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Universidad del Zulia
Facultad Experimental de Ciencias
Departamento de Ciencias Humanas
Maracaibo - Venezuela

The moderating effect of age in the relationship between E-government services and job performance

Khaled Mahmoud Almashaqbeh

Usim-Faculty of Leadership and Management Universiti Sains Islam Malaysia

khaledmahmoud@raudah.usim.edu.my

Kalsom bti Ali

Usim-Faculty of Leadership and Management Universiti Sains Islam Malaysia

kalsom@raudah.usim.edu.my

Abstract

Developed countries attained e-government and used it since it achieved positive results in all public and private fields. This study aims at identifying the impact of e-government services on job performance and using age factor as moderating effect on Civil Status & Passport Department in Jordan. The present study investigated the moderation effect of age in the relationship between e-government services and job performance. Data for this study were collected from front line employees in civil status and passport department in Jordan.

Keywords – E-government Services, Job Performance, Civil Status and Passport Department in Jordan.

El efecto moderador de la edad en la relación entre los servicios de gobierno electrónico y el desempeño del trabajo

Resumen

Los países desarrollados alcanzaron el gobierno electrónico y lo utilizaron, ya que logró resultados positivos en todos los campos públicos y privados. El objetivo de este estudio es identificar el impacto de los

servicios de gobierno electrónico en el desempeño laboral y utilizar el factor edad como efecto moderador en el Departamento de Estado Civil y Pasaportes de Jordania. El presente estudio investigó el efecto de moderación de la edad en la relación entre los servicios de gobierno electrónico y el desempeño laboral. Los datos para este estudio se obtuvieron de empleados de primera línea en el departamento de pasaporte y estado civil de Jordania.

Palabras clave: Departamento de servicios de gobierno electrónico, desempeño laboral, estado civil y pasaporte en Jordania

1. INTRODUCTION

In recent years the field of employees' performance has been the focus of both public and private sectors organizations, to manage and control different types of organizations. The measurement of performance in public sector is an increasingly important of public services management and essential to perform measurement approaches. Organization's production is basically measured through unit activities which have progressed and from the measurement of outputs to the measurement of outcomes; this is now the focus of performance in public services (van Thiel and Leeuw, 2002; de Vries, 2010).

Organizations worldwide tend to adopt Information Computer Technology (ICT) at the same pace and speed to provide better services to remain in the competitive market. Many studies have been undertaken to evaluate its impact assessment in relation to cost, quality, revenue, and quality of services delivered to the customers.

Very few researches have been undertaken to assess the impact in relation to the employees' performance, which are the backbone in the

whole process; hence it is found that there is a need for development of more research for assessing impact of e-governance on employees.

Individual employee's performance is a core concept within organisational work where researchers have made progress in clarifying and extending the performance concept (Campbell, 1990; Koopmans et al, 2013).

Clearly, there is a rapid development of E-government services in different sectors, the use of Information Technology (IT) for improving employees' performance within organizations is taken a wide interesting area within modernized and development countries. In general, organizations are introducing information computer technology and developing their own computerized systems for improvement and better efficient work. More revolution and growing of IT utilization might lead to increase the use of IT among employees to improve tasks and work performance.

The concept of E-government refers to the use of information technology as systems by government to provide citizens with more efficient ways to access   government's services as well as to make governmental organization connected together where that will lead to minimize cost and time for all the related parties.

The logic in purpose of e-government is to have a government services that exists everywhere and provide needed service through a well-designed and connected system where the public can receive the services

they are seeking for regardless of their geographical location and at any time.

However, the implementation of such new, innovative techniques and policies must achieve a kind of harmony among personnel within their organization. Therefore, government employees' performance can be affected and the impact of such kind of implementation should be noticed as one of the major outcomes of e-government implementation. Accordingly, a factor influencing employees' performance within the context of e-government zone are an important theme and requires more focus in order to help decision makers within that organization for the needed improvement to strengthen their development plan.

Like many other developing countries, The Hashemite Kingdom of Jordan started a national e-government initiative aiming to streamline government procedures and make online information and government services available to business and citizens.

The Jordanian government has invested heavily in e-government initiatives for the last 12 years to transform from traditional service delivery to more effective and efficient service to deliver high-quality customer-centric and performance-driven services to e-government stakeholders. However, the global rank of e-government readiness as well as regional rank of Jordan is still in low rank according to the global countries but it is still acceptable according to the Arab countries.

This study links application of e-government services to job performance based on the age variable in the civil status and passport

department in Jordan which is considered one of the most important organizations in Jordan, where the study considers the job performance as the feedback of reflections of application of e-government.

This is because performance is one of the outcomes that reflect success of an organization, where success of employees means the success of the organization. This success is embodied in their ability to understand the new technical work methods, and the new task including its challenges to such change, where this is significant to achieve high class performance and create new relationships that operate on team spirit basis.

The focus of this research is to examine the relationship between e-government services and the performance of employees based on the age factor. It is hoped that the findings of this study will have great effect in clarifying the paradigm shift created by the government in performing its services, and extent of success achieved due to such changes.

2. BACKGROUND

2.1 E-government services

Defined broadly, e-government is the use of (ICT) to promote more efficient and effective government, facilitate more accessible government services, allow greater public access to information, and make government more accountable to citizens. Effective e-government is becoming major and important aim for many governments worldwide. Through the use of

different information equipment, e-government allows enterprises and public sectors to receive related services at any place and any time. However, the implementation of such new, innovative policies must achieve a consensus among most of the personnel within the organization. Therefore, the employees' performance can be regarded as the outcome of e-government. Accordingly, factors influencing employees' performance via information systems use becomes an important theme in the context of e-government.

From the other side, employees' performance is a key mechanism in achieving organizational effectiveness. Much research that has developed on performance within the public sector context has tended to concentrate on developing organizational models of performance (Carter, et al., 1992; Behn, 2001; Norman, 2003). However, little work has focused on measuring individual level of performance in the complexity of the public sector.

Moreover, the nature of work, the work environment and sectors, the different types of performance evaluation measures and the various uses of performance information are some of the main challenges in performance management that need to be addressed. This study will explore the concept of e-government as well as employees' motivation and performance.

2.2 Theoretical Framework:
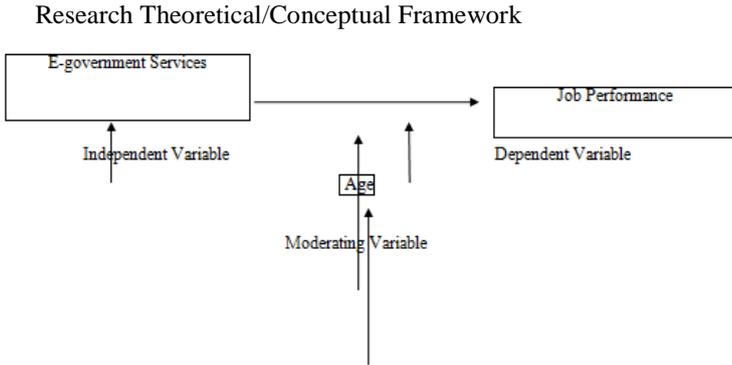
Research Theoretical/Conceptual Framework

Figure 2.1: Theoretical Framework 1

H1: The e-government services application has significant effects on job performance.

H2: The age level has significant effects on job performance.

H3: The age moderates the relationship between e-government services applications and job performance.

3. METHODOLOGY

3.1 Survey Instrument

The method of questionnaire survey distributed to sample of Civil Status and Passport Department employees will be used (Myers & Avison, 2002; Creswell, 2013). The survey was consisted close-ended questions formulated based on objectives and hypotheses of this research. The questionnaire consisted of three sections covering demographic, the independent variable and the dependent variable.

The items were measured using five-point Likert scale with 1 representing "very low" and 5 representing "very high" aimed at measuring the perception of the respondents towards the variables of the study. All the items used in the study were adapted from previous studies. E-government services items were adapted from (John Brooke, 1986), job performance from (Martin, 1989 "Dual-objective Performance Measurement") respectively.

Questionnaire items were translated into the Arabic language and back translated into English to validate translation for the research purposes (Brislin 1970). Back translation was undertaken, by two English lecturers from English Department, Jordan University of Jordan, both fluent, in both Arabic and English. The questionnaire was translated into Arabic language purposely to make it easier since it is their mother tongues.

Following that, it has been back-translated into English in order to make sure the term and message remain the same (Brislin 1986). Both translations revealed that there is no significant difference in the meaning of each items in the questionnaire. Translation into Arabic was to ensure reliability among responses (Bates & Khasawneh 2005). Pre-testing of

questionnaire items was performed with a pilot sample to ensure that the questionnaire was comprehensible. It also helped in the development of an actual survey instrument.

The data sets from the survey were analyzed according to the research objectives (Gould-Williams 2003). A pilot study was undertaken to test the validity and reliability of all items in the questionnaire (Cohen1993). The pilot test is vital to confirming that the questionnaire construct is appropriate to the organization context, the length or number of questions is acceptable, clear and comprehensible to the participants (Hoonakker, Carayon & Schoepke 2005).

Cronbach's alpha coefficient should be at the range of 0.7 to 1.0 to be considered as valid and reliable (Rad & Yarmohammadian 2006). A group of 24 respondents with the similar characteristic of the actual sample were involved in this study. Hair, Money, Samouel and Page (2007) believe that the number of respondents used is sufficient to conduct a pilot test. They were given a copy of questionnaires to respond and encouraged to write down the issues that they would like to clarify.

Following the results of pilot test, the initial set of questionnaire was refined and modified to meet the relevance of the operationalized constructs. Analysis on the pilot study showed an overall internal consistency of the scale at $\beta = 0.835$.

3.2 The Sample

The study was conducted among government employees at Civil Status and Passport Department in Jordan. There are 36 branches of Civil Status and Passport Department all over Jordan with a total of 1006 employees. Krejcie and Morgan's table suggested that the targeted sample size is 278. Sample Size Formula for Finite Population: If the target population is finite, the following formula (Krejcie & Morgan, 1970) may be used to determine the sample size.

$$S = \frac{X^2 NP\,(1-P)}{d^2\,(N-1) + X^2 P\,(1-P)}$$

Where:

S   =   Required Sample size

X   =   Z value (e.g. 1.96 for 95% confidence level)

N   =   Population Size

P   =   Population proportion (expressed as decimal) (assumed to be   0.5   (50%)
d   =   Degree of accuracy (5%), expressed as a proportion (.05); It is margin of error.

Table for determining sample size for finite population

To simplify the process of determining the sample size for a finite population 24), came up with a table using sample size formula for finite population. Appendix (1)

For the pilot study, the sampling frame is used among the front-line employees from Civil Status and Passport Department in Jordan. They have the same working environment as the actual sample for this study.

3.3 Descriptive Statistics Results

Demographic & Professional Characteristics

Table3.1: Civil Affairs employees Demographic & Professional Characteristics. N=314

	Frequency	Percentage
Sex		
Female	146	46.5
Male	168	53.5
Age group-collapsed		
25-30 Years	59	18.8
31-35 Years	79	25.2
36-40 Years	83	26.4
>40 Years	93	29.6
Educational Level-collapsed		
Diploma or less	137	43.6
University Degree	149	47.5
Master Degree or Higher	28	8.9
Working Experience		
1-<2 years	24	7.6
2-<5 Years	58	18.5
5-<10 Years	57	18.2
>= 10 Years	175	55.7

The demographic and professional characteristics of the respondent employees are shown in the table 3.1. There was a total of (314) employees at the Department of civil affairs of Jordan who completed the survey without any missing and odd responses, the majority of them, 53.5%, are male employees and the rest of them, 46.5%, are females. The age of the employees was distributed as follows: 18.8% of them were aged between (25-30 years), another 25.2% of them were aged between (31-35 years), but another 26.4% of them were aged between (36-40 years) and the rest of them, 29.6%, were aged above forty years. Furthermore, the educational level of those employees was distributed as follows: most of the employees had   Diploma or less educational levels, 43.6%, and most of them, 47.5%, had a university degree but few of them, 8.9%, had a Master's degree or higher educational levels. The yielded analysis of the years of experience of the respondents suggested that 7.6% of them had between One to less than two years of experience, another 18.5% of them had between (2 to less than 5) years of experience, but another 18.2% of them had between (five - less than ten) years of experience and the remaining majority of them, i.e., 55.7% , had ten or more years of experience.

3.4 Assessing validity and reliability

Reliability of the Measurement Scales- Internal Consistency Test

Table1.2: The Reliability Analysis of the measurement scales employed by the study. N=314.

Measurement Scale	Number of items	Cronbach's Alpha	Non-Reliability= 1-alpha	Interpretation
System usability Scale (SUS)	10	0.83	100 X (1-.83) = 17%	Good Reliability
Job Performance (JP)	10	0.89	100 X (1-.0.89) = 11%	Very Good Reliability

The Cronbach's Alpha test of internal consistency was used to assess the reliability of the Civil Status and Passport Department (CSPD henceforth) employees measured indicators of the System Usability Scale and the Job Performance Scale. The Cronbach's Alpha indicates a good reliability of the measurement scale if the yielded internal consistency of the scale items is above 0.7, which corresponds to (70%) reliability and (30%) of unreliability in the employed measurement systems (Nunnally ,1978, p. 245).   The resulted analyses of the two inventories are shown in the table 3.2. The Cronbach's alpha test showed that the 10-item system usability scale measured with (1-5) Likert Like scale was reliable, Alpha=0.83, which indicates that the ten items measuring employees perceived system usability and learnability were understood equally by the respondents. Also, the reliability analysis suggested that the employees perceptions of their own Job Performance was measured reliably, Cronbach's Alpha= 0.89. The levels of un-reliability were measured by subtracting the reliability from the a total of One (100%) reliability yielding small amounts of Non-reliable measurements (unexplained shared variance/ error) within the two scales shown in the table-A, the rest of the measurement in both scales characterizes the shared variance between the items when squared , for example the system usability (SUS) ten items share (0.83 X 0.83) X 100 = 68% of variance in common

between these ten indicators all to gather , the same principle applies to the Job Performance (JP) ten items.

3.5. Inter-item correlations matrix

Table-3.3: Pearson's correlation between the System usability Indicators.
N=314

	Item1	Item2	Item3	Item4	Item5	Item6	Item7	Item8	Item9
Item2I found the system unnecessarily complex	.595**								
Item3 I thought the system was easy to use	.531**	.621**							
item4 "I think that I would need the support of a technical person to be able to use this	.318**	.242**	.294**						
Item5 I found the various functions in this system were well integrated	.493**	.548**	.542**	.367**					
Item6 I thought there was	.179**	.082	.157**	.337**	.154**				

too much inconsistency in this system								
item7 I would imagine that most people would learn to use this system very quickly	.406 **	.445 **	.411 **	.351 **	.461 **	.071		
Item8 I found the system very cumbersome to use	.225 **	.068	.096	.428 **	.271 **	.567 **	.039	
Item9 I felt very confident using the system	.486 **	.602 **	.578 **	.244 **	.604 **	.167 **	.448 **	.104
Item10 I needed to learn a lot of things before I could get going with this system	.356 **	.237 **	.235 **	.496 **	.372 **	.325 **	.182 **	.516 **	.296 **

. Correlation is significant at the 0.01 level (2-tailed).. Correlation is significant at the 0.01 level (2-tailed)

Table-3.4: Pearson's correlation between the civil affairs employees perceived indicators of Job Performance. N=314   Appendix9

	Item#1	Item#2	Item#3	Item#4	Item#5	Item#6	Item#7	Item#8	Item#9
Item2 am accomplishing mistake-free services.	.318**								
Item#3I am providing fast responses for the costumers' inquiries.	.535**	.336**							
Item4 I am Providing services with 4 effectiveness.	.495**	.299**	.435**						
Item#5 I am seeking to provide perfect services.	.546**	.304**	.535**	.452**					
Item#6 I am accomplishing the services based on specific time table.	.464**	.341**	.423**	.497**	.495**				
Item#7 I am abiding .with the department systems and policies	.462**	.300**	.415**	.502**	.542**	.434**			
Item#8I am respecting the job ethics.	.477**	.329**	.521**	.413**	.610**	.447**	.526**		
Item#9 I am fol1ing the work schedule.	.359**	.221**	.379**	.388**	.492**	.410**	.641**	.465**	
Item#10 I am having the enthusiasm and willingness to achieve the services.	.451**	.275**	.491**	.422**	.581**	.509**	.511**	.585**	.562**

**. Correlation is significant at the 0.01 level (2-tailed). **. Correlation is significant at the 0.01 level (2-ta

3.6. Confirmatory Factor Analysis (CFA)

3.6.1 Confirmatory Factor Analysis CFA of the System Usability Scale
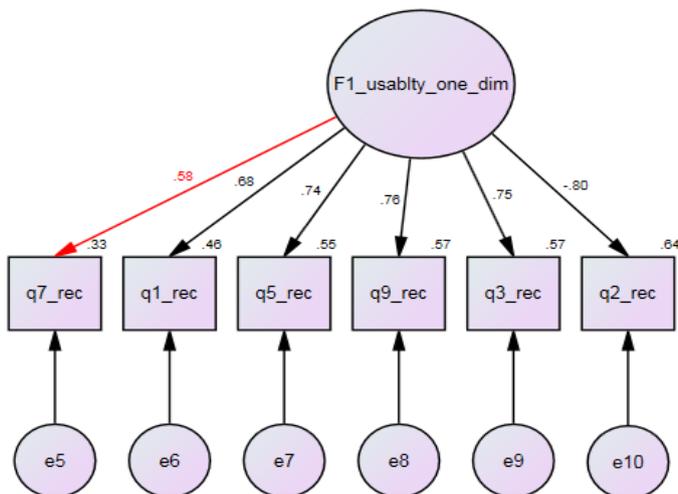

Figure 3.1: Confirmatory Factor Analysis CFA of the System Usability Scale

The Structural Equation Modeling SPSS AMOS Program was used to assess the Factorial, convergent and Discriminant Validity of the System Usability ten items by admitting their covariance matrix as a unit-of-analysis to the analytical program. Initially, researcher added ten indicators in a reflective model like that in the figure 3.1.

Table-3.5: The Goodness of Fit Indexes of model fit to the System Usability Confirmatory Factor Analysis in the image below

Fit Index	Value	expected range	Interpretation	References
χ^2 test of Goodness -Of-Fit	$\chi^2(9)$ =Chi-square = 14.62, p=0.102	Non-significant	Non-Significant, but this is expected due to high sample size	Hair, et al, Hooper D
Exact χ^2 G.O.F test = χ^2/df	1.624, p=0.102	between 1-3, good if <5	Signals minor departure from fit due to high sample size	Hair, et al, Hooper D, Barbar Byrne
CFI	0.993	above 0.94	Good Fit	Hair, et al, Hooper D
TLI	0.988	above 0.94	Good Fit	Hair, et al, Hooper D, Barbar Byrne
RMSEA	0.045, 90% C.I (0.000: 0.085), pclose=0.534	below 0.08	Good Fit	Hair, et al, Hooper D, Keany David

The initial analysis showed lack of fit between the ten-item covariance matrix and the data , $\chi^2(35)$=347.63, p<0.001, the exact chi-squared test CMIN/DF=9.93, p<0.001, CFI= 0.74, TLI=0.668 , RMSEA=0.169 , 90% CI RMSEA =(0.153 :0.185) , all those signaled that the covariance matrix (correlations) between the system usability did not

fit that we measured in the data, however by evaluating the standardized residual (error) of those co-variances   between the measured items we found that item4 had several standardized errors above the threshold of (3) denoting that this item is not explained accurately well by the proposed single latent factor , as such we removed it from the model especially it had great error covariance with items (6, 8 and10), then we repeated the solution, the model fit was re-valuated showing that the model fit was not optimal due to another high residual error in item 6 which had significantly error covariance with item3 , and the program showed that item 6 had significantly low factor loading with the latent system usability score (Standardized Regression= 0.233), which is relatively lower salient loading (convergence) than 0.5 as a minimum required factor loading , this   suggested that this item with item8 were not explained pretty well by the proposed model, as such we removed it from the model and repeated the solution, the model fit showed significant improvement in the goodness-of-fit as evident with a significant difference in Chi-squared test and degrees of freedom, Delta $\chi 2$ =119.79 , Delta DF=7 , p<0.001 Indicating that there was an Improvement in the overall fit of the model by removing the items4 and item6 , however the global and specific other goodness of fit suggested a lack of statistical fit between the proposed and observed model of covariance, RMSE =0.137, as such we re-evaluated the modification indexes suggested by the analytical program this time which showed that item8 had a significantly low factor loading to the latent factor (Standardized Regression Loading=0.182) indicating its low convergent validity , which is far below the threshold of (0.5) , as such we removed it and repeated the model, the repeated model global goodness of fit indexes showed remarkable improvement, RMSEA=0.07, 9, CFI =0.97, TLI=0.961, but the exact and global $\chi 2$-test of G.O.F showed

significant misfit between the reduced model covariance and the reproduced covariances, $\chi 2(14)=35.97$, p=0.001 also the item10 had a factor loading below 0.5 threshold, (Standardized regression weight=0.38, SMC= 0.144) , this was an convincing reason for removing the item10 as such we determined to remove the item10 and see what happens. After repeating the CFA solution without item10 the model fit showed a significant fit between the measured and reproduced (proposed) models, $\chi 2(9)=14.62$, p=0.102, as shown in table 3.5 , the exact chi-squared CMIN/DF= 1.624, p=0.102, which is below 3, indicating good fit, and the CFI was equal =0.993 and the Tucker-Lewis TLI measure of goodness of fit was equal to 0.988, both showing greater Goodness of fit between the model as well the Root Mean Squared Error Index suggested that the proposed and reproduced models had a great fit, RMSE =0.045, 90% C.I: <0.001 : 0.085, pclose=0.534.

3.7 Structural equation modeling Path analysis (Moderation) of age on the association

Between employees' system usability and Job Performance.

Deependent Variable	effect	Predictors	Standardized Regression estimate	p-value
Job Performance	<--	Z_Age	0.048	0.261
Job Performance	<--	Z_Usability score (SUS)	0.629	<0.001
Job Performance	<--	Z_Age_X_SUS_Z	-0.092	0.034

TABLE 3.6: Standardized Regression Weights for the moderation test between employees age, system usability on Job performance

Goodness-Of-Fit Indexes: fit,$\chi 2(1)=0.965$, p=0.0326, CMIN/DF=3.16 , CFI=0.99, TLI=0.99, RMSEA =0.001, 90% CI RMSEA(0.000 :0.140), PCLOSE=0.492
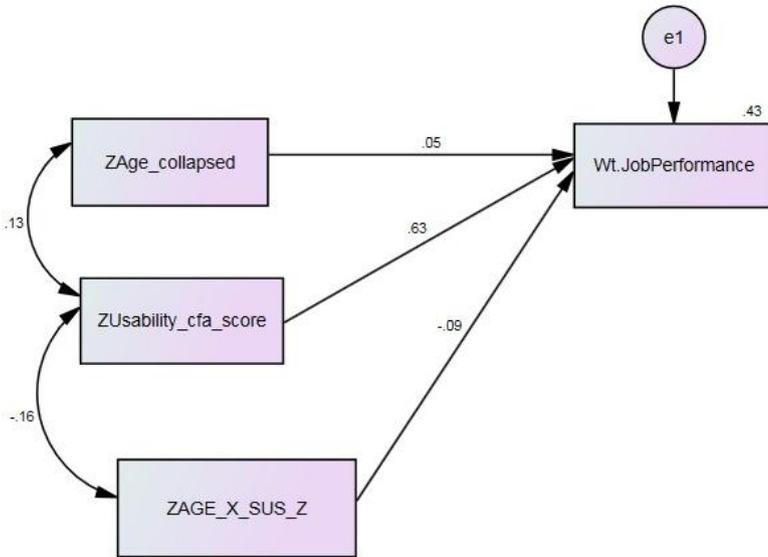

Figure 3.2: Path Analysis Model standardized regression weights

A Moderation test between employees' age and their system usability on their perceived Job performance was tested assuming that the age will moderate the association between the employees' system usability with their perceived Job performance. The age is presumed to be the moderating variable since it proceeds the system use temporally; as such we standardized the two variables (age and system usability) by computing a Z-score for each (Yuspin & Absori, 2019).

The Z-scores are standardized scores with a (mean = 0, SD=1) then created an Interaction product between the standardized age and system usability Z-scores by multiplying them yielding a product interaction term we labeled in the table 3.6 as (Z Age X_SUS_Z) (Feresin & Močinić, 2017; Shukla, 2017).

The path analysis model figure 3.3 illustrates the specification of the model with standardized regression weights shown between the independent variables and their dependent outcome variable (Job Performance).

The model initially did not fit the data requesting us to add a correlation between the Z-system usability score and the interaction term, which we added and converged the model again, the overall model fit suggested partial fit, as evident with a significant chi-squared good-of-fit test and an RMSEA =0.083, we evaluated the modification indexes again and the model required us to add a correlation between the Z age and Z usability, indicating that some association between the two scores, as such we added the correlation and re-run the model, the overall model-fit was great, as evident with an Goodness-Of-Fit Indexes: fit,$\chi^2(1)$=0.965, p=0.0.326, CMIN/DF=3.16 , CFI=0.99, TLI=0.99, RMSEA =0.001, 90% CI RMSEA(0.000 :0.140), PCLOSE=0.492, indicating the fit between the model to the data and the reproduced matrix. The standardized regression coefficients of the model are shown in table 3.6 above (Silaparasetti et al., 2017).

4. DISCUSSION

4.1 The Age Moderates the relationship between e-government services applications and job performance.

The main conceptual framework in this study predicted that employee age does moderate the association between e-government services and job performance. In this analysis, three types of variables are involved namely independent variable (e-government-services), moderator variable (age) and dependent variable (job performance). The implementation on moderation analysis also suggests two different effects (direct and joint effect) at three different levels (Baron & Kenny 1986). Precisely, in this study, the first level is represented by the relationship between e-government and job performance, the second level is the relationship between age and job performance and the final level is between interaction (e-government services*age) and job performance (Ali et al., 2017).

The result of this study achieved from path diagram with estimated path coefficients indicates a mixed (positive and negative) direction of relationships between variables with the coefficient values of $\beta = 0.048$, $\beta = 0.63$ and $\beta = -0.092$. Based on moderation model as reported by Fairchild & McQuillin (2010), this study suggests interaction between e-government services and age, which in turn predicts job performance as the outcome.

It employed a single moderation effect where age had partially moderated the effect between e-government services and job performance,

hence fully supporting the final hypothesis. It can thus be said that age is a negative significant determinant of both e-government and job performance relationships (Ismail et al., 2018; Liang, 2018; Lin & Chen, 2018).

Results on effect between variables involved; suggest that connection between e-government services and job performance have a direct effect on relationship. The finding suggests the positive relationships reported in this study that suggest two different perspectives that usability of implementation of e-government services is high and job performance is high; while usability of e-government services is low and job performance is low. This is in line with the observation by Darwazeh, et al. (2016). Further, it is supported by Alsalloum, (2011) which stated that e-government services usability is a significant factor of job performance. finding suggests that the use of e-government helps to achieve the greatest number of tasks during working hours as well as lead to the speed in the completing the work and helps reduce errors associated with the human factor.

Finally, the results also suggest a joint effect interaction (e-government services*age) and job performance relationships. The findings suggest significant moderation effect between employees' age and usability on their multivariate association with employees Job performance accounting for the correlation between age, job performance and their interaction in the model. In addition, findings indicate that the effect of the system usability on the employees Job performance may differ significantly across the levels of employees' age, and that specific age

groups may have slightly lower (muffled) effect of system usability on their job performance depending on their age.

5. CONCLUSION

This study has drawn and outlines the following conclusions:

1. It has examined the moderation effect of age on the relationship between e-government services and Job performance grounded by the theoretical framework in the literature.

2. The study employed data from 335 samples of frontline employee in civil status and passport department in Jordan.

3. Moderation analysis with has been employed through SEM approach using AMOS 22.0. Through moderation analysis, the study shows a well-fitted model and suggested joint direct effects of involved variables.

4. The study tested the following hypotheses and the results vary considerably.

H1: The e-government services application has significant effects on job performance (Tayebiniya & Khorasgani, 2018).

The hypothesis is supported with quite a high and significant coefficient estimates. It shows a positive direction of relationship which

means that high implementation on e-government services contributes to high job performance. It has been supported by previous studies (Kareem, 2013, Darwazeh, et al. 2016 ,Mashaqbeh, 2011 by Alsalloum, 2011, in e-government services context.

H2: The age level has significant effects on job performance.

The tested hypothesis is not supported. The age of the employees was not statistically significantly associated with their Job performance. The finding suggests supporting the previous research by Almashaqbh, 2012.

H3: The age moderates the relationship between e-government services applications and job performance.

This hypothesis was tested through Structural equation modeling Path analysis (Moderation). As suggested by Kenny, (2010), the estimated path coefficients in this study indicated a joint direction of relationships between two pairs of variables. There is a direct effect between e-government services and job performance relationship. Whereas, age does give joint direct effect involve in both relationships with e-government services and job performance. Consequently, the hypothesis is supported.

5. With the gap identified in this study, this research simply contributes to expend the body of existing literature.

REFERENCES

ALI, Y., AL-NUSAIR, M., ALANI, F., KHAN, F., & AL-BADI, L. 2017. **Employment in the private sector in oman: sector-based approach for localization**. Humanities & Social Sciences Reviews. Vol. 5, N° 1: 01-20. https://doi.org/10.18510/hssr.2017.511. India.

Al-Jamal, N. Q., & Abu-Shanab, E. A. ,2015, **E-Government adoption in Jordan: The influence of age.** In ICIT 2015 the 7th International Conference on Information Technology (pp. 345-350).

Almashaqbah, 2012, **The impact of e-government on job performance in civil status and passport department in Jordan.** Master thesis al Albayt University. Unpublished thesis.

Alsalloum, O. I. , 2011, **The impact of applying e-government to improve the performance of the ministry of education in Saudi Arabia**. Asian transactions on basic and applied sciences (ATBASS ISSN: 222-4291) volume 01 Issue 05.

Baron, R. M. & Kenny, D. A. ,1986, **The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations**. Journal of Personality and Social Psychology, Vol.15, No.6, pp. 1173- .

Bates, R. & Khasawneh, S. , 2005, **Organizational learning culture, learning transfer climate and perceived innovation in Jordanian organizations.** International Journal of Training and Development, Vo.9,No.2, 96-109.

Behn, R. D. , 2001,. **Rethinking democratic accountability**. Brookings Institution Press.

Brislin, R. W. , 1970, **Back-translation for cross-cultural research**. Journal of Cross-cultural Psychology, Vol.3, No.185,pp.216. 158.

Brislin, R. W. , 1986, **The wording and translation of research instruments.** Sage Publications Inc.

Brooke, J. , 1986, **System usability scale (SUS): a quick-and-dirty method of system evaluation user information.** Reading, UK: Digital Equipment Co Ltd, 43.

Campbell, J. P., McHenry, J. J., & Wise, L. L.,1990, **Modeling job performance in a population of jobs**. Personnel Psychology, Vol.43. No.2, pp. 313-575.

Cohen, A., 1993, **Work commitment in relation to withdrawal intentions and unions effectiveness.** Journal of Business Research, Vol.26, No.2,pp. 75-90.

Creswell, J. W., 2013, **Research design: Qualitative, quantitative, and mixed methods approaches:** Sage publications.

Darwazeh, S., Khrisat, D., and Al Dajah, S. , 2016,. **Effect of Application of E-Government on the Staff Performance in the Greater Amman Municipality A Field Study.** Research in Business and Management, Vol.3, No.2, pp. 19-40.

De Vries, J. ,2010, **Is New Public Management Really Dead?.** OECD Journal on Budgeting,   Vol.10,No.1, pp. 87.

Fairchild A. J. & McQuillin S. D.,2010**, Evaluating mediation and moderation effects in School Psychology: A presentation of methods and review of current pratice**. Journal of School Psychology, Vol.48, pp.53-84.

FERESIN, C., & MOČINIĆ, S. 2017. **Do we need to train teachers and students to care about other living beings?** Humanities & Social Sciences Reviews. Vol. 5, N° 1: 33-45. https://doi.org/10.18510/hssr.2017.513. India.

Gould-Williams, J., 2003,. **The importance of HR practices and workplace trust in achieving superior performance: A study of public-sector organizations.** International Journal of Human Resource Management, Vol.14,No.1, pp. 28-54.

Hoonakker, P., Carayon, P. & Schoepke, J., 2005, **Development of a questionnaire to evaluate turnover and retention in the IT workforce: Art or science.** Centre for Quality and Productivity Improvement, Department of Industrial and Systems Engineering, University of Wisconsin-Madison, WI, USA, pp.1-6.

Ismail, I., Sabran, R., & Ariffin, Y. 2018. **Conceptualising communication media and farmer's reaction in problem solving**. Humanities & Social Sciences Reviews. Vol. 6, N° 1: 01-07. https://doi.org/10.18510/hssr.2018.611. India.

Kemeny, N., Conti, J. A., Sigurdson, E., Cohen, A., Seiter, K., Lincer, R., and Budd, A. 1993. **A pilot study of hepatic artery floxuridine combined with systemic 5-fluorouracil and leucovorin. A potential adjuvant program after resection of colorectal hepatic metastases.** Cancer, Vol.71,No.6,pp.1964-1971.

Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., De Vet, H. C. W., & Van der Beek, A. J. , 2013,. **Measuring individual work performance: Identifying and selecting indicators.** Work: Journal of Prevention. Assessment & Rehabilitation, Vol.4,No.3.

Krejcie, R. V., and Morgan, D. W. ,1970,. **Determining sample size for research activities.** Educational and psychological measurement, Vol.3,No.3, pp. 607-610.

LIANG, S. 2018. **A comparison of American-born Chinese and Taiwanese college students in approaches to studying**. Humanities & Social Sciences Reviews. Vol. 6, N° 2: 01-09. https://doi.org/10.18510/hssr.2018.621. India.

LIN, C., & CHEN, S. 2018. **The influence of product presentation mode and academic major on the motivation of haptic**. Humanities & Social Sciences Reviews. Vol. 6, N° 2: 21-26. https://doi.org/10.18510/hssr.2018.623. India.

Martin, K. ,1989, "**Dual-Objective Performance Measurement, Human Resources Profesional,** May/June 1989.

Morris, M. G., Venkatesh, V., and Ackerman, P. L.,2000, **Gender and age differences in employee decisions about new technology: An extension to the theory of planned behaviour.** IEEE transactions on engineering management, Vol.52,No.1 pp., 69-84.

SHUKLA, S. 2017. **Innovation and economic growth: a case of india**. Humanities & Social Sciences Reviews. Vol. 5, N° 2: 64-70. https://doi.org/10.18510/hssr.2017.521. India.

SILAPARASETTI, V., SRINIVASARAO, G., & KHAN, F. 2017. **Structural equation modeling analysis using smart pls to assess the occupational health and safety (ohs) factors on workers'behavior**. Humanities & Social Sciences Reviews. Vol. 5, N° 2: 88-97. https://doi.org/10.18510/hssr.2017.524. India.

Tayebiniya, N., & Khorasgani, N. 2018. **The relationship between workplace spirituality and job performance among staff of azad Islamic university, Iran**. Humanities & Social Sciences Reviews. Vol. 6, N° 1: 14-18. https://doi.org/10.18510/hssr.2018.613. India.

YUSPIN, W., & ABSORI, N. 2019. **The establishment of participatory regional regulations based on local wisdom.** Humanities & Social Sciences Reviews. Vol. 7, N° 3: 92-96. India.

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