

## Examining the dimensions of employee safety behavior: Validation from the microfinance sector of Pakistan



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### ABSTRACT

Employee safety behavior is a dynamic phenomenon that takes place in every organization where employee's concerns are taken for granted. Organizations and their respective authority are in search of ways to reduce the magnitude of such behavior by counseling employees. Research scholars play an important role in understanding and developing employee safety behavior. In this regard, specifically for assessing the way and magnitude of employee safety behavior (ESB), researchers have developed a tool to measure it. For achieving such an objective, researchers theoretically proposed the indicators to measure employee safety behavior effectively. These behaviors were: Avoidance and aggression coded as SBAV (safety behavior for avoidance) and SBAG (safety behavior for aggression). The present study strengthens the theoretical rationale of previous studies and validated the psychometric properties of employee safety behavior in the Pakistani context. 400 employees from 11 branches situated in different regions were surveyed, and data was analyzed using SMART PLS 3.0–software prominent due to its methodological usefulness. Findings illustrated that instrument satisfaction met the criteria of internal consistency reliability, convergent validity, and discriminant validity for both ESB dimensions. Findings clearly demonstrated that the ESB scale is effective enough in measuring employee safety behavior in the microfinance sector of Sindh, Pakistan. Hence, Future researchers are recommended to use this tool in measuring employee safety behavior in developing countries, specifically in Pakistan.

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### 1. Introduction

Safety has long been considered by organizations as a major concern because it has a strong linkage with direct as well as indirect cost (Neal and Griffin, 2006). Past research (Shaw and Sichel, 2013; Sutherland and Cooper, 1991) on safety behavior focused on identifying attitudes and personality traits. However, modern research has shifted the attention of safety researchers from individual attributes to management practices and work climate as a contributor to failure (Barling et al., 2003; Cox and Cheyne, 2000; Neal and Griffin, 2006; Parker et al., 2001). According to Chan and McAllister (2014), safety behaviors are common place among individuals who are suffered from post-

traumatic stress disorder (PTSD), which can be triggered by workplace bullying and victimization (P: 53-54). For example, a person indulged in stressful life trauma always prefers 'back seat driving.' Though this type of behavior does not reduce the risk or intensity of experienced stressful events; rather, it creates disturbance and feelings of irritation for fellow passengers, especially car driver.

Findings of primary research conducted by Freeman et al. (2005), in clinical as well as in non-clinical settings, identified that individual employees involved in disturbed negative emotions -fear, anxiety, and threat-opt for safety behaviors with the hope to decrease the level of risk. Research of Vogel and Mitchell (2017) confirmed the significance of aggression and avoidance as a key determinant of employee safety behavior. Their research suggests that experience of any harmful behavior or mistreatment by the supervisor/organization gives rise to aggression and avoidance by a concerned employee in order to repay their mistreatment.

Chan and McAllister (2014) provided an explanation for the role of avoidance and aggression

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as a worth able factor in determining employee safety behavior. However, the scale of employee safety behavior consisting of two dimensions-avoidance and aggression-needs to be validated, especially in developing contexts because the mere explanation that avoidance and aggression play a key role in endorsing employee safety behavior is not enough. Scale comprised of 17 items, 9-items for aggression, and 8-items for avoidance. Hence, the present study recommends the validation of the scale of employee safety behavior using its dimension avoidance and aggression in the Pakistani context.

In the consequent section, we have elaborated on the literature review, the method adopted followed by results. Conclusions are also drawn based on the findings of the present study.

## 2. Literature review

Safety behaviors, behaviors that employees adopt with the purpose of decreasing the level and risk of threat proposed by perpetrators, are performed as a reaction or as a way to deal with stressful events (Freeman et al., 2001; Salkovskis, 1991). According to Chapin (2001), it is optimistic thinking to adopt safety behavior in the circumstances when they feel underestimated in comparison to other co-workers. The belief that "it couldn't happen to me" has been found to be a consistent justification by Mullen (2004) for adopting such unsafe work practices (p. 275-285). A framework of safety behavior elaborated by Chan and McAllister (2014) explained that safety behavior captures many behavioral responses as a reaction to different negative forms of supervisory behavior directed towards employees such as workplace bullying, victimization, abusive supervision, incivility, undermining, and ostracism (Tepper et al., 2007).

The direct effect of safety behavior is intrapersonal in nature as it strives to maintain a suspicious pattern of thoughts (Chan and McAllister, 2014; Freeman et al., 2001). Researchers further argued that safety behavior provides a tool for psychological relief that substantiate the concerning efficacy and reinforce them towards commitment for vigilance and observation. Tepper et al. (2001) claimed that safety behaviors are adopted only with the intention to decrease the magnitude of mistreatment. Considering the available literature on safety behavior, Freeman et al. (2001) identified compliance, help seeking, avoidance, aggression, and ingratiation as principal forms of safety behavior, but in the present research, aggression and avoidance have been recognized as key drivers of safety behavior and Freeman et al. (2001) argued that items of avoidance and aggression behavior need to be considered in order to determine the employee safety behavior because Freeman and Garety (2004); Freeman et al. (2005) and Kramer (2001) claimed that avoidance and aggression is the main prototypical behavioral response.

After a comprehensive review, Chan and McAllister (2014) theoretically developed the scale of employee safety behavior that contains the dimensions of avoidance and aggression, but that scale was not validated in developing countries where the ratio of safety behavior is very high. This study will potentially address this gap in the Pakistani context by answering the question like what are the psychometric properties of the employee safety behavior scale (ESBS) and its factor structure in the Pakistani context.

## 3. Methods

### 3.1. Sample and population

A proportionate stratified sampling technique was adopted, and survey questionnaires were distributed to 400 employees of microfinance sectors from different regions of Pakistan. Ten microfinance banks were selected, and questionnaires were distributed in different branches of these banks (See Table 1 for microfinance branches). For this study, we preferred Krejcie and Morgan (1970) sample size determination criteria. Because it takes into account the precision and level of confidence, which ensure that sampling error has been minimized. If we refer to the sample size table generated by Krejcie and Morgan (1970), the sample size for this study would be 377, which represents the whole population. A total of 400 questionnaires were distributed with the expectation of a 76% response rate to be on the safe side.

### 3.2. Demographic profile

We approached 400 employees as respondents from 11 branches of microfinance banks. The majority of the participants were male (275, 89.6%); however, only 32 participants were female (10.4%). Regarding the age group, 72% of respondents were under the age group of 20-30 years, 27.7% of respondents were under the group of 30-40 years, and only 3% of respondents were under the group of 40 years and above. Regarding the status of respondents, 103 respondents were single (33.6%); however, 204 respondents were married (66.4%). As far as their education is concerned, 227 respondents had bachelor's degrees (73.9%), 71 respondents (23.1%) were having a master's degree, and only 9 respondents (2.9%) were doing postgraduate.

As far as the experience level of respondents is concerned, 208 respondents (67.8%) had 2 years experience, 88 respondents (28.7%) had 5 years experience, and only a minimum number of respondents is 11 (3.6%) had the experience of more than 10 years. Table 2 provides the tabulation form of respondent's demographic characteristics.

**Table 1:** Total number of microfinance banks, its branches, and employees

No.	Banks	Number of branches	Number of employees	%
1	Advance microfinance bank limited	13	441	2.5
2	Apna microfinance bank limited	79	1411	8
3	FINCA microfinance bank limited	115	1855	10.0
4	Khushhali bank limited	167	3511	19.1
5	NRSP Microfinance bank limited	103	1957	11
6	Pak Oman microfinance bank	9	233	1.2
7	Telenor microfinance bank limited	147	2782	15.1
8	The first microfinance bank limited	123	2489	13.5
9	Mobilink microfinance bank limited	60	1532	8.2
10	U Microfinance bank limited	141	2112	11.5
Totals		957	18323	100

**Table 2:** Demographic profile of respondents

Demographics	Frequency	Percentage
Gender		
Male	275	89.6
Female	32	10.4
Age		
20-30 years	221	72
30-40 years	85	27.7
40-50 years	1	0.3
Status		
Single	103	33.6
Married	204	66.4
Education		
Bachelors	227	73.9
Masters	71	23.1
Postgraduate	9	2.9
Experience		
2years	208	67.8
5years	88	28.7
10years and more	11	3.6
Designation		
Teller/customer service/banking operations.	62	20.2
Sales staff.	208	67.8
Manager.	28	9.1
Others.	9	2.9

**3.3. Instrument**

Employee safety behavior (ESB) was measured by connecting two scales, one of avoidance and one of aggression. One thing must be noted here that using both scales to measure safety behavior is not a new idea. Rather Chan and McAllister (2014) have identified avoidance and aggression as safety behavior of employees at the workplace. Aggression scale of 8 items was adopted from Nifadkar et al. (2012). This study adopted it from Nifadkar et al. (2012) however this scale is an adapted version from the scale of social undermining (Duffy et al., 2002), the abusive supervision scale (Tepper, 2000), and a measure of dispositional verbal aggression

(Rancer et al., 1986). Reliability of the scale reported by author is 0.94. Original items were directed towards organization but due to the context these items were prefixed with ‘my supervisor’.

Avoidance scale of 8 items is an adapted version from PRCA (Personal Report of Communication Apprehension) (McCroskey, 1982). It is a trait measure of communication avoidance and social anxiety in our day to day situations. However, the items of this scale were modified to measure avoidance behavior directed towards the supervisor. The reliability of the scale reported by Nifadkar et al. (2012) is 0.87. The items are: All the items were measured on a five-point Likert scale ranging from ‘1’ never to ‘5’ always.

**4. Analysis and results**

PLS path modeling technique has been used for the analysis of research findings. According to Hair et al. (2011, 2014) and Sarstedt et al. (2014), PLS is used for testing and validating the research models. It is a variance-based technique that is used in the condition of small sample size, especially when the nature of research is exploratory. Wold (1975) stated that exploratory research normally requires a soft modeling approach; therefore, the PLS path modeling technique has been considered as suitable in this context.

Confirmatory factor analysis (CFA) has also been applied using SMART PLS 3.0 for determining the construct validity of ESB in the Pakistani context. Additionally, PLS Algorithm recommended by Geladi and Kowalski (1986) was estimated for assessing the internal consistency reliability, convergent validity, and discriminant validity. Table 3 shows the confirmatory factor analysis results for ESB.

**Table 3:** Confirmatory factor analysis results for ESB

Code	Indicators	Loadings	CR	AVE
Aggression			.861	.509
SBAG1	My boss uses offensive language with me	0.709		
SBAG2	My boss speaks disrespectfully with me	0.776		
SBAG3	My boss gets into loud arguments with me	0.704		
SBAG4	My boss speaks rudely with me	0.701		
SBAG5	My boss attacks me personally when I don't agree with his/her ideas	0.724		
SBAG6	My boss interrupts me when I am talking	0.660		
Avoidance			.799	.506
SBAV3	I prefer having minimum informal interaction with my supervisor	0.525		
SBAV4	I try to minimize official interactions with my supervisor	0.771		
SBAV5	As far as possible, I don't ask for help or information from my supervisor	0.843		
SBAV6	As far as possible, I try to stay away from my supervisor	0.668		

Depicted results in Table 3 showed the results of confirmatory factor analysis that yield two dimensions of ESB. Results also showed the values of internal consistency reliability and convergent validity. For assessment of internal consistency reliability, the present study follows the recommended threshold of Hair et al. (2011) as 0.70 or greater. Results depicted in Table 3 indicate that composite reliability values are above 0.7; hence successfully met the criteria. Secondly, convergent validity was also assessed by evaluating the values of Average Variance Extracted (AVE) of each latent variable (Fornell and Larcker, 1981). Chin (1998) suggested the AVE of each latent construct must be 0.5 and above. Results depicted in Table 3 indicate that AVE values of both constructs were greater than 0.5; therefore, it concludes that the present study successfully met the criteria of convergent validity.

For the present study, the value coefficient of AVE has been used to assess discriminant validity, as recommended by Fornell and Larcker (1981). This can only be achieved when a researcher compares the correlation of latent variables with the square root of AVE (Fornell and Larcker, 1981). In addition, with that, discriminant validity has been determined using the criteria suggested by Chin (1998) to compare the indicator loadings with other reflective indicators in the cross-loadings table. First, as a rule of thumb for evaluating discriminant validity, Fornell and Larcker (1981) suggested the use of AVE with a score of 0.50 or more.

To achieve adequate discriminant validity, Fornell and Larcker (1981) further recommended that the square root of the AVE must be greater than the correlations among latent variables. The results of the present study clearly indicate that the value coefficient of AVE is greater than 0.5 means the study has found an adequate level of discriminant validity.

## 5. Discussion and conclusion

This study has been undertaken to validate the ESB scale (Chan and McAllister, 2014) in the Pakistani context, specifically in the microfinance sector of different regions of Sindh, Pakistan. The findings of the current study offer some meaningful insights. The confirmatory factor analysis reveals that it is a multidimensional construct encompassing two indicators presented in Table 3. These findings are consistent with the findings of Chan and McAllister (2014), who theoretically validated the dimensions of employee safety behavior (ESB). Chan and McAllister (2014) not only validated the employee safety behavior using a theoretical perspective; rather, they elaborated in detail the theoretical dilemma that initiates safety behavior. Findings of confirmatory factor analysis, validity, and reliability further confirm the suitability of these two dimensions as a key indicator while measuring ESB in the microfinance sector of Sindh, Pakistan.

## Compliance with ethical standards

### Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### References

- Barling J, Kelloway EK, and Iverson RD (2003). Accidental outcomes: Attitudinal consequences of workplace injuries. *Journal of Occupational Health Psychology*, 8(1): 74-85. <https://doi.org/10.1037/1076-8998.8.1.74> PMID:12553530
- Chan ME and McAllister DJ (2014). Abusive supervision through the lens of employee state paranoia. *Academy of Management Review*, 39(1): 44-66. <https://doi.org/10.5465/amr.2011.0419>
- Chapin J (2001). It won't happen to me: The role of optimistic bias in African American teens' risky sexual practices. *Howard Journal of Communication*, 12(1): 49-59. <https://doi.org/10.1080/10646170119661>
- Chin WW (1998). Commentary: Issues and opinion on structural equation modeling. *Management Information Systems Quarterly*, 22: 7-16.
- Cox SJ and Cheyne AJT (2000). Assessing safety culture in offshore environments. *Safety Science*, 34(1-3): 111-129. [https://doi.org/10.1016/S0925-7535\(00\)00009-6](https://doi.org/10.1016/S0925-7535(00)00009-6)
- Duffy MK, Ganster DC, and Pagon M (2002). Social undermining in the workplace. *Academy of Management Journal*, 45(2): 331-351. <https://doi.org/10.5465/3069350>
- Fornell C and Larcker DF (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3): 382-388. <https://doi.org/10.1177/002224378101800313>
- Freeman D and Garety PA (2004). *Paranoia: The psychology of persecutory delusions*. Psychology Press, London, UK. <https://doi.org/10.4324/9780203508633>
- Freeman D, Garety PA, and Kuipers E (2001). Persecutory delusions: Developing the understanding of belief maintenance and emotional distress. *Psychological Medicine*, 31(7): 1293-1306. <https://doi.org/10.1017/S003329170100455X> PMID:11681555
- Freeman D, Garety PA, Bebbington PE, Smith B, Rollinson R, Fowler D, and Dunn G (2005). Psychological investigation of the structure of paranoia in a non-clinical population. *The British Journal of Psychiatry*, 186(5): 427-435. <https://doi.org/10.1192/bjp.186.5.427> PMID:15863749
- Geladi P and Kowalski BR (1986). Partial least-squares regression: A tutorial. *Analytica Chimica Acta*, 185: 1-17. [https://doi.org/10.1016/0003-2670\(86\)80028-9](https://doi.org/10.1016/0003-2670(86)80028-9)
- Hair JF, Ringle CM, and Sarstedt M (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2): 139-152. <https://doi.org/10.2753/MTP1069-6679190202>
- Hair JF, Sarstedt M, Hopkins L, and Kuppelwieser VG (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, 26(2): 106-121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Kramer RM (2001). 1. Organizational paranoia: Origins and dynamics. *Research in Organizational Behavior*, 23: 1-42. [https://doi.org/10.1016/S0191-3085\(01\)23002-0](https://doi.org/10.1016/S0191-3085(01)23002-0)
- Krejcie RV and Morgan DW (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3): 607-610. <https://doi.org/10.1177/001316447003000308>



- McCroskey JC (1982). Oral communication apprehension: A reconceptualization. *Annals of the International Communication Association*, 6(1): 136-170.  
<https://doi.org/10.1080/23808985.1982.11678497>
- Mullen J (2004). Investigating factors that influence individual safety behavior at work. *Journal of Safety Research*, 35(3): 275-285.  
<https://doi.org/10.1016/j.jsr.2004.03.011> **PMid:15288561**
- Neal A and Griffin MA (2006). A study of the lagged relationships among safety climate, safety motivation, safety behavior, and accidents at the individual and group levels. *Journal of Applied Psychology*, 91(4): 946-953.  
<https://doi.org/10.1037/0021-9010.91.4.946>  
**PMid:16834517**
- Nifadkar S, Tsui AS, and Ashforth BE (2012). The way you make me feel and behave: Supervisor-triggered newcomer affect and approach-avoidance behavior. *Academy of Management Journal*, 55(5): 1146-1168.  
<https://doi.org/10.5465/amj.2010.0133>
- Parker SK, Axtell CM, and Turner N (2001). Designing a safer workplace: Importance of job autonomy, communication quality, and supportive supervisors. *Journal of Occupational Health Psychology*, 6(3): 211-228.  
<https://doi.org/10.1037/1076-8998.6.3.211>  
**PMid:11482633**
- Rancer AS, Baukus RA, and Amato PP (1986). Argumentativeness, verbal aggressiveness and marital satisfaction. *Communication Research Reports*, 3(1): 28-32.
- Salkovskis PM (1991). The importance of behaviour in the maintenance of anxiety and panic: A cognitive account. *Behavioural and Cognitive Psychotherapy*, 19(1): 6-19.  
<https://doi.org/10.1017/S0141347300011472>
- Sarstedt M, Ringle CM, Henseler J, and Hair JF (2014). On the emancipation of PLS-SEM: A commentary on Rigdon (2012). *Long Range Planning*, 47(3): 154-160.  
<https://doi.org/10.1016/j.lrp.2014.02.007>
- Shaw L and Sichel HS (2013). *Accident proneness: Research in the occurrence, causation, and prevention of road accidents*. Elsevier, Amsterdam, Netherlands.
- Sutherland VJ and Cooper CL (1991). Personality, stress and accident involvement in the offshore oil and gas industry. *Personality and Individual Differences*, 12(2): 195-204.  
[https://doi.org/10.1016/0191-8869\(91\)90103-I](https://doi.org/10.1016/0191-8869(91)90103-I)
- Tepper BJ (2000). Consequences of abusive supervision. *Academy of Management Journal*, 43(2): 178-190.  
<https://doi.org/10.2307/1556375>
- Tepper BJ, Duffy MK, and Shaw JD (2001). Personality moderators of the relationship between abusive supervision and subordinates' resistance. *Journal of Applied Psychology*, 86(5): 974-983.  
<https://doi.org/10.1037/0021-9010.86.5.974>  
**PMid:11596813**
- Tepper BJ, Moss SE, Lockhart DE, and Carr JC (2007). Abusive supervision, upward maintenance communication, and subordinates' psychological distress. *Academy of Management Journal*, 50(5): 1169-1180.  
<https://doi.org/10.2307/20159918>
- Vogel RM and Mitchell MS (2017). The motivational effects of diminished self-esteem for employees who experience abusive supervision. *Journal of Management*, 43(7): 2218-2251. <https://doi.org/10.1177/0149206314566462>
- Wold H (1975). Soft modelling by latent variables: The non-linear iterative partial least squares (NIPALS) approach. *Journal of Applied Probability*, 12(S1): 117-142.  
<https://doi.org/10.1017/S0021900200047604>