

ORIGINAL CONTRIBUTION

## Adaptation, Translation, and Psychometric Analysis of the Organizational Trust Scale in the Perspective of Muslim Majority Society of Khyber Pakhtunkhwa

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**Abstract.** Mutual trust between the organizations and their employees is crucial for maximizing firms' value and also the socio-economic benefits to the society. Particularly, in the Islamic perspective, it results in a good outcomes both for this world and the Hereafter. While majority of organizational trust instruments have been developed in English, scholars have made few attempts to examine the validity and reliability of their translated versions in diverse contexts. In literature, Schoorman and Ballinger (2006) Organizational Trust Scale is one of the self-rating instruments developed to investigate the association among subordinates and leaders or managers. The translation/back translation method was used to translate the instrument into Urdu. Survey was conducted to collect information from the employees working in the public sector organization of Khyber Pakhtunkhwa to measure employee's trust on managers or leaders. Cronbach's alpha was used to test the reliability of the translated scale. Principal Component Analysis was used to test the construct validity of the instrument. The findings of the research study suggest that the unidimensional structure of the Organizational Trust Scale of Schoorman and Ballinger (2006) can be applied to the Pakistani public sector organizations particularly for finding the impacts of the Islamic social values and principles in performance of the organizations.

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## INTRODUCTION

Trust is the binding thread of a social fabric by dint of which, consultation and delegation of authority can be accomplished in such a way that everyone is accountable for their actions and deeds. A leader/manager is a trustee/*amīn* who must value the trust bestowed on her/him by the employers or superiors and the employees or subordinates. Sherif (1975) acknowledged trust as one of the major values of Islam. Moreover, it is clearly stated in Qur'ān (23:8) that to be a *mu'min* of the highest order, trust is one of the main features.

In the past decades, trust attracted many scholars from different disciplines including social psychology (e.g., Kramer, 1999; Lount Jr, Zhong, Sivanathan, & Murnighan, 2008), organizational theory and strategy (Gulati, 2007; Gulati & Nickerson, 2008; Uzzi, 1997; Zaheer & Venkatraman, 1995), business history (Fukuyama, 1992, 1999), economics (e.g., Berg, Dickhaut, & McCabe, 1995; Guth, Klose, Konigstein, & Schwalbach, 1998), and different interdisciplinary studies that include supply chain relationships (Kwon & Suh, 2004), organizational behavior (Farris, Senner, & Butterfield, 1973), managerial problem solving (Zand, 1972), and cooperation and team work (Jones & George, 1998). Moreover, organizational researchers argue that trust plays a significant role in increasing the efficiency, performance, and effectiveness of the organizations (Deming, 1994; Kramer & Tyler, 1996; Lewicki, McAllister, & Bies, 1998; Mayer & Davis, 1999; Mayer, Davis, & Schoorman, 1995). According to Gambetta (1988), an extensive research has been done to find out ways to build and enhance the level of trust among personnel, arguing that trust is a desired cultural attribute in views of an organization. This viewpoint is supported by a number of studies that associate trust with a range of work factors, including organizational commitment (Cook & Wall, 1980), support for authorities (Brockner, Siegel, Daly, Tyler, & Martin, 1997), employees' performance (Mayer & Davis, 1999), mutual gains bargaining (Friedman, 1993), problem-solving (Zand, 1972), and organizational citizenship behavior (Konovsky & Pugh, 1994).

All of those research studies demand a reliable and valid construct of the abstract concept of trust. Majority of trust's constructs were developed in English, and a small number of research studies were conducted to examine the validity and reliability of their translated versions.

Therefore, this research study is an attempt to statistically investigate the validity and reliability of the translated Urdu version of Schoorman, Mayer, and Davis (2007) trust scale in the context of public sector organization (Directorate of Information and Public Relation, in the Muslim majority society of Khyber Pakhtunkhwa).

### Research Question

Could the translated organizational trust scale of Schoorman et al. (2007) be applied in the public sector organizations of Khyber Pakhtunkhwa?

The main aim of current research study is to investigate the validity and reliability of the Urdu version of Schoorman et al. (2007) trust scale in the context of public sector organization (Directorate of Information and Public Relation, Khyber Pakhtunkhwa). The major research question is: could the translated organizational trust scale of Schoorman et

al. (2007) be applied in the public sector organization in Khyber Pakhtunkhwa?

## LITERATURE REVIEW

Researchers (Castaldo, 2002; Kramer, 1999; Mayer et al., 1995) contend that obtaining a trust definition that is universally accepted is difficult. On the basis of literature review, it is suggested that regardless of the disciplines, any definition of trust should include the following aspects:

- 1) Indicates that the negative consequences are bigger than the positive ones (Luhmann, 1988; Rousseau, Sitkin, Burt, & Camerer, 1998);
- 2) Castaldo (2002) states five categories to incorporate in trust's definition i.e., actions and behaviors, the construct, risk involved in decision-making situation, the subject in which trust is placed, the results, and the outputs of behavior;
- 3) Easily distinguishes itself from the related models, e.g., familiarity, confidence (Luhmann, 1988);
- 4) In terms of a mental state (Rousseau et al., 1998).

On the basis of Mayer et al. (1995) model of trust, this study defines trust as one party's readiness with a risk awareness that predicts the adverse results to be larger than the advantageous anticipations, to be vulnerable to the other party's actions in a situation of mutuality, which is personal and situation-specific (Bhattacharya, Devinney, & Pillutla, 1998).

Scales of trust have been developed for diverse research contexts. For example, Cummings and Bromily (1996), Hart, Capps, Cangemi, and Caillouet (1986), and McAllister (1995) designed organizational trust's measure; to measure trust in close relationship, scales were developed by Larzelere and Huston (1980) and Rempel, Holmes, and Zanna (1985) respectively; to measure interpersonal trust, scales were developed by Johnson-George and Swap (1982) and Rotter (1967).

A research study was conducted by McEvily and Tortoriello (2011) to review and provide recommendation to measure trust specific to the organizational context. Their study reviews 22 scales of trust developed by different researchers to measure trust in diverse contexts. In their analysis, they found that 5 (Table 1) noteworthy scales are developed to measure trust specifically in the organizational context.

Trust is an important element in the light of the Islamic values and principles regarding the behavior of the people in any society. It basically relates to the responsibility and accountability that Islam emphasizes (Saleem, Malik, & Khattak, 2016). The sense of accountability to the Almighty requires that the individuals in a group or an organization take care of the rights and liabilities of each other and have trust on one another. All human beings are accountable before Allah for their actions. Qur'ān says, "O you who believe; betray not the trust of Allah and the Messenger, nor misappropriate knowingly things entrusted to you." (Qur'ān, 8:27).

The framework of mutual trust and responsibility in the perspective of Islamic values is covered under the social concept of '*al-naṣīḥah*' meaning a well-wishing behaviour-compassion, advice or sincerity to one another. The Prophet (PBUH) said as per a well-known *ḥadīth* that the entire religion (Islam) is encompassed in the concept of *naṣīḥah* [to

*Allah, to His Book, to His Messenger, and to the leaders of Muslims and their common folk (Ṣaḥīḥ Muslim)*]. Accordingly, the objective of all in an organisation working for the Islamic higher purposes is to be trustworthy, well-wishing, and sincere to oneself, to fellowmen, to employers, and to the society (Siddiqui, 2015; p. 171).

Trust results in a well-wishing behavior and close relation among the members of any organization. Thus, trust leads to an effective use of the available resources through delegation of authority and well-wishing sentiment to all stakeholders including the public at large. As a result, it plays a vital role in an effective management of the organizations and achieving their objectives.

Trust, as a salient feature of effective management, tends to develop a cordial relationship between the organization and the employees. Islam also obliges the leaders and the management to have trust on the subordinates and the employees. Holy Prophet says, “*Allah says that, on the Day of Judgment, I will act as plaintiff against the person who engages some worker on work. The person takes full work from the worker but does not pay him due amount of the work*” (Ṣaḥīḥ Bukhārī). It requires mutual trust of both the employer and the employees. Trustworthiness is the characteristic that must be present in anyone who claims to be a believer. The sayings of the Prophet Muhammad (PBUH) indicate that dishonesty and betrayal are completely at odds with the Islamic faith. The Prophet Muhammad (PBUH) informed us that “*A hypocrite is known by three traits: When he speaks, he lies; when he promises, he reneges; when he is entrusted, he cheats (or embezzles).*” (Ṣaḥīḥ Bukhārī, 33; Ṣaḥīḥ Muslim, 59). It implies that trust has to be a major characteristic among the members of any society in general and any organisation in particular.

**TABLE 1**  
**Noteworthy scales of trust to measure trust in the organizational trust context**

Authors	Scales
McAllister (1995)	Managerial Interpersonal Trust
Currall and Judge (1995)	Boundary Role Person's Trust
Cummings and Bromiley (1996)	Organizational Trust Inventory
Mayer and Davis (1999)	Organizational Trust
Gillespie (2003)	Behavioral Trust Inventory

Source: McEvily and Tortoriello (2011)

The trust model by Mayer et al. (1995) argues that an individual's trust on manager or leader is based on three facets i.e., integrity, benevolence, and ability. Benevolence means the perception of the trustor about the trustee that he or she cares about the trustee. Integrity means the perception of the trustor about the trustee that he follows the set of principles and values that are acceptable to the trustor. Ability means the dedication, competencies, skills, and efficiency of the trustee. Moreover, Mayer and Gavin (2005) indicate that benevolence, integrity, and ability are the significant dimensions that play an important role in understanding trust. Recently, Schoorman and Ballinger (2006) developed and validated a 7-item measure of trust by expanding the original scale of trust of Mayer et al. (1995) which has minimized the issues related to the reliability (Cronbach's alpha level) of the previous scale (Mayer et al., 1995).

## RESEARCH METHODOLOGY

### Population and Sample Size Determination

The population of this research study was the employees working in a Public Sector Organization of Khyber Pakhtunkhwa namely the Directorate of Information and Public Relation. The subject-to-item ratio of the principal component analysis was used to calculate the sample size for current study. The ratio was assigned to be (5:1) five datasets for a single item (Costello & Osborne, 2005; Goodwin, 1999; Guadagnoli & Velicer, 1988). There are total 7 items in the study. By following the subject-to-item ratio rule, the sample size pertained to 35 entries. The back-translation method for cultural research suggested by (Brislin, 1970) was used to translate the organizational trust scale from English to Urdu.

### Data Collection Procedure

The questionnaire was circulated to all the 263 employees through the representation of the organization. Out of those, 250 were received back. Out of these 250 questionnaires, 11 questionnaires were found incomplete and excluded from the analysis. The final sample size for the current study consisted of 239 datasets. The sample size is greater than the required sample size for conducting a principal component analysis.

## RESULTS AND DISCUSSION

### Descriptive Statistics

Table 2 explains the descriptive statistics of this study. Responses from 239 employees have been included in the analysis. Their demographics are given in Table 2. There were 230

**TABLE 2**  
**Descriptive statistics of variables**

Demographic Variables	F	%	Demographic Variables	F	%
Gender			Income level		
Male	230	96.2	10,001 to 30,000	91	38.1
Female	9	3.8	30,001 to 50,000	100	41.8
Age			50,001 to 75,000	20	8.4
21-25	9	3.8	75,001 to 1,00,000	18	7.5
26-30	37	15.5	1,00,000 and above	10	4.2
31-35	42	17.6	Experience		
36-40	47	19.7	< 1 year	5	2.1
40 and above	104	43.5	1 to 5 year	46	19.2
Qualification			6 to 10 year	64	26.8
SSC	36	15.1	More than 10 year	124	51.9
HSSC	14	5.9	Religion		
Graduate	70	29.3	Muslim	233	97.5
Master	110	46	Christian	5	2.1
M.S / M. Phil	9	3.8	Hindu	1	.4
Cadre			Language		
Gazetted officer	53	22.2	Pushto	127	53.1
Non-Gazetted officer	145	60.7	Urdu	79	33.1
Staff	41	17.2	Hindko	15	6.3
			Saraiki	6	2.5
			Punjabi	12	5

males with frequency (96.2%) and 9 females (3.8%). The result of the demographical variable gender shows that the gender-based work force exists in the Directorate of information technology and public relation Khyber Pakhtunkhwa, Pakistan.

To get the information about the employees' experience in the organization, the demographic variable experience was also divided into four categories: < I Year, 1 to 5 Year, 6 to 10 Year, and  $\geq$  10 Year. The experience of employees was: 5 (2.1%), 46 (19.2%), 64 (26.8%), and 124 (51.9%) respectively.

Five categories were made to get the information about the qualification of employees namely Secondary School Certificate (SSC), Higher School Certificate (HSSC), Graduate (14 years of education), Master (16 years of education), and M. Phil (18 years of education). There were 36 employees (15.1%) who had SSC level qualification; 14 employees (5.9%) had completed their HSSC; 70 employees (29.3%) were university graduated; most of the employees 110 (46%) had completed 16 years of education, while 9 employees (3.8) had M. Phil degrees.

To get the information about the employees' cadre or management level, three categories were made namely Gazetted officer, Non-Gazetted officer, and staff. There were 53 Gazetted officers (22.2%) while majority of the employees (145 or 60.7%) were the Non-Gazetted officials (Including Office assistants, computer operators, clerks, etc. and 41 (17.2%) staff including peon, sweepers, security guards, etc.).

The income level was also divided into 5 categories. In the first category of income, the bracket was from 10,001 to 30,000. There were 91 employees (38.1%) in this category. The income bracket for the second category was from 30,001 to 50,000. There were a total of 100 employees (41.8%) in this category. The third bracket of income was from 50,001 to 75,000. There were 20 employees (8.4%) in this category. In the fourth category, the employees' income was from 75,001 to 100,000 and a total of 18 employees (7.5%) were in this category. Employees in the fifth category with salaries above 100,000 were 10 in number or (4.2%) of the total.

The age was divided into 5 brackets. In the first bracket of 21 to 25 years, there were 9 employees (3.8%). The second age bracket was from 26 years to 30 years and 37 employees (15.5%) pertained to this age bracket. The third age bracket was from 31 years to 35 years and 42 employees (17.6%) belonged to this age bracket. In the fourth age bracket, the age of the employees was from 36 to 40 years and 47 employees (19.7%) belonged to this age bracket. In the fifth age bracket of employees of age 40 years and above, there were total 104 employees (43.5%).

Religion is one of the important demographical variables that represent the diversity in the organization. In the current study, 233 (97.5%) respondents were Muslims, 5 (2.1%) were Christians, and 1 (0.4%) was Hindu.

Difference in the languages also shows diversity. In the current study, five different languages were used as a variable namely Pashto, Urdu, Hindko, Saraiki, and Punjabi. The frequencies of employees with their percentages are 127 (53.1%), 79 (33.1%), 15 (6.3%), 6 (2.5%), and 12 (5%) respectively.

### Validity of the Organizational Trust Scale

The original scale of organizational trust was in English. The current study used the scale in a different cultural context. Therefore, the reverse translation method was adopted. After the translation, the principal component analysis with Varimax rotation and Kaiser Normalization was used. The initial results showed three factors (Eigen value = > 1) with a cumulative variance of 62.499%. Component loadings ranged from -0.068 to 0.821. The last item showed the negative correlation with the other items. After deletion of this item, the remaining 6 items were again entered for principal component analysis. These 6 items again formed two factors with a cumulative variance of 52.878%. The component loading ranged from 0.002 to 0.816. The item with the loading of 0.002 was deleted and principal component analysis was run again on the remaining 5 items. Still the results showed the formation of two factors (Eigen value = > 1) with a cumulative variance of 60.008%. The component loadings ranged from 0.020 to 0.828. The item with loading 0.020 was deleted and the remaining 4 items were entered for principal component analysis again. As in Table 3, result shows the cumulative variance of 45.771% (Eigen value = 1.831) and forms one factor. For these four items, component loadings ranged from 0.424 to 0.601.

**TABLE 3**  
**Principal component analysis of organizational justice**

Scale Items	Component Loadings
Organizational Trust	
1 میرا افسر/نگران فیصلہ سازی کرتے ہوئے میرے مفاد کو ذہن میں رکھتا ہے	0.424
2 میں اس ادارے میں اپنے مستقبل پر اپنے نگران کے مکمل اختیار پر رضا مند ہوں گا	0.506
3 تخلیق کار/تخلیقی ہونے کے سبب میں اطمینان محسوس کرتا ہوں کیونکہ میرا نگران/سربراہ سمجھتا ہے کہ بعض اوقات تخلیقی حل کام نہیں کرتے	0.572
4 میرے لئے یہ اہم ہے/ضروری ہے کہ میں ایک اچھے طریقے/انداز سے اپنے نگران پر نظر رکھوں	0.601
Eigen Value	1.831
% of Variance	45.771

### Reliability of the Organizational Trust Scale

For testing the reliability of the organizational trust scale, Cronbach's alpha was used. The 4 items resulted from the principal component analysis were entered to test the reliability of the scale. As Table 4 shows, in the current study the value of Cronbach's alpha for the organizational trust scale was low (0.604), but still acceptable (Nunnally, 1967). Moreover, the study presented that a construct with as minimum as 3 items is sufficient to measure the reliability or internal consistency of a specific scale (Hinkin, 1995).

**TABLE 4**  
**Cronbach's alpha of organizational trust**

Reliability Statistics	
Cronbach's Alpha	Number of Items
.604	4

**TABLE 5**  
**Reliability of scale if item deleted**

	Scale Mean if Item Deleted	Item-Total Statistics		
		Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Org Trust 1	10.18	4.117	.333	.571
Org Trust 2	10.39	3.819	.391	.528
Org Trust 4	10.32	3.766	.397	.523
Org Trust 5	9.99	3.836	.416	.509

## CONCLUSION

The current study has authenticated that the Urdu version of the organizational trust scale developed by Schoorman and Ballinger (2006) can be used in a Public Sector Organization of Khyber Pakhtunkhwa with minimal changes to understand the level of trust that the employees have in their managers/leaders. Moreover, this scale also helps in building trust.

### Limitations and Recommendations

Like other research studies, this research study has also some limitations. This study collected data from the public sector organization only. Moreover, it used principal component analysis as an exploratory factor analysis technique. The study checked the face validity and construct validity through principal component analysis and reliability through Cronbach's alpha.

On the basis of current study, it is recommended that the future studies may check the convergent validity of the Urdu version of the organizational trust scale (Schoorman & Ballinger, 2006). It is also recommended that the future studies may apply the exploratory factor analysis through structural equation modeling. Further, studies may also be conducted regarding the impact of the Islamic values pertaining to trust in the organizational behavior in the societies with religious norms. On the basis of results of this study, it is also recommended that the future studies must develop an indigenous scale of organizational trust to get a better understanding of the phenomena.

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