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Lack of Change Information and End User Grumbling: Mediating Role of Fear of Unknown and Moderating Role of Emotional Regulation

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ABSTRACT

User resistance is a complex phenomenon and is considered a major constraint towards the successful implementation and usage of information technology. Hence, in order to investigate the factors that may leads to user resistance; the current study proposes and investigates the mediating role of fear of unknown between lack of change information and end-user grumbling, and moderating role of emotional regulation between the relationship. Emotional self-regulation theory has been used as an overarching theory that explains the research model proposed and tested in the study. Using Quantitative approach, survey was conducted and data was collected from 334 users of FBR systems. With the help of SPSS and MACRO PROCESS statistical test were conducted and links were tested. Results revealed that all hypothesis were accepted. Along with this discussions, research implications and recommendations are also provided.

Key words: End User Grumbling, Change Information, Fear of Unknown, Emotional Regulation, FBR system

1. INTRODUCTION

User resistance is a phenomenon that is related to the technological change occurring in an organization. It impacts the organization in different aspects and is critical to the success of any technological changes being brought into an organization (King, Bauer, Weng, Schriber, & Tarba, 2020). Continuous change in technology makes the organizational environment dynamic (Wang, 2020; Kesharwani, 2020) and for organizations to survive this rapid change of technology; they need to handle all kinds of resistance. However, change information is something that is needed as a prerequisite,

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when a change is being brought into an organization and therefore is considered useful (Wanberg, 2000). Change information is highly associated with phenomena like resistance, end-user grumbling, technology anxiety, turnover intention, and job burnout. Previously, change information with resistance to change/end-user grumbling has not been tested; hence literature and research on this term from the technological aspect remain scarce. Like Den, Freese, Schalk, and Asse, (2017) in the study suggested that change information is needed to be studied with the construct of change and see that how change information and change resistance are related to one another. In addition, end-user grumbling and resistance to change has been studied with different context but how does fear of unknown is developed because of lack of change information or some technological changes has not gained much attention; thus literature and knowledge on this relationship remain limited. Like: Fadzil and Hassan, (2017) suggests that there is a need of conducting a study that investigates fear of the unknown/uncertainty with the implementation of a new IT system in an organization and how this factor can affect the level of end-user grumbling (user resistance).

Organizations are facing many problems when it comes to the implementation of the technological changes; therefore strategies/policies should be developed in the presence of information technology; so that effective implementation and use of information is made possible (Butt, Nawab & Zahid, 2016; Fischer, Imgrund, Janiesch, & Winkelmann, 2020; Naeem, 2020) to fulfill the need of the time. Because of the dynamic nature of today's organization and the merge of different technologies in an organization there raises a problem of end-user grumbling. FBR in Pakistan has introduced a new online data system where a user has to input all of the required information (Koumpias, & Martinez-Vazquez, 2019). The problem faced is that people have not been using the online data system much since its implementation and because of that government is not getting the data that it needs to have.

According to a news report published in The NEWS a very small number of people have uploaded the data using the FBR system which shows that people are either unfamiliar with the system or they have lack of change information which has led to this low level of FBR system usage. A similar observation is illustrated in E-government

surveys done in 2014 and 2016 shows a rate of decline in terms of technology usage (from 158 to 159) in Pakistan. The reason behind this decline could be that users of FBR system are asked for data which they are not willing to share might be because of: getting public or data security concern, or any unknown fear. Hence based on this research problem, the current study investigates whether fear of unknown mediates the relationship between lack of change information and end-user grumbling and whether emotional regulation moderates the relationship.

2. LITERATURE REVIEW

A thorough review of the literature revealed that most of the studies conducted in the past have studied resistance to change from employees' perspective. This is because in the organization change and resistance are closely related; that may create any form of uncertainty (Ullah, 2012). In today's working environment, organizations plan for conducting a change, in order to survive or to thrive (Casalet, & Stezano, 2020). Long term changes that are brought into an organization requires time to understand the changes and then integrate these changes (Riesenmy, 2010). When a change is brought into an organization; change information is essential in order to have a constructive output; (Wanberg, 2000). Like: Tufail, Hassan, Ismail, and Zahra (2016) reported the importance of knowledge sharing for enhancing the capability of innovation brought in the organization (Hensen, & Dong, 2020). Hence to make technology successful the user/employee needs to have complete change information, and in case of failure, it may lead to negative consequences.

2.1. Fear of the unknown/uncertainty

Fear of uncertainty is a mental state. Fears are developed when certain emotions are developed in the mind after coming across an event. Fear of the unknown is an individual's propensity to experience fear caused by the perceived absence of information at any level of consciousness or point of processing (Carleton, 2016). Dubrin and Ireland (1993) added the idea of fear as the common denominator of resistance to change in their study. Fear of unknown concerns with how an individual responds to a situation where he or she is expressing his or her view and reacts to a situation where the results are not

known and the outcome of their actions is uncertain. Individuals respond differently to different situations (Hartmann, Weiss, Hoegl, & Carmeli, 2020). Individuals who have a higher level of fear of the unknown find it very discomforting when they have to face a situation where they are confronted with uncertain situations (Sand, 2017). According to Nitschke and Grupe (2013), fear of unknown is something that influences the perception and desire for predictability and controllability; and if controlled can affect the consequences of the situation. Similarly, Jamil, Jamil and Bano (2016) conducted a study on classroom teachers and reported fear of using technology as the intrinsic barrier (teacher level barrier) that may cause user resistance.

2.2. Emotional Regulation

Emotions refer to mental states that are generated on the spot in the given circumstances. Emotions can be positive or negative, fleeting or more prolonged, and emotions can be experienced with different levels of intensity, depending upon the situation in which emotions are being developed (Wu, Yuan, Yen, & Xu, 2019). Emotions are also under cognitive control meaning that emotions developed in a situation can be controlled by the human mind, whereby strategies for emotion regulation mean that they may be experienced more or less intensely (Gillespie & Beech, 2016). People feel very much flexible in dealing with their own emotions because it is easier for them to control their own emotions and they know in which direction they are supposed to take their emotions. Like: Goldin, Lee, Jazaieri, Heimberg, and Gross, (2014) suggests that emotional regulation can be done using different strategies and can effectively change emotions, behavior, desire, feelings and the way an individual responds to a certain situation.

2.3. End User Grumbling

Kim and Kankanhalli, (2009) defined end-user grumbling as an overt (open and expressive) and active (originating action) form of resistance. According to Laumer (2014) grumbling is a type of resistance that is shown through conversation and word of mouth. The results of the study illustrate that when an ERP system was introduced into the organization; cognitive resistance to change affected employee's grumbling (Laumer et al., 2014). Similarly, Garvin & Roberto, (2005) suggested that with the introduction of

a new system and not providing enough change information to the users of the technology leads to a higher level of end-user grumbling and this happens because the individual thinks that the old processes were good enough thus change is not needed (Pereira, Maximiano, & de Souza Bido, 2019).

2.4. Emotional self-regulation theory

The overarching theory that supports the current framework is Emotional self-regulation theory and is proposed by Baumeister, Heatherton and Tice (1994). They illustrate it as the capacity of an individual to alter his or her behavior in a situation. Regulating one's emotion helps in increasing the flexibility and adaptability of human behavior, it helps in adjusting their actions and behavior in terms of social demands and situational demands (Tangney, Baumeister, & Boone, 2004). Emotional self-regulation provides advantages to individuals and society. Regulating emotions provides a good sense of self-control that gives benefits like performing well in a task, work success, popularity, adjustment and good interpersonal relationship at the workplace (Baumeister, Heatherton, & Tice, 1994).

In addition, Emotional self-regulation theory is based on the model of emotion. The model suggests that emotions are generated in a particular sequence that is situation, attention, appraisal, and response. Change in emotion occurs when an event happens and because of that event, an individual feels comfortable or uncomfortable due to which different emotional behaviors might come forward; and by regulating these emotions the consequences of the event can be controlled.

2.5. Hypotheses Development

2.5.1. Lack of Change information and end user grumbling

During the process of change, information is one of the critical factors that may lead to resistance and failure of a project. However, it is believed that change information is considered important only when information about the change is timely, useful and adequate (Wanberg, 2000; Neves, Pires, & Costa, 2020). Like, Ur Rehman, Khawaja and Ali (2019) reported the importance of timely communication as an important factor for building trust. Similar observation was made by Axtell (2002) that proper change information results in more openness to change and it also helps in reducing the level of

resistance to change or grumbling.

According to the emotional self-regulation theory, any event occurs; produces some emotions and reactions. Emotions (fear of unknown) that are developed by an individual due to an event (lack of change information) can either be positive or negative and ultimately leads to some negative consequences (end-user grumbling). Hence, the following hypothesis is proposed:

H₁: lack of change information has a positive relationship with end-user grumbling

2.5.2. Mediation: Lack of change information, fear of the unknown and end user grumbling

Fear of the unknown or uncertainty is the basic cognitive process underlying all anxiety disorders (Clark & Beck, 2010.). In an organization when change is introduced then behaviors of individuals related to that change are more frequently driven by emotions (Laumer, 2014). End-user grumbling is a type of resistance to change behavior as in “actions or intention to act in response to the change” (Oreg, 2006).

Previous research of Simoes and Esposito (2016) has studied change information, change management with the construct of resistance to change and their study showed that if the change is not managed in the right manner then it leads to resistance; that causes failure of change being brought into the organization (Wang, Han, & Beynon-Davies, 2019).. According to Emotional self-regulation theory when an individual comes across an event (lack of change information), he will develop certain kinds of fear without knowing the output of that event (fear of unknown); and so leads to user resistance.

H₂: Fear of the unknown mediate the relationship between lack of change information and end-user grumbling.

2.5.3. Moderation: Emotional regulation, fear of the unknown and end user grumbling

Emotion regulation is a process that involves the management of a diverse system. This diverse system includes controlling facial expressions, behavior and motivation and cognitive evaluations (Thompson, 1994).

According to emotional self-regulation theory, an individual can develop a fear

(that is a form of emotion) due to the occurrence of an event and sometimes individuals face difficulties in predicting that what might happen in the future if they do this or that. Hence, regulating this emotion can be very helpful. Emotional regulation may help in reducing anxiety disorders and fear of the unknown. Training one's emotions in the right manner have a positive impact on reducing the level of resistance and grumbling because one can see the end result (Goldin, et al., 2014). Hence, the following hypothesis is proposed:

H₃: *Emotional regulation moderate the relationship between fear of unknown and end user grumbling such that higher level of emotional regulation will weaken the positive relationship between fear of unknown and end user grumbling.*

Figure 1. Theoretical Framework

3. RESEARCH METHODOLOGY

3.1. Sampling and Data Collection Technique

The convenience sampling method was used and data was collected from 334 end-users of the FBR system. Questionnaires were used to collect the response by personally visiting the respondent of Rawalpindi and Islamabad. A cover letter was provided with each questionnaire for communicating the importance of this study and assuring the privacy of information. The whole process of data collection took place in four weeks approximately.

3.2. Measures

3.2.1. Lack of change information

Lack of change information was measured using 4 item scale of Wanberg (2000)

on the 5-point Likert scale (from 1=strongly disagree to 5=strongly agree). The reliability coefficient (Cronbach's Alpha) reported for lack of change information scale is 0.93.

3.2.2. Fear of the unknown

Fear of the unknown was measured using 12 item scale of Carleton (2016) on the 5-point Likert scale (from 1=strongly disagree to 5=strongly agree). The reliability coefficient (Cronbach's Alpha) reported for fear of the unknown scale is 0.94.

3.2.3. Emotional Regulation

Emotional regulation was measured using 10 item scale of Gross (2003) on the 5-point Likert scale (from 1=strongly disagree to 5=strongly agree). The reliability coefficient (Cronbach's Alpha) reported for emotional regulation scale is 0.79.

3.2.4. End user Grumbling

End user grumbling was measured using 5 item scale of Laumer et al (2014) and Kim and Kankanhalli (2009) on the 5-point Likert scale (from 1=strongly disagree to 5=strongly agree). The reliability coefficient (Cronbach's Alpha) reported for end user grumbling scale.

3.2.5. Control variables

To find the association between demographic variables and dependent variable; one way ANOVA test was conducted. Gender was found significant for end-user grumbling. Age and education were found insignificant to end-user grumbling. Hence only gender was controlled.

4. RESULTS AND ANALYSIS

4.1. Sample Characteristics

Data screening analysis is conducted to ensure the exclusion of missing data. In order to get an accurate response for this study total of 350 questionnaires were distributed among the target population, 16 responses were excluded from the data set because of incomplete and missing data. Hence, a total of 334 complete responses were used for conducting statistical data analysis. Table 1 illustrates the demographic statistics w.r.t gender, age, education for the current study.

Table 1. Demographic Statistics

Sr #	Demographic	Categories	Percentage	Mean	SD
1	Gender	Male Female	49.2% 50.8%	1.508	0.5
2	Age	20-26 27-32 33-38 39-44 45-50 51-56	33.2% 38.3% 15.3% 8.8% 2.8% 1.6%	30.10	6.72
3	Education	F.Sc Bachelors Master Ph.D.	18.4% 40.0% 38.4% 3.2%	2.26	0.79

4.2. Correlation

Correlation Analysis is conducted to check the association between the variables. Cohen (1988) explained that the correlation value of .10 to .30 as low; .30 to .50 as high; while the value of correlation above .50 is reported as a very high correlation. The mean value for Lack of change information is 3.31, for fear of the unknown is 3.25, for emotional regulation is 3.27 and for the end-user grumbling is 2.69 respectively. The value of correlation depicted in table 2 that fear of unknown (FOU) is significantly correlated with end-user grumbling (EUG) ($r=0.687^{**}$) and lack of change information is significantly associated to fear of unknown ($r=0.298^{**}$) and end-user grumbling ($r=0.128^{*}$).

Table 2. Means, Standard Deviations, Correlations, and Reliabilities for Key Variables in the Study

Variable	Mean	SD	1	2	3	4
Lack of Change info	3.31	.99	(.81)			
Fear of Unknown	3.25	.91	.298**	(.95)		
Emotional Regulation	3.27	1.01	-.045	-.73**	(.97)	
End User Grumbling	2.69	.88	.128*	.68**	-.69**	(.87)

*Note $n=334$, Cronbach's alpha reliabilities are presented in parentheses. * $p<.05$, ** $p<.01$, *** $p<.001$.

4.3. Process Regression Analysis

Macro PROCESS, Model 1 for moderation and Model 4 for mediation was used to test the proposed research model (Hayes, 2013). The below-given table 3 depicts that CI was found to have a positive influence on FOU ($B = .5953$, $t = 19.79$, $***p < .001$). CI has a positive influence on EUG ($B = .2902$, $t = 4.0411$, $***p < .01$). FOU mediates the relationship between CI and EUG such that the upper and lower limit of indirect effect (0.6545, 0.5360) doesn't contain zero. Hence proving hypotheses 1,2,3,4.

Table 3. Mediated Regression Analysis Results

	Variable	R	R ²	B	SE	T	p
1	CI on FOU	0.78	0.62	.59	.03	19.79	.000
2	CI on EUG (Total Effect)	0.52	0.27	.42	.04	9.53	.000
3	FOU on EUG			.23	.09	2.47	.014
Bootstrap Results for Indirect Effects							
				Effect	SE	LL95 % CI	UL 95% CI
	Indirect Effects OI			.14	.06	.02	.28

*Note: $n = 250$, CI=Lack of Change info; FOU=Fear of Unknown; EUG=End User Grumbling. Bootstrap Sample Size=5000. LL=Lower Limit, CI= Confidence Interval, UL= Upper Limit.

The result of Model 1 for moderation shows that emotional regulation moderates the relationship between fear of unknown and end-user grumbling ($\beta = -.1117$, $t = -2.85$, $**p < .05$) hence it supports the moderation hypothesis H_5 .

Table 4. Moderated regression of Emotional Regulation between Fear of unknown and end user Grumbling

Sr#	Predictor	B	SE	T	P	
1	Constant	4.6268	.2181	21.21	.0000	
2	FOU	.6840	.1159	5.9	.0000	
3	ER	-.3890	.0489	-.7952	.0000	
4	FOU*ER	-.1117	.0392	-2.8516	.0046	
Conditional direct effects of X on Y						
Mod	Effect	SE	T	P	LLCI	ULCI
MOD-1 SD (-1.01)	.4965	.0647	7.6796	.0000	.3693	.6237
MOD M (.00)	.3831	.0527	7.2792	.0000	.2795	.4868
MOD+1 SD (1.01)	.2697	.0673	4.0066	.0001	.1373	.4022
Note: N=334; Unstandardized regression coefficients. Bootstrap sample size = 5000; LL= Lower Limit; UL= Upper Limit; CI=Confidence Interval;						

To clarify the results of the moderation hypothesis and the effect of emotional regulation; the graph was plotted (Figure 2). The interaction plot depicts higher values in case of low emotional regulation (Beta= 0.49, *** $p < .001$) as compared to that of high emotion regulation (Beta= 0.26, *** $p < .001$). So the proposed moderation hypothesis 5 is proved.

Table 5. Result of Simple Slope Tests for Significant Interactions on Emotional Regulation

Interaction	Dependent variable			
	End User Grumbling			
	Moderator Condition			
	Low ER		High ER	
	<i>B</i>	<i>P value</i>	<i>B</i>	<i>P value</i>
Int_1	.49	.0000	.26	.0002

Figure 2. The interactive effect emotional regulation on fear of unknown and end user grumbling.

5. DISCUSSION

Managing change in the current era is one of the major goals of every organization because the management of change at any level is crucial to the success of

the organization and it helps in achieving many goals (Ardito, Ernst, & Petruzzelli, 2020).. Change information and resistance have been studied in the past but the current study has proposed a model that studied these constructs with two new variables fear of unknown and emotional regulation. The statistical results, in table 3,4,5 depicted that fear of unknown mediates the relationship between lack of change information and end-user grumbling and emotional regulation moderates the relationship between fear of unknown and end-user grumbling. Hence all proposed hypotheses were proved.

The study has made a major contribution to the existing body of literature, by testing and proposing the relationships based on research gaps. Moreover, in Pakistan, not much research has been done on technological change brought by the organizations and their consequences. Second: this study is helpful for the respective department to understand the perceptions of FBR system users about the information provided regarding changes inculcated by the Federal Bureau of Revenue, Pakistan w.r.t the implementation and usage of the online portal for data entry. Third: this research will be useful for FBR system developers and administrators for understanding events and factors that may lead to end-user resistance.

6. CONCLUSION

Managing Change in an organization is important for the success of any organization, and in case of an unfavorable event, it may result in negative consequences (Cooke, Wang, & Bartram, 2019). Hence, the purpose of this study is to investigate whether lack of change information influences end-user grumbling with the mediating effect of fear of unknown and moderating effect of emotional regulation on end-user grumbling. Based on the assumptions of emotional regulation theory and existing past literature hypotheses were proposed. The results from the statistical analysis revealed that fear of unknown mediates the relationship between lack of change information and end-user grumbling and emotional regulation successfully moderates the relationship between fear of unknown and end-user grumbling. Hence all hypotheses were tested proved.

6.1. Limitations and Future Directions.

Regardless study implications, the study has some limitations. First: the current

study focused only on the users of the FBR system; thus there may be a problem of generalizability. In the future, the viewpoint of system developers, administrators, and office employees should also be taken into notice. Second: the same model can be used to test the acceptance of other systems/technology, in order to reconfirm the generalizability of the study. Third: different dimensions of change information, fear of unknown and emotional regulation can be used to study user resistance. Fourth: gender can be used as the moderator in future studies to see which gender shows more resistance and grumbles more about the changes brought into the system. Fifth: Intolerance of uncertainty can be taken as a mediator in future studies to see its results with the proposed model.

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