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Evaluation of Technology ImplementationImpact on Job Satisfaction

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ABSTRACT

The present research tries to investigate technology impact on job satisfaction and recognition of organizational justice and technology understanding and individual differences (work conscience and adaptation). The research methodology is of correlation-descriptive type and is applied from objective type, the statistical population contains all Kuhdasht city municipality and its subsidiary units employees (92 people). According to Morgan table, 74 people were selected as sample size. Field data gathering was conducted by questionnaire and data analysis was based upon Likert 5-point scale from completely agree to completely disagree. Reliability was tested by CHronbach's alpha to be 85 % for 45 questions. Regression was used to test the hypothesis in SPSS18. Results showed that organizational justice had positive impact on job satisfaction. Technology self-effectivityaffects job satisfaction along with perception of technology. Organizational justice along with technology self-effectivity does not affect perception of technology and also work conscience and adaptation does not affect perception of technology and job satisfaction.

KEYWORDS: organizational justice, technology, job satisfaction, technology self-effectively, technology perception, equity theory

INTRODUCTION

As IT spreads, organizations try to include technology in order to improve effectively and efficiency. Technology plays a vital role in supporting work processes in different sectors and industries. For example, in public sector, technology has made serving the citizens simpler (west, 2004).

Public service is accessible online and is recognized as e-government. Receiving tax and tolls forms are other kinds of e-service. In private sector, organizations use technologies like ERP system to re-structure tasks and simplify processes (Morris and Vankatsh, 2010). In this chapter, general points of the research are reviewed. After problem clarification and its importance and necessity review, goals, questions and hypotheses of the research are stated. Then, research domain , conceptual and operational definitions are investigated.

Theoretical framework of the research

Most of the changes in organizations are done to improve efficiency and affectivity (Kifer, 2005). One of the commonest activities is applying ERP and CASE (computer-aided software engineering) and these systems are used to restructure and reorganize (Jooshi, 1991 and Morris, 2010).

During past decades, many progresses have been formed in perceiving factors and applying technology (Bradley, Peridemoro and Bired, 2006).

Despite this, Karimo et al (2007), LarsenoMayers (1991) and Morris (2010), believe that technology implementation is a challenging work for any organization. Keladin and Sonra(1996) suggested that organizations might fail in applying technology. The main obstacle ahead of applying technology successfully is users resistance against the changes (Jiang, Mohana and Clein, 2007, Jooshi, 1991, KanHali, 2009). As Pidrit (2000) pointed out , a successful organization depends on employees support and encouraging them to face changes (applying technology) and not making them set aside resistance against changes. Therefore, technology implementation success depends on organizations ability to produce favorable perception on new technology among employees. Many researchers refer to organization important role in improving employeesacception of new technology (Ein-dour, 1978, Lavoungai, 2007, Leonard Bartonodismeps, 1988, Sharma and Yitoon, 2003, Morris and Davis, 2003). Uncertainty management in new technology introduction is very important because employees may not be able to predict and understand new technology (Dooni and Selukom, 1975; Milikon, 1987; Song and Montaya, 2001).

Uncertainty is an obstacle ahead of organization's recognition and perception of technology (Rindwa and Pitkura, 2007). Therefore, organizations must help employees with learning about technology advantages. Despite this, although employees have favourable perceptions of organizational changes, such positive perceptions are due to positive work attitudes (WenberGoubens, 2000), and this problem might not be in technology. Although past

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researches show good understanding of technology, its utilization (Vankatsh et al, 2003) does not yield to such a perception and the question is that will technology yield to job satisfaction (Brown, Vankatsh, Krozovich and Messi, 2008). Some researchs have reported that technology reduces employees life quality and some of the researches have shown that official automation enriched job and increased life quality (Millman and Hertweek, 1987). Considering different findings, more research is necessary to investigate technology impact on employees job satisfaction. This question is raised that how organizations can help employees to manage uncertainty in applying technology and finally increasing job satisfaction?

The following researches have been conducted on the topic some of which are reviewed in the next part.

Hamid RaminMehr and ImanHaddadi and AkramHadizadehMoghaddam in a research titled "investigation of relationship between organizational justice perception and citizenship behavior in national petroleum products distribution company staff concluded that the relationship between perception of justice and organizational citizenship behavior is significant. From justice dimensions, communication justice has a stronger correlation with respect to other two dimensions and organizational justice other 3 dimensions have correlation with eachother.

A research titled: "relationship between organizational atmosphere and work concince with job performance" was conducted by HajarBaratiAhmadabadi and HamidrezaArizi and AbolghasemNouri in Isfahan Zobahancompany showed that work conscience affects people job performance. Positive organizational atmosphere can increase this impact.

A research titled "impact and role of effective factors on work conscience" was conducted by Mohammad JavadLiaghatdar and HassanaliBakhtiarNasrabadi, FatemehSamiee and BibivajihehHashemi among public universities students of Isfahan including sharif university of technology, medical sciences university and Isfahan university showed that socio-cultural factors in the first step and personal-individual factors and domestic factors affect work conscience respectively. Furthermore, only gender was effective on work experience significantly among all demographic factors.

In a research titled "investigation of relationship between traits and occupational performance of policemen" and its researcher was DavoudKarimi from among 5 factors (work conscience, being extrovert, excitement stability, agreement, adaptation), work conscience had the most relationship with occupational performance. Being extrovert and excitement stability also affected better occupational performance but past researches showed that the two factors agreement and adaptation did not have any relationship with occupational performance. There are other factors that might affect policemen occupational performance including excitement control, excitement tool, group integration, independence and realistic attitude.

Research hypotheses

First hypothesis: organizational justice has a direct impact on employees' perception of technology

Second hypothesis: organizational justice with adaptation affects technology effectivity.

Third hypothesis: work conscience with employees' perception of technology affects job satisfaction.

Fourth hypothesis: organizational justice with technology self-effectively affects employees' perception of technology.

Fifth hypothesis: self-effectively with employees perception of technology affects job satisfaction.

RESEARCH METHODOLOGY

The present research methodology is of descriptive-correlation type and is a applied research. Statistical population of the research includes all employees of Kuhdasht municipality and its subsidiary units (89 people).sample size was 74 according to Morgan Table. Data gathering was done by questionnaire in field method regression test was used to analyze hypotheses.

RESEARCH FINDINGS

First hypotheses: organizational justice has a direct impact on employees' perception of technology .

Table 1.Regression test summary.

Sig. level	f	Standard determination coeff.	determinationcoeff.	Correl. coefficient
.000	23.811	.238	.249	.499

As it can be seen on table 1, correlation coefficient is 0.0499 and determination coefficient by independent variable is 23% , on the other hand, f-test significance level was less than 1%, therefore linear relationship between two variables is verified.

Table 2.Regression coefficient

model		Non-standard coefficients		Standard coefficients	t	
1						
Dep. variable	Indep. variable	B	معیار error	Beta		
Employees perception of technology	Constant value	2.284	.232		9.827	.000
	Organizational justice	.352	.072	.499	4.880	.000

As it can be seen, significance level is a constant value less than 1%, therefore constant value affects dependent variable. Also t-test significance level is less than 1% for organizational justice and can participate in the equation. In other words, it affects dependent variable.

$Y=a+(b_1x_1)$

Employees perception of technology =2.28 + 0.352(organizational justice)

According to table above, one unit change in organizational justice changes employees perception of technology as much as 0.352. therefore organizational justice has a direct impact on employees' perception of technology.

Second hypothesis: organizational justice with adaptation affects technology effectivity.

Table 3, regression model summary

Sig. level	f	Standard determination coeff.	determinationcoeff.	Correl. coefficient
.064	2.852	.048	.074	**.273**

As it can be seen in table 3, correlation is 0.273 and determination coefficient is 4 percent. On the other hand, significance level of f is more than one percent. Therefore no linear relationship is verified between two variables.

Table 4.regression coefficient

model		Non-standard coefficients		Standard coefficients	t	Sig. level
1						
Dep. variable	Indep. variable	B	معیار error	Beta		
Adaptation	Constant value	2.741	.329		8.334	.000
	Org. justice	-.037	.050	-.089	-.747	.457
	Technology effectivity	.194	.081	.285	2.388	.020

Considering the lack of relationship between independent variable and dependent variables, organizational justice with intervention of technology affectivity does not affect adaptation, therefore the hypothesis is not verified and organizational justice does not affect adaptation with technology effectivityintervention.

Third hypothesis: work conscience with employees' perception of technology affects job satisfaction.

Table 5.regression model summary

Sig. level	f	Standard determination coeff.	determinationcoeff.	Correl. coefficient
.006	5.441	.108	.133	.365

Correlation coefficient is 0.365 and determination coefficient is 10%, on the other hand f-test significance level is less than 1 percent, therefore linear relationship between two variables is verified.

Table 6.regression coefficient

model		Non-standard coefficients		Standard coefficients	t	Sig. level
1						
Dep. variable	Indep. variable	B	error معیار	Beta		
Employees perception of technology	Constant value	1.639	.751		2.183	.032
	Work conscience	.192	.246	.110	.781	.437
	Job satisfaction	.252	.125	.285	2.017	.048

It is observed that significance level of the test is less than 1%, therefore the constant value affects dependent variable. Also significance level of t-test is less than 1%, therefore the constant value affects dependent variable. Also significance level for t-test is less than 1% for satisfaction. Therefore it can be included in the equation but t-test significance level is more than 5% for work conscience and work conscience does not affect employees perception of technology.

$Y=a+(b_1x_1)$

Employees perception of technology=1.63+0.252 (job satisfaction)

It is observed that one unit change in job satisfaction variable changes employees perception of technology changesbut work conscience does not have any impact on employees' perception of technology. Consequently, work conscience does not affect employees perception of technology with job satisfaction intervention.

Fourth hypothesis: organizational justice affects employees' perception of technology with the intervention of technology self-effectivity.

Table 7.Regression model summary

Sig. level	f	Standard determination coeff.	determinationcoeff.	Correl. coefficient
.003	6.389	.129	.153	**.391**

As it can be seen, correlation is 0.391 and determination coefficient is 12 percent. On the other hand, f-test significance level, is less than 1 percent therefore linear relationship between two variables is verified.

Table 8.Regression coefficients

model		Non-standard coefficients		Standard coefficients	t	Sig. level
1						
Dep. variable	Indep. variable	B	error معیار	Beta		
Technology self-effectivity	Constant value	2.978	.332		8.957	.000
	Org. justice	.086	.078	.139	1.106	.273
	Employees perception of technology	.264	.110	.302	2.396	.019

In the above table it is observed that significance of the test is a constant value less than 1% therefore the constant value affects the dependent variable. Also t-test significance level for employees perception of technology is less than 1 % therefore it can participate n the equation but significance level for t-test for organizational justice is more than 5 %. Therefore organizational justice does not affect technology self-effectivity.

$Y=a+(b_1x_1)$

technology self-effectivity=2.97 +0.264(employees perception of technology)

according to above table, it is observed that with one unit change in employees perception of technology variable, technology self-effectivity will change 0.264 units but organizational justice does not affect technology self-effectivity. Consequently, organizational justice does not affect technology self-effectivity with the intervention of employees perception of technology.

Fifth hypothesis: self-effectivity with employees' perception of technology affects job satisfaction.

Table 9.Regression model summary

Sig. level	f	Standard determination coeff.	Determinationcoeff.	Correl. coefficient
.001	8.111	.163	.186	.431

As it can be seen on table 9, correlation coefficient is 0.431 and determination coefficient model by independent variable is 16%, on the other hand, significance level of f-test is less than 1%, therefore linear relationship between 2 variable s is verified.

Table 10.regression coefficients

model		Non-standard coefficients		Standard coefficients	t	Sig. level
1						
Dep. variable	Indep. variable	B	error	Beta		
Employees perception of technology	Constant value	1.251	.540		2.317	.023
	Tech. self-effectivity	.310	.135	.271	2.298	.025
	Job satisfaction	.213	.104	.241	2.047	.044

It is observed that significance level of test is a constant value less than 5 percent, therefore constant value affects dependent variable.also t-test significance level for self- effectivity of technology variable & job satisfaction is less than 5%, therefore these 2 variables can take part in the equation & affect employees' perception of technology.

$Y=a+(b_1x_1)$

Employees'perception of technology= 1.25 +0.310 (technology self- effectivity) + 0.213 (job satisfaction).

The table above shows that one unit change in technology self- effectivity changes employees' perception 0.310 units & one unit change in job satisfaction changes employees' perception of technology 0.213 units. Consequently, self- effectivity affects Employees' perception of technologywith job satisfaction intervention.

Conclusion & recommendations

The following recommendations can be made as a result of research findings:

The present research's findings can be helpful for managers who present tend their employees to have more job satisfaction in technology implementation (considering their percepyions). & it is recommended that due to organizational justice importance & effect on employees' perception of technology, managers had better pay more attention to organizational justice especially in procedure & distribution justice dimensions. Therefore supervisors will have better treatment towards employees & service compensation & wage &salary systems be standard. Because employees are the main capital of an organization, justice observation is a must in every organization.

It is recommended that organizations help employees recognize technology benefits &inspire them for using technology. Employees must know that technology will help them with doing their tasks in a better way & individuals with higher level of task-doing ability, are more probable to try harder to reach their goals.

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