were easy to answer [1]. [42] presented, an important disadvantage of the Likert scale is its shortage of reproducibility. Similarly [21] argued it is much needed in numerically ordering respondents. More precisely, the 7-point Likert scale is used extensively in research. Seven-point Likert scale is more accomplished than others as it permits greater judgement and satisfactory differences between people [21].

Table 2: Total of Scale Items with Sources Used in this Study

Constructs	Number of Items	Sources
Innovation Capabilities		
Innovation Process	6	(Wang & Ahmed 2004; Smith et al., 2008; Grabara et al., 2011).
Knowledge Management	5	(Carneiro, 2000; Prajogo & Ahmed, 2006; Smith et al., 2008).
Cultural Diversity	6	(Bukhamsin, 2015; Sampson, 2017)
Individual Performance	10	(Bukhamsin, 2015; Sampson, 2017; Lönnqvist, 2011; Neely et al.,2010)

4.3 Normality Statistics

In this study, skewness and kurtosis have been used for ascertaining the normality of the data. The skewness and kurtosis in this study have been worked out for each construct, which were presented and summarized results in Table 4.9. The generated results show that the skewness and kurtosis were inside the acceptable range of the ± 3 , as suggested by [48].

Table 3: Normality Statistics

Constructs	Range	Mean	St. Dev.	Skewness	Kurtosis
Innovation process	1-7	5.76	0.45	0.245	-0.473
Knowledge management	1-7	6.04	0.41	0.164	-0.091
Cultural Diversity	1-7	6.12	0.53	0.431	-0.264
Individual Performance	1-7	6.07	0.49	0.055	-0.057

4.4 Sample Characteristics

the sample for this study involved employees from different departments of Interior Ministry Of United Arab Emirates. As shows in Table 4.1, a descriptive statistics of respondents based on gender. Thus the findings determined that 81.88% (497 out of 607) of respondents were male, and 18.12% (110 out of 607) were female. Total of 2032 surveys, 607 were return equivalent to a 29.87% response rate. Age of respondents were majority 31 to 35 years old with the percentage of 22.57. Another 21.91% of respondents were 36 to 40 years old. While on the other hand only 1.81% respondents were above 51 years old. The designation of the respondents were 15.49% (94 out of 607) of respondents were manager, 46.79% (284 out of 607) of respondents were supervisor and 37.73 (229 out of 607) were designated as staff. The income of respondents were 13.51% (82 out of 607) of respondents indicated having less than 10,000 AED, 44.15% (268 out of 607) respondents' earning 10,000 to 20,000 AED, 29.82% (181 out of 607) respondents' income 21,000 to 30,000 AED and only 12.52% (76 out of 607) respondents indicated their income were above 30,000 AED. The respondents' kind of work, while the highest median of respondents were at administrative work with percentage of 39.7% (241 out of 607), while the lowest median attained by training with percentage of 5.27 (32 out of 607). Sector of employment were 35.75% (217 out of 607) of respondents indicated the highest median that they had full-time employment in Police GHQ, while 11.70% (71 out of 607) of respondents indicated the lowest median that they had full-time employment in Civil Defense GHQ. Respondents with the highest median experience were those with above 10 years (55.68%). Those who had held experience for 5 to 10 years (28.83%) and less than 5 years (15.49%) had the lowest medians. Qualification of the respondents were 36.08% (219

out of 607) of respondents held bachelor's degrees, 25.21% (153 out of 607) had high school or less, 17.79% (108 out of 607) of respondents hold master's degree, 17.13% (104 out of 607) of respondents hold diploma and 3.79% (23 out of 607) of respondents had Ph.D's degree.

Table 4: Respondents According to Gender

Gender	Number	Percentage
Male	497	81.88%
Female	110	18.12%
Total	607	100%
Age	Number	Percentage
Less than 20	35	5.77%
20-25	55	9.06%
26-30	77	12.69%
31-35	137	22.57%
36-40	133	21.91%
41-45	108	17.79%
46-50	51	8.40%
Above 51	11	1.81%
Total	607	100%
Designation	Number	Percentage
Manager	94	15.49%
Supervisor	284	46.79%
Staff	229	37.73%
Total	607	100%
Income	Number	Percentage
Less than 10,000 AED	82	13.51%
10,000 – 20,000 AED	268	44.15%
21,000 – 30,000 AED	181	29.82%
Above 30,000 AED	76	12.52%
Total	Total	100%
Kind of Work	Number	Percentage
Administrative	241	39.7%
Security	143	23.56%
Technical	41	6.75%
Social	45	7.41%
Traffic	57	9.39%
Civil defence	48	7.91%
Training	32	5.27%
Total	607	100%
Type of Sector	Number	Percentage
Police GHQ	217	35.75%
Civil Defense GHQ	71	11.70%
General Secretariat of the Minister's Office	99	16.31%
Undersecretary Office	75	12.36%

Assistant Undersecretary for Security Affairs	72	11.86%
Assistant Undersecretary for Resources & Support Services	73	12.03%
Total	607	100%
Working Experience	Number	Percentage
Less than 5 years	94	15.49%
From 5 to 10 years	175	28.83%
Greater than 10 years	338	55.68%
Total	607	100%
Qualification	Number	Percentage
High school or less	153	25.21%
Diploma	104	17.13%
Bachelor	219	36.08%
Masters	108	17.79%
PHD	23	3.79%
Total	607	100%

4.5 Reliability

According to [57], "internal consistency signifies to the stage to which respondents are reliable across the items mentioned in questionnaire as measurement scale. Further according to [29] Cronbach's alpha coefficient is used to measured. Cronbach's alpha of 0.70 is considered as a good internal consistency [39]. [29] proposed a guideline for the acceptance of an alpha coefficient:

- an adequate value is greater than 0.70.
- a very good value is greater than 0.80.
- an excellent value is greater than 0.90.

Table 4 showed that the reliabilities of all the constructs used in the study.

Table 5: Reliabilities of the Construct

Construct	Number of Items	Cronbach's Alpha	Acceptance
Innovation Process	6	0.884	Very Good
Knowledge Management	5	0.959	Excellent
Cultural Diversity	6	0.893	Very Good
Individual Performance	10	0.927	Excellent

5 Summarized CFA Results

Two constructs represented innovation capability: innovation process and knowledge management. Items retained after CFA, 5 items represent innovation process and 4 items represent knowledge management. Responses to 9 items were selected to confirmatory factor analysis, and the first model exposed a suitable fit based on the standards for model fit. The single factor loadings expressed that all indicators were meaningful and loaded more than the least standard value of 0.7 [18]. The cultural diversity, construct after CFA 5 items were representing cultural diversity. Ten items represented individual performance before CFA, 2 items were removed during confirmatory factor analysis. Thus, 8 items were representing individual performance. Replies to these 22 items were exposed to factor analysis, and as consequences showed the model comprised these items and fits the data well. Table 4.32 showed the status of retained items after confirmatory factor analysis. The precised confirmatory factor analysis results of all constructs were presented in Table 6 which showed that the fit index for each of the construct is within/close to the agreed limit. Moreover, factor loading for each observed variable is at least 0.40 [19].

Table 6: Variables Status after CFA

Construct	Original Items	Items Retained after CFA	Deleted Items
Innovation Process	6	5	1
Knowledge Management	5	4	1
Cultural Diversity	6	5	1
Individual Performance	10	8	2

Table 7: Summarized CFA Results

Constructs	Chi-Square	df	CMIN/df	GFI	AGFI	CFI	RMSEA	AVE	CR
Innovation Process	268.74	5	2.021	0.9963	0.9931	0.9979	0.064	0.6158	0.888
Knowledge Management	258.17	4	2.134	0.996	0.9922	0.9966	0.063	0.648	0.880

element									
Cultural Diversity	24.842	5	2.024	0.9962	0.9926	0.9978	0.064	0.6288	0.894
Individual Performance	269.75	8	2.383	0.969	0.9922	0.9973	0.072	0.710	0.945

6 Overall Measurement Model

Inspection of standardized residuals specified that all residual values were inside the threshold suggested by [19]. However, modification indices indicated that the indicators IP_6 (innovation process) and IPE_7 (individual performance) had unacceptably high values. After iteratively removing these redundant items, the overall model fitness came up in good shape. The overall measurement model is depicted in Figure 2.

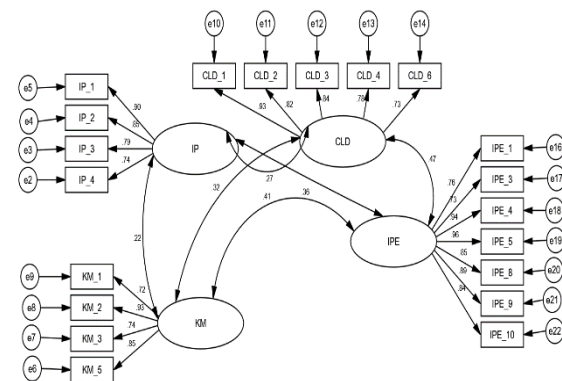


Figure 2: Overall Measurement Model

Chi-square = 902.314, df = 606, GFI = .941, AGFI = .914, CFI = .953, TLI = .937, RMSEA = .041, and Chi-square / df = 1.812

In sum, the confirmatory factor analysis results specified that the overall measurement model is good.

7 Structural Model

In the path diagram shown in Figure 3, the values for the paths connecting constructs with a single-headed arrow represent standardized regression beta weights. As in the measurement model, the values appearing on the edge of the boxes were variance estimates in which the amount of variance in the observed variables is explained by latent variables or factors, and values next to the double headed arrows showed correlations. The evaluation of the structural model of this study is shown in Table 8.

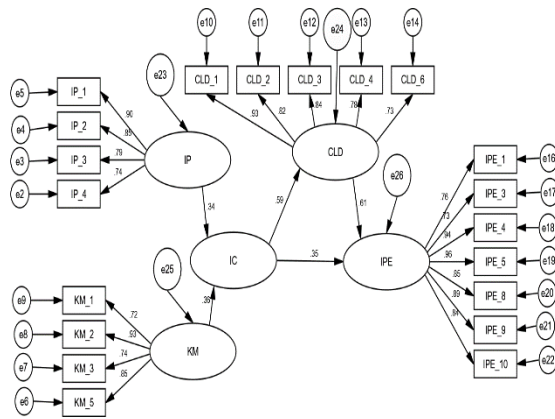


Figure 3: Structural Model

Chi-square = 941.306, df = 606, GFI = .931, AGFI = .908, CFI = .943, TLI = .936, RMSEA = .036, SRMR = .021 and Chi-square / df = 1.647

In the path diagram shown in Figure 3, the values for the paths connecting constructs with a single-headed arrow represent standardized regression beta weights. As in the measurement model, the values appearing on the edge of the boxes were variance estimates in which the amount of variance in the observed variables is explained by latent variables or factors, and values next to the double headed arrows showed correlations. The evaluation of the structural model of this study is showed in Table 8.

Table 8: Testing Hypotheses

Hypothesized Path	Standardized Estimate	T-Value	P-value	Result
H1: IP-->IC	.34	4.415	***	Significant
H2: KM-->IC	.36	4.620	***	Significant
H3: IC -->IPE	.32	4.289	***	Significant
H4: IC-->CLD	.58	6.583	***	Significant
H5: CLD->IPE	.62	7.0197	***	Significant

In testing the hypothesized model, results presented in Table indicated that the hypotheses H1, H2, H3, H4 and H5 were statistically significant and in the hypothesized direction.

8 Culture Diversity as a Mediator

Hypothesis 12 tested the mediating relationship of cultural diversity with nnovation capability and individual performance. The procedure for testing mediator as outlined by Awang et al. (2015) as followed.

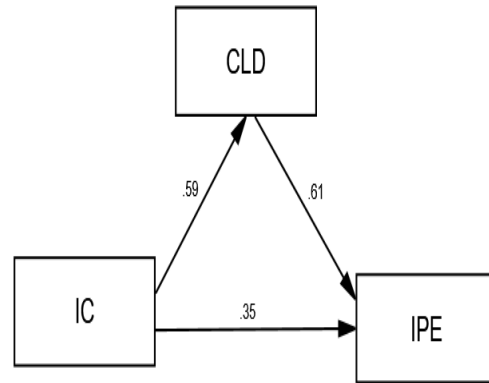


Figure 4: Mediating Effect of Cultural Diversity

The model showed the mediating effects of cultural diversity with nnovation capability and individual performance. The procedure to find the mediation effect given by [58]. The indirect effect in the model is .36 (.59 x .61 = .36), while the direct effect is 0.35. Since the indirect effect is greater than the direct effect, the mediation occurs. The type of mediation was partial mediation since the direct effect of nnovation capability and individual performance was also significant.

The results of any mediation test should be reconfirmed by using the bootstrapping procedure (Awang et al. 2015). This study has conducted the Maximum Likelihood Bootstrapping procedure with bootstrap sample of 1000 and a bias correction confidence interval of 95%. The results obtained as shown in Table 4.36.

Table 9: The Results of Bootstrapping Procedure (Cultural Diversity)

	Indirect Effect	Direct Effect
Bootstrapping Results	0.37	0.34
Bootstrapping P-Value	0.001	0.000
Result	Significant. The mediation occurs	Significant

Thus, the result of mediation test has been confirmed by the bootstrapping procedure. Partial mediation occurs since direct effect was also significant. Hence the hypothesis 12: Mediation effect of is accepted.

9 Conclusion

The evidence from the results of this thesis suggests that the influence of perceived innovation capability on employees' performance is stronger its influence on their in MOI in Abu Dhabi. Employees' performance refers to the implementation stage of innovation capability: perhaps this might be due to

management having more influence at the application stage than at the earlier stage. Evidence from the result phase also shows that the organisational position of management over employees means that they have more access to resources, an essential requirement of successful innovation capabilities. The findings show that innovation capabilities enhancing employees' behaviours can have a greater influence on employees' performance.

The perceptions of innovation capabilities such as strategic planning, leadership management, capability development, innovation process and knowledge management are found to positively and significantly impact on employees' performance in the aggregated sample of MOI in Abu Dhabi [59][60][61][62]. The results of the analysis demonstrate innovation capabilities encourage employees' performance in MOI in Abu Dhabi. This finding may suggest that strategic planning, leadership management, capability development, innovation process and knowledge management are a context-specific phenomenon; however, the demographic analysis shows that respondents were mostly male, well educated and with longer tenure in their current organisation[63][64].

10 Implications of the Research

The central purpose behind this study is to provide findings that may be beneficial to, and practical for, MOI departments in Abu Dhabi. The results of this study conclude that the innovative capabilities of employees is an important factor that affects employees' performance. The effective practice of innovative capabilities of employees is perceived to positively and significantly influence the employees' performance in different departments of MOI. In addition, the effective practice of technological and cultural diversity to affect the impact of innovative capabilities on their employees' performance. The influence of the newly developed construct of innovative capabilities on employees' performance is more pronounced in management with high strategic planning, leadership management, capability development, innovation process and knowledge management, who might best benefit from the dimensions that maximises innovative capabilities and thus enhance its impact on employees' performance. The management of MOI are encouraged to explore the complex reciprocal action between innovative capabilities and employees' performance, together with technological and cultural diversity for innovation as practised in the workplace, as these constructs are recognised as important enablers of employees' performance.

11 Future Research

Researchers in future have to determine whether the projected model of this study holds in different

contexts. As the study examined the linkage between capabilities of employees towards employees' performance in a different environment and found diverse findings to this study. Thus, the implications capacity displayed huge changes in contexts where connections were created on formal arrangements and bonds.

Further research is desirable to spread our understanding of the constructs used in this study, by consuming diverse ways to examine them. This study has exposed several research openings in the field of capabilities of employees towards employees' performance. Other parts that could be of researchers' attention contain, but not limited are, technological and cultural diversity, it produce valuable influence and impact on activities of organizations.

References

- [1] Abascal, E., & Rada, V. D. D. (2014). Analysis of 0 to 10-point response scales using factorial methods: a new perspective. *International Journal of Social Research Methodology*, 17(5), 569-584.
- [2] Ali-Alhashmi. (2017). Exploring Cross Cultural Workforce Management Issues in the UAE. *SSRN*, 1-14.
- [3] Al Saifi, S. A. (2015). Positioning organisational culture in knowledge management research. *Journal of Knowledge Management*, 19(2), 164-189.
- [4] Alawamleh, M., Bani Ismail, L., Aladwan, K., & Saleh, A. (2018). The influence of open/closed innovation on employees' performance. *International Journal of Organizational Analysis*, 26(1), 75-90.
- [5] Awang, Z. Afthanorhan, A., & Asri, M. A. M. (2015). Parametric and Non Parametric Approach in Structural Equation Modeling (SEM): *The Application of Bootstrapping. Modern Applied Science*, 9(9), 58-67.
- [6] Bain, D., & Kleinknecht, A. (Eds.). (2016). *New concepts in innovation output measurement*. Springer.
- [7] Baumgartner, R. J., & Rauter, R. (2017). Strategic perspectives of corporate sustainability management to develop a sustainable organization. *Journal of Cleaner Production*, 140, 81-92.
- [8] Bouncken, R., Brem, A., & Kraus, S. (2016). Multi-cultural teams as sources for creativity and innovation: The role of cultural diversity on team performance. *International Journal of Innovation Management*, 20(01), 1650012.
- [9] Bowen, F. E., Rostami, M., & Steel, P. (2010). Timing is everything: A meta-analysis of the relationships between organizational performance and innovation. *Journal of Business Research*, 63(11), 1179-1185.

- [10] Bukhamsin, M. (2015). Investigating the Relationship between Organizational Innovation Capability and Firm Performance with Irish SMEs.
- [11] Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial marketing management*, 31(6), 515-524.
- [12] Carneiro, A. (2000). How does knowledge management influence innovation and competitiveness?. *Journal of knowledge management*, 4(2), 87-98.
- [13] Castaño, M. S., Méndez, M. T., & Galindo, M. Á. (2016). Innovation, internationalization and business-growth expectations among entrepreneurs in the services sector. *Journal of Business Research*, 69(5), 1690-1695.
- [14] Chen, C. J., & Huang, J. W. (2009). Strategic human resource practices and innovation performance—The mediating role of knowledge management capacity. *Journal of business research*, 62(1), 104-114.
- [15] Christensen, C. M., Bartman, T., & Van Bever, D. (2016). The hard truth about business model innovation. *MIT Sloan Management Review*, 58(1), 31.
- [16] Dadfar, H., Dahlgard, J. J., Brege, S., & Alamirhoor, A. (2013). Linkage between organisational innovation capability, product platform development and performance: The case of pharmaceutical small and medium enterprises in Iran. *Total Quality Management & Business Excellence*, 24(7-8), 819-834.
- [17] Dobni, C. B. (2008). Measuring innovation culture in organizations: The development of a generalized innovation culture construct using exploratory factor analysis. *European Journal of Innovation Management*, 11(4), 539-559.
- [18] F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106-121.
- [19] Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. sage.
- [20] Girma, S., Gong, Y., & Görg, H. (2009). What determines innovation activity in Chinese state-owned enterprises? The role of foreign direct investment. *World Development*, 37(4), 866-873.
- [21] Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education.
- [22] Gilbert A. Churchill, Jr. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, 16(1), 64-73
- [23] Guan, J., & Ma, N. (2003). Innovative capability and export performance of Chinese firms. *Technovation*, 23(9), 737-747.
- [24] Hogan, S. J., & Coote, L. V. (2014). Organizational culture, innovation, and performance: A test of Schein's model. *Journal of Business Research*, 67(8), 1609-1621.
- [25] Inkinen, H. T., Kianto, A., & Vanhala, M. (2015). Knowledge management practices and innovation performance in Finland. *Baltic Journal of Management*, 10(4), 432-455.
- [26] Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. *Journal of business research*, 64(4), 408-417.
- [27] Kafetzopoulos, D., & Psomas, E. (2015). The impact of innovation capability on the performance of manufacturing companies: The Greek case. *Journal of Manufacturing Technology Management*, 26(1), 104-130.
- [28] Keskin, H. (2006). Market orientation, learning orientation, and innovation capabilities in SMEs: An extended model. *European Journal of innovation management*, 9(4), 396-417.
- [29] Kline, R. B. (2010). Promise and pitfalls of structural equation modeling in gifted research.
- [30] Krejcie, R. V., & Daryle, W. Morgan (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 608.
- [31] Lawson, B., & Samson, D. (2001). Developing innovation capability in organisations: a dynamic capabilities approach. *International journal of innovation management*, 5(03), 377-400.
- [32] Masa'deh, R. E., Shannak, R., Maqableh, M., & Tarhini, A. (2017). The impact of knowledge management on job performance in higher education: The case of the University of Jordan. *Journal of Enterprise Information Management*, 30(2), 244-262.
- [33] Mazzucato, M. (2015). *The entrepreneurial state: Debunking public vs. private sector myths* (Vol. 1). Anthem Press.
- [34] Mittal, S., & Dhar, R. L. (2015). Transformational leadership and employee creativity: mediating role of creative self-efficacy and moderating role of knowledge sharing. *Management Decision*, 53(5), 894-910.
- [35] Naranjo-Valencia, J. C., Jiménez-Jiménez, D., & Sanz-Valle, R. (2016). Studying the links between organizational culture, innovation, and performance in Spanish companies. *Revista Latinoamericana de Psicología*, 48(1), 30-41.
- [36] Neely, A., Adams, C., & Crowe, P. (2001). The performance prism in practice. *Measuring business excellence*, 5(2), 6-13.
- [37] Nieves, J., & Segarra-Ciprés, M. (2015). Management innovation in the hotel industry. *Tourism Management*, 46, 51-58.
- [38] Nowacki, R., & Bachnik, K. (2016). Innovations within knowledge management. *Journal of Business Research*, 69(5), 1577-1581.
- [39] Pallant, J. (2013). *SPSS survival manual*. McGraw-Hill Education (UK).
- [40] Peretz, H., Levi, A., & Fried, Y. (2015). Organizational diversity programs across cultures: effects on absenteeism, turnover, performance and innovation. *The International*

- Journal of Human Resource Management*, 26(6), 875-903.
- [41] Prajogo, D. I., & Ahmed, P. K. (2006). Relationships between innovation stimulus, innovation capacity, and innovation performance. *R&D Management*, 36(5), 499-515.
- [42] Rowley, J. (2014). Designing and using research questionnaires. *Management Research Review*, 37(3), 308-330. Sok, P.,
- [43] O'cass, A., Mony Sok, K. (2013). Achieving superior SME performance: Overarching role of marketing, innovation, and learning capabilities. *Australasian Marketing Journal*, 21,161-167.
- [44] Sadikoglu, E., & Zehir, C. (2010). Investigating the effects of innovation and employee performance on the relationship between total quality management practices and firm performance: An empirical study of Turkish firms. *International journal of production economics*, 127(1), 13-26.
- [45] Sarooghi, H., Libaers, D., & Burkemper, A. (2015). Examining the relationship between creativity and innovation: A meta-analysis of organizational, cultural, and environmental factors. *Journal of business venturing*, 30(5), 714-731.
- [46] Saunders, M. N. (2011). *Research methods for business students*, 5/e. Pearson Education India.
- [47] Saunila, M., Ukko, J., & Rantanen, H. (2014). Does innovation capability really matter for the profitability of SMEs?. *Knowledge and Process Management*, 21(2), 134-142.
- [48] Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of vocational behavior*, 80(3), 661-673.
- [49] Seelos, C., & Mair, J. (2017). *Innovation and scaling for impact: How effective social enterprises do it*. Stanford university press.
- [50] Senge, P. M. (2014). *The fifth discipline fieldbook: Strategies and tools for building a learning organization*. Crown Business.
- [51] Shanker, R., Bhanugopan, R., Van der Heijden, B. I., & Farrell, M. (2017). Organizational climate for innovation and organizational performance: The mediating effect of innovative work behavior. *Journal of vocational behavior*, 100, 67-77.
- [52] Sher, P. J., & Yang, P. Y. (2005). The effects of innovative capabilities and R&D clustering on firm performance: the evidence of Taiwan's semiconductor industry. *Technovation*, 25(1), 33-43.
- [53] Smith, C., Valsecchi, R., Mueller, F., & Gabe, J. (2008). Knowledge and the discourse of labour process transformation: nurses and the case of NHS Direct for England. *Work, Employment and Society*, 22(4), 581-599.
- [54] Sok, P., O'Cass, A., & Sok, K. M. (2013). Achieving superior SME performance: Overarching role of marketing, innovation, and learning capabilities. *Australasian Marketing Journal (AMJ)*, 21(3), 161-167.
- [55] Ssc, 2016. Statistic's report of studies, & statistics centre. Ministry of interior.
- [56] Stephens, J. P., & Carmeli, A. (2016). The positive effect of expressing negative emotions on knowledge creation capability and performance of project teams. *International Journal of Project Management*, 34(5), 862-873.
- [57] Tarhini, A., Teo, T., & Tarhini, T. (2016). A cross-cultural validity of the E-learning Acceptance Measure (ELAM) in Lebanon and England: A confirmatory factor analysis. *Education and Information Technologies*, 21(5), 1269-1282.
- [58] Zainudin Awang (2015). SEM Made Simple. MPWS Publisher.
- [59] M. F. Ahmad, R. Z. R. Rasi, N. Zakuan, M. . Haji-Pakir, and J. Takala, "The Impact of ASEAN Free Trade Agreement as Moderator on TQM Performance Model in Malaysia: Survey Result," *Soc. Sci.*, vol. 11, no. 12, pp. 2932–2937, 2016.
- [60] M. F. Ahmad, N. Zakuan, R. Z. R. M. Rasi, M. N. N. Hisyamudin, and J. Takala, "Mediator effect of total productive maintenance between total quality management and business performance: Survey result in Malaysia automotive industry," *Adv. Sci. Lett.*, vol. 21, no. 12, pp. 3723–3725, 2015.
- [61] M. F. Ahmad, M. S. M. Ariff, N. Zakuan, J. Takala, and A. Jusoh, "Relationship amongst TQM , Business Performance , Tools and Techniques : Qualitative Study Result," in In Business Engineering and Industrial Applications Colloquium (BEIAC), 2013 IEEE, 2013, pp. 22–27.
- [62] Shahbaz, M.S., Rasi, R.Z.R.M., Ahmad, M.F.B., Rehman, F., "What is supply chain risk management? A review," *Adv. Sci. Lett.*, vol. 23, no. 9, pp. 9233-9238, 2017.
- [63] M. F. Ahmad, N. Zakuan, A. Jusoh, and J. Takala, "Review of relationship between TQM and business performance," *Appl. Mech.*, vol. 315, no. 2013, pp. 166–170, Apr. 2013.
- [64] M. F. Ahmad, M. S. M. Ariff, N. Zakuan, J. Takala, and A. Jusoh, "Relationship amongst TQM , Business Performance , Tools and Techniques : Qualitative Study Result," in In Business Engineering and Industrial Applications Colloquium (BEIAC), 2013 IEEE, 2013, pp. 22–27.