Examination of the effects of some variables in internal control and organizational stress management via multiple regression on perception of risk and uncertainty

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Abstract
Internal control is an essential element of successful and effective management. Internal control which plays a role as a proactive and integral element in organizations' adapting to changing and changes also plays an important role in the realization of organizational strategy. In some cases, change brings risks along with uncertainties. One of the most effective tools against the stress occurring in cases where the risks and change cannot be managed is, without doubt, internal control practices. Risk management practices are dealt with within the scope of internal control. Risk management is directly related to perception of risks and uncertainties of the employees and the organization. The effect of some variables on the perception of risk and uncertainty has been investigated since the risks and uncertainties in the organizations are constantly in interaction with stress and internal control applications. The study was conducted face to face by asking 348 entrepreneurs operating on the textile industry to fill in the survey form in Kayseri in Turkey. The effects of total work experience, age, gender and strength on perception of risk and uncertainty have been determined.

Keywords: Internal control, organizational stress, perception of risk and uncertainty, meaningful work, flexibility.

1. Introduction

In today's business world, even small sized firms are responsible for transparency and accountability as well as big ones. Due to the evaluation of accounting systems all over the world, almost all companies worldwide started to control their activities by inner mechanisms. Internal control is playing a key role in companies' main strategic decisions moreover their missions and visions. Organizational stress is another factor examined in this study. It is clear that there are variously stress sources in individuals' lives and business area seems to be one of them. Perception of risk and uncertainty tend to be higher when control mechanisms are week and organizational stress is high. In this study, effects between these instruments are examined via multiple regression analysis.

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2. Literature Review

According to the Institute of Internal Control Auditors, internal control is defined as: An activity performed by the management in order to increase the likelihood of the realization of the objectives which have been planned before.

As Bilgi, Mihaylova and Papazov mentioned, internal control is a system which is related with the others in business that all of the staff is responsible for but still managers are seem to be the leaders in this system (Bilgi, Mihaylova and Papazov, 2017). Management is required to certify thet their internal controls are well designed and operating effectively (Dickins and Fay, 2017).

Internal control is broadly defined by The Committee of Sponsoring Organizations of the Treadway Commission (COSO) as a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of strategic goals relating to operations, reliability of financial reporting, designed to enable to trust in obtaining the objectives in compliance with laws, regulations and policies to be obeyed (Yilanci, 2003). The COSO internal control structure with its specific components (control environment, risk assessment, control activities, information and communication, monitoring activities) has come into existence as a multidimensional structure that ensures effectiveness

and efficiency of operating activities, it guarantees information reliability of financial reports offered by the company and does not conflict with existing legislation (Türedi and Karakaya, 2015). Internal control helps an institution reach its performance and profitability objectives as well as being protected against the risk of loss. For a sound and effective organizational structure, it is necessary that internal control is designed, and operated professionally (Akyel, 2010).

Risks arising from within and outside institutions may stem from the changes around the activities, new staff, renewal or replacement of the information system, rapid growth, new technologies, new products and activities, reconstruction of the institution, overseas operations, the adoption or changing of new accounting principles (Hall, 2004).

Organizational stress literature is growing by the time while it is critical for organizational performance (Rumbold, Fletcher and Daniels, 2018). Organizations face many different problems while managing processes, such as organizational stress (Özdemir Yaylacı, 2005). In organizational stress, the sources of stress and the state of tension in a business atmosphere (Maureen et al, 2001) as well as indicating characteristics of a job and harmful effects of work-related socio-psychological situations on individuals (Behr, 1998) . Due to the authors interested in European countries, work place has a meaningful effect on men's mental health (Bossmann, Ditzen and Schweitzer, 2016; Yankovskaya et al, 2017)). There is a similar situation in USA that organizational stress damages people physically (Cranwell-Ward and Abbey, 2005). Basic sources of organizational stress are rumors arising in situations of uncertainty in workplaces, conflicts, behaviors directed towards violence or discrimination (Bordia et al, 2006), ambiguity and/or role conflicts that are observed where there is a chaos of power and responsibility (Christine, 2003). The hot spots can be classified as; job demands, control at work, support at work, workplace relationships, role-based stress and changes to the job and the organization (Weinberg, Sutherland and Cooper, 2010).

Different from other positive psychological capital components, "sturdiness" having a more reactive nature is defined as positive adaptation of an individual to the circumstances under specific risks and adverse condition (Masten and Reed, 2002) to be robust for the problems and difficulties, and to be able to recuperate (Avey, Wernsing and Luthans, 2008). The workers with high flexibility do not have difficulty in adapting to the conditions of competitive, variable and uncertain work environment. (Akcay, 2012).

Although there is not a common idea what its nature and components are, meaningful work is a concept which is very attractive for researchers (Steger et al., 2012). It can be defined as the positive and important contribution of a work to individuals' meaningfulness of life besides individuals' having pleasure from their work (Rosso, Dekas and Wrzesniewski, 2010).

Meaningful work could be said to have three primary aspects: (1) Psychological Meaningfulness at work, how significant the work is for the employees (2) Making meaning via work: understanding the meaning of life linking with a meaningful work; (3) Greater good motivations: The need to make a positive impact on the greater good for especially others (Steger et al., 2012).

The concept of risk bears the probability of occurrence of various possibilities in connection with a threat. It is based on the distinction between reality and possibility in this respect. The validity of the concept disappears in the cases where possibilities disappear or get out of the individual initiatives. In other words, the risk is about how the individual or the society defines themselves in coping with the change and the future. (Furedi, 2001). The main players able to influence risk control in an organization are; the board or a similar leadership committee, risk control managers, internal audit managers, line managers, IT managers and everyone else in the organization (Leitch, 2008). The researches show that such factors as age, income and education level are active in "taking risks" besides the personal characteristics like the ability to predict the future and adventurism (Sung and Hanna, 1997).

3. Method

The research was conducted in order to find out how the employees in textile manufacturing sector got effected from such factors as flexible behaviors to perceptions of risk and uncertainty, gender, education level, age, total work experience and meaningful work through the method of relational survey. The universe of the survey is composed of the entrepreneurs in textile industry in Kayseri in Turkey. The sample of the survey consists of totally 348 people- chosen through convenience sampling method, 110 (31,6 %) of whom are women and 238 (68,4 %) of whom are men.

The survey form consists of the following means of measurement:

1. Demographic Data Form: Consist of questions related to age, gender, education level and total work experience.
2. Flexibility Scale: A 15-question scale, developed by Wagnild, GM Young, HM (1993). Cronbach Alpha reliability coefficient of the scale was calculated as 0,829.
3. Scale of Meaningful Work: A10-question scale adapted to Turkish by Ali, A., Hamedoğlu, M., Kumar, MP., And Pine, H. (2013). Cronbach Alpha reliability coefficient of the scale was calculated as 0,891.
4- Perception of Risk and Uncertainty Scale: Perception of risk and uncertainty scale developed by Bozkurt, Veysel and Baştürk (2009) is consisted of 6 questions. Cronbach Alpha reliability coefficient of the scale was calculated as 0,707.

For all scales, confirmatory factor analysis is performed by benefitting from Statistical Package of the Social Sciences (SPSS) and Analysis of Moment Structures (AMOS) 23.0 and the fit indices those were obtained from the analysis were shown in table 1.

Table 1: Fit indexes of scales

Fit Measure	Good Fit	Acceptable Fit	Flexibility	Meaningful Work	Perception of Risk and Uncertainty
$\chi 2/df$	$,0 \leq \chi 2/df \leq 2,0$	$2 \leq \chi 2/df \leq 3$	2,611	1,170	1,428
RMSEA	$,0 \leq RMSEA \leq ,05$	$,0 \leq RMSEA \leq ,08$	,068	,022	,035
NFI	$,95 \leq NFI \leq 1,00$	$,90 \leq NFI \leq ,95$	,987	,989	,966
RFI	$,90 < RFI \leq 1,00$	$,85 < RFI \leq ,90$	,968	,973	,927
IFI	$,95 \leq IFI \leq 1,00$	$,90 \leq IFI \leq ,95$	,992	,998	,990
TLI	$,95 \leq TLI \leq 1,00$	$,90 \leq TLI \leq ,95$	,980	,996	,977
CFI	$,97 \leq CFI \leq 1,00$	$,95 \leq CFI \leq ,97$	,992	,998	,989
HOELTER	>200		316	471	489

Root Mean Square Error of Approximation (RMESA), Normed Fit Index (NFI), Relative Fit Index (RFI), Incremental Fit Index (IFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), Holter's critical value (HOELTER) and p-value for H0 (PCLOSE) rates have been examined. NFI, is positively related with the number of Sampling. NFI, RFI, IFI, TLI and CFI rates between 0,00 and 1,00. If model rates between 0,05 and 0,08 RMESA, it can be regarded as an acceptable harmony. The limit values for coherence indexes are shown in Table 1. (Hair vd., 2010; Bayram, 2010: 75-76).

When the table-1 is examined above, it is seen that the analysis rates are of a relative agreement or acceptable limits.

4. Findings

Descriptive statistics related to demographic data of the employees participating in the study are shown in Table 2.

Table 2: Descriptive statistics on demographic data

age	Frequency	Percent	Experience	Frequency	Percent
18-30	133	38,2	1-5 years	163	46,8
31-40	154	44,3	6-10 years	98	28,2
41-50	57	16,4	11-15 years	38	10,9
51-60	4	1,1	16-20 years	32	9,2
Total	348	100,0	21 years and over	17	4,9
education	Frequency	Percent	Total	348	100,0
Secondary-high	51	14,7	Gender	Frequency	Percent
High school	18	5,2	Woman	110	31,6
Faculty	279	80,2	Man	238	68,4
Total	348	100,0	Total	348	100,0

It is clearly seen in the Table 2 that 31.6% of the respondents are women and 68.42 % of them are men; the percentage of those who are graduates of a faculty is 80,2 %, which is rather a high one; the average age is 40, which is also high, and less than 40 with the rate of 82,5% (=38,2%+44,3%); their work experience in current workplace is less than 10 years with the rate of 75% (=46,8%+28,2%)

Table 3: Model summary for multiple regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,406[a]	,165	,155	1,131	,165	16,922	4	343	**,000**
2	,454[b]	,206	,192	1,106	,041	8,876	2	341	**,000**

a. Predictors: (Constant), gender, education level, age, total work experience
b. Predictors: (Constant), gender, education level, age, total work experience, sturdiness / flexibility, meaningful work

When Table 3 is examined, it can be seen that sig F change value for model 1 and model 2 is 0,000; model 2 has lower R square change (0,041<0,165) and f change (8,876<16,922) values with regard to model 1; however, it has higher values than model 1in respect of R (0,454>0,406), R square (0,206>0,165) and adjusted R square (0,192>0,155).

Table 4: ANOVA* for multiple regression[a]

	Model	Sum of Squares	df	Mean Square	F	p
1	Regression	86,574	4	21,644		
	Residual	438,701	343	1,279	16,922	**,000**[b]
	Total	525,276	347			
2	Regression	108,282	6	18,047		
	Residual	416,994	341	1,223	14,758	**,000**[c]
	Total	525,276	347			

a. Dependent variable: Perception of Risk and Uncertainty
b. Predictors: (Constant), gender, education level, age, total work experience
c. Predictors: (Constant), gender, education level, age, total work experience, sturdiness / flexibility meaningful work

When the ANOVA analysis in Table 4 is examined, it is seen that models 1 and 2 have the same meaning level ($p = 0.000$); df value of model 2 is higher than that of model 1 (6> 4), yet its F value is lower than that of model 1 (14.758 <16.922).

Table 5: Coefficients for multiple regression[a]

	Model	Unstandardized Coefficients		Standardized Coefficients	t	p
		B	Std. Error	Beta		
1	(Constant)	2,928	,313		9,346	,000
	Total work experience	**,310**	,066	,297	4,692	**,000**
	Education level	-,004	,061	-,004	-,071	,943
	Age	**-,263**	,104	-,159	-2,533	**,012**
	Gender	**,939**	,131	,355	7,162	**,000**
2	(Constant)	1,593	,526		3,029	,003
	Total work experience	**,212**	,069	,203	3,086	**,002**
	Education level	-,033	,060	-,028	-,557	,578
	Age	**-,202**	,103	-,122	-1,965	**,049**
	Gender	**,922**	,128	,349	7,184	**,000**
	Sturdiness/Flexibility	,023	,083	,015	,273	,785
	Meaningful work	**,261**	,073	,212	3,571	**,000**

Dependent Variable: Perception of Risk and Uncertainty

It is seen, when Table 5 is examined, that total work experience, age, gender and meaningful work meet the condition of $p < 0,05$ in model 2 and these variables have the same effects as p values to perception of risk and uncertainty.

Table 6: Multiple regression to the excluded variables[a]

Model	Beta In	t	p	Partial Correlation	Collinearity Statistics Tolerance
1 Sturdiness/Flexibility	,111[b]	2,199	,029	,118	,943
Meaningful work	,219[b]	4,210	,000	,222	,856

a. Dependent Variable: Perception of Risk and Uncertainty
b. Predictors in the model: (Constant), gender, education level, age, total work experience

In Table 6 it is observed that flexibility and meaningful work meet the condition of $p < 0.05$. When the values in Table 6 are evaluated along with those in Table 4, it can be said that there is a relation of sturdiness and flexibility but its effect is likely to be coincidental as seen in model 2. The results of the analysis of the correlation carried out in order to research the detail of this relation is shown in Table 6.

Table 7: Correlations

		1	2	3	4	5	6	7
1-age	Pearson Correlation	1						
	p							
2-gender	Pearson Correlation	,029	1					
	p	,588						
3-education level	Pearson Correlation	,170**	-,005	1				
	p	,001	,930					
4-total work experience	Pearson Correlation	,614**	-,064	,193**	1			
	p	,000	,235	,000				
5-Perception of risk and uncertainty	Pearson Correlation	,033	**,332****	,025	**,176****	1		
	p	,544	*,000*	,644	*,001*			
6-Sturdiness/Flexibility	Pearson Correlation	,040	,003	-,010	**,206****	**,160****	1	
	p	,456	,960	,848	*,000*	*,003*		
7-Meaningful work	Pearson Correlation	**,114***	-,003	**,171****	**,340****	**,269****	**,505****	1
	p	*,034*	,960	*,001*	*,000*	*,000*	*,000*	

N = 348, * p <.05, ** p <.01

When the Table-7 is investigated it can be seen that there is a positive, bi-directional but weak correlation between flexibility and perception of risk and uncertainty at the level of 0.160 **.

5. Results and Discussion

In this research, the effect of work experience, age, gender, meaningful work and sturdiness/flexibility, which is among the subscales of psychological capital, on the perception of risk and uncertainty has been investigated. It was determined that age (p = 0.049), gender (p = 0.000) and work experience (p = 0.002) had influence on the perception of risk an1d uncertainty and the results obtained (Sung and Hanna, 1997) are consistent with the literature. However, the result of our research could not be compared with the literature because no research carried out on either the effects or the relation between the perception of risk and uncertainty and meaningful work (p = 0.000) and sturdiness/flexibility (p = 0.785 and p> 0.05) was not found.

Internal control consisting of control environment, risk assessment, control activities, information, communication and follow-up elements is not an objective but a means of administration that bears the aim of reaching an organization to its objectives. It doesn't identify the objectives but provides reasonable assurance in order to achieve the targets which have been set before. Because it is risk-based, it is directly related to organizational stress. It is possible for organizational stress to arise in all organizations, in which a healthy internal control system has not been established, before or during the stage the system is set. Direction, severity and emergence of the organizational stress may vary according to the risks and uncertainties in the processes. The elements out of the organization as well as the individual elements play a role in emergence of organizational stress.

While organizations establish internal control system, they must do it by keeping in mind that it is process that encompasses all activities and is based on the principle of steadiness; not limiting it only to certain points, to certain areas and to certain periods. Throughout the process, strategic steps should be determined by analyzing human source and institutional capacity rather than just planning and filling some standard forms systematically. Institutional competence and capacity should be planned simultaneously and strategic objectives must be realized.

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