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Scale Development of Formative Higher Order Construct: Situational Strength at Work

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ABSTRACT

The purpose of the study is to develop a scale measuring “situational strength at work” drawing on qualitative methods. This study contributes to the literature by using focus group and interview methods. The existing scale to measure this construct is based on the previously described theoretical universe. For item generation, nine interviews and one focus group studies are conducted. In order to measure content validity, interrater reliability index is calculated, and found as satisfactory.

Keywords: Situational Strength at Work, Scale Development, Formative High Order Construct

Introduction

It has been acknowledged in psychology that behaviours generally occur because of a joint function of individual traits and situations (Mischel, 1977, 1999; Weiss & Adler, 1984). Many scholars have pointed out that “situational strength” is most significant situational factor that must be considered when analysing the relationship between individual differences and behaviours (Meyer, Dalal, & Bonaccio, 2009). Although situational strength construct and situational strength theory are widely used in the literature, it is little known about the domain and structure of “situational strength” construct (Meyer et al., 2009). Because of absence of a theoretical framework for guiding the measurement of situational strength, operationalization of situation strength has varied greatly from study to study, and each study mainly employed a different measure to assess situational strength

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(Cooper & Withey, 2009). Lack of theoretical and empirical development has led researchers to use various ad hoc operationalizations of situational strength including situational ambiguity and/or uncertainty, task structure, choice of responses to a problem situation, situational constraints, meta features of the human resource management system such as consistently enforced rules, industry norms and market uncertainty, perceived control, feedback regarding specific forms of error prevention, climate strength and transformational leadership (Meyer et al., 2009). Meyer et al. (2009) in their meta-analysis study proposed two dimensioned situational strength (two broad categories: "constraints" and "consequence"). The authors contended that using of these broad two categories of situation strength will enable researchers to understand the moderating effect on relationship between personality trait and behaviours.

Based on the little consensus about the optimal structure of situational strength's construct space, the current study will develop a scale measuring situational strength at work (SSW).

Theoretical framework

Situational strength explains the notion that various characteristics of situations affect behaviours (Mullins & Cummings, 1999; Weiss & Adler, 1984). The main point of situational strength is that it enforces individuals to engage in behaviours that they are unlikely to demonstrate when left on their own devices (Adler and Weiss, 1988). Mullins and Cummings (1999) posit that situational strength may interact with the personality traits of key decision-makers to influence the likelihood of strategic changes at the firm level. When the situation is "weak", individuals are more likely to be influenced by their behavioural propensities since behavioural propensities are the most accessible sources of information about potential responses (Mischel & Peake, 1982). When the situation is "strong", subsequent behaviours are influenced by the context and there will be homogenous behaviours since strong situational cues replace individual discretion as the most important source of behavioural information (Mischel, 1977). Therefore, within strong situations, we expect behavioural homogeneity.

Situational strength concept was firstly studied in the work of Rogers (1954). He remarked that the situations providing psychological freedom leads to most likely individual differences in creativity. Moreover, more discussions regarding to situational strength mainly is based on ideas outlined by Walter Mischel. Mischel (1977) contends that strong situations limit the expression of individual differences. Therefore, situational strength is conceptualized as a multifaceted force that homogenizes behaviour by providing information about the most appropriate course(s) of action (Meyer et al., 2009).

The latest study conducted by Meyer et al. (2014) defined SSW in the lens of four facets. The first facet of situational strength, "clarity," is defined as "the extent to which cues regarding work-related responsibilities or requirements are available and easy to understand". This facet affects behaviour by providing simple and easily comprehensible information regarding work-related responsibilities and requirements. The second facet of situational strength, "consistency," is defined as "the extent to which cues regarding work-related responsibilities or requirements are compatible with each other". The third facet of situational strength, "constraints," is defined as "the extent to which an individual's freedom of decision and action is limited by forces outside his or her control".

The fourth facet of situational strength, “consequences,” is defined as “the extent to which decisions or actions have important positive or negative implications for any relevant person or entity”.

Scale development

The conceptualization of situational strength at work

A critical first step in scale development is a precise and detailed conceptualization of the interested construct and its theoretical context, called construct conceptualization (Podsakoff, MacKenzie, Lee, & Podsakoff, 2011). To do so, a systematic literature review (SLR) was conducted to find related literature on previous theoretical and empirical research on Situational Strength at Work construct. The search process stated in the study of Zhang and Babar (2010) was adopted. As a first step of the SLR, related resources and search engines for manual search were identified. Bogazici library search engine was selected as search engine because of its accessibility. Since our construct is “situational strength”, this phase was used in the search engine to find quasi-hold standard (QGS) publications (second step). While selecting quasi papers, the following questions were served as the inclusion/exclusion criteria includes:

- Is the paper published in SSCI index journals?
- Is the paper published within nine years? (Nine year period is selected since the last literature review on SSW was published in 2009).
- Are there any definitions of SSW construct?
- Are there any scales used for measuring SSW construct?
- Are there any other construct employed as antecedent/consequence of SSW construct?
- Are there any explanations indicating commonalities and differences between SSW construct and any other related and confounding constructs?
- Are there any explanations regarding breath and inclusiveness about the SSW construct?

Based on these criteria, five publications were selected; two of them are previous SLRs since using previous SLRs reduces the effort in manual search (Zhang and Babar, 2010). To elicit search strings, titles, keywords and abstracts of QGS publications were analysed through a content analysis program, Word Stat 6. The analysis yielded that most frequently used words are “strength” and “situational” as seen below.

Further, cluster analysis was conducted to catch concurrent words. words of “strength” and “situational” appears most concurrently in mentioned parts of the QGS publications.

Based content analysis; two search strings were built for search engine:

- (Title or abstract or subject terms) : (“situational strength”)
- (Title or abstract or subject terms) : (situational and strength)

Automated search produces 40 publications. These publications were eliminated based on the inclusion/exclusion criteria above and as a result, 14 publications were used to determine construct domain summarized into following table including the definitions, operationalizations of the SSW construct.

Table 1. Conceptualization of situational strength at work

Sources	Definition	Operationalization	Usage
José, 2009	Weak situation is when the situation is ambiguously structured so that subjects are uncertain about how to categorize it and have	Global construct scale developed by Meyer et al., 2014	

	no clear expectations about the behaviors most likely to be appropriate		
Meyer et al., 2009	In strong situations, motivated behaviors are more homogenous than would be predicted on the basis of motivational traits alone.	Situational strength can be organized into at least two conceptually homogenous dimensions “constraints” and “consequences”	
Auh et al., 2011	Strong situations such as those under firmly rooted and developed norms or climates, a uniform and unambiguous expectation is formed that dictates how one should think and behave	Employee involvement climate strength (EIC scale was used)	Moderating role of EIC on relationship between the five dimensions of service employee personality and perceived service climate
Menguc et al., 2011	Strong situations include strong norms, uniform and unambiguous expectations	The two types of climate—autonomy climate and knowledge-sharing norms	Moderating role on self-efficacy–Knowledge sharing relationship
Young, 2011	*Implicit or explicit cues provided by external entities regarding the desirability of potential behaviors *Psychological pressure on the individual to behave in certain ways	The feedback environment	
Wiita, 2012	Psychological pressure on the individual to engage in and/or refrain particular courses of actions	Autonomy	
Grant and Rothbard, 2013	Low ambiguity constitutes a strong situation in which behavior is not likely to vary as a function of individual differences	Ambiguity: Employees rated their perceptions of ambiguity using a scale. Ambiguity constitutes a weak situation	Moderating effect of ambiguity on the relationship between the content of employees’ values and their proactivity.
Günter et al., 2014	Psychologically strong situations are those in which there are strong behavioral norms, well-established role expectations, rules, policies, and procedures, strong incentives for specific types of behaviors, and clear expectations about what behaviors are rewarded and punished		*Antecedent of responsible leader behaviour. *Moderating role on relationship between individual-level factors and a leader’s propensity
He et al., 2014	Perceptions an employee holds about the policies and procedures administered by an organization	High procedural justice (i.e., high procedural consistency) is associated with higher situational strength	Moderating role of procedural justice on relationship between moral identity and employee engagement
Nouri et al., 2014	Weak situations do not provide clear and specific cues for sense making and leave room for individual discretion, increasing the variance in responses to the situation given by people with different personalities and cultural backgrounds	Task specificity	Moderating role on the on the relationship between team cultural diversity and team performance outcomes
Chang et al., 2014	Expectations concerning preferred behavior are relatively uniform and unambiguous in a strong situation	Group interaction: high group interaction creates strong situation	Moderating effect of group interaction on the mediated effect of political climate on employee turnover intention

Meyer et al., 2014	Situational Strength in the lens of four facets: “clarity,” “consistency,” “constraints”, and “consequences”	A scale measuring Situational Strength at Work as formative construct including dimensions of clarity, consistency, constraints and consequences	The moderating role of SSW on relationships between positive conscientiousness and organizational citizenship behavior; negative agreeableness and counterproductive work behavior
Bowling et al., 2015	Situational strength reflects the degree to which a situation contains cues that make it obvious how one is expected to behave, the degree to which the situation limits one’s choice of behavior, and the degree to which the situation includes incentives that are relevant to these behaviors.	Constraints and consequences can be conceptualized as formative indicators of situational strength	Situational strength as a moderator of the relationship between job satisfaction and job performance
Lee and Dalal, 2016	In strong situations, the information that employees receive from external entities is clear and consistent, employees’ freedom of decision and action is constrained, and employees’ decisions and actions have consequences	Climate strength	Antecedent of safety behavior

Item generation

Next step in the scale development is “items generation”. Items were generated based on review of the literature, deduction from the theoretical definitions of the construct and previous empirical researches. Churchill (1979) suggested using exploratory studies in item generation stage. Therefore, 9 interviews with worker at different positions in a leading automotive firm in Turkey, and a focus group study in one of the biggest national private bank were conducted.

The focus group study was firstly conducted. The group consist of 6 employees in a national bank. The number of participants was appropriate (Morgan, 1997). All participants were at same level position, and there was no manager in the group. The differences in authority or status result in high probability that the discussion will be uncomfortable (Morgan, 1997). When deciding on group composition, the author paid attention to form a homogeneous group in terms of background, not in terms of their perspective on the topic, as suggested by (Morgan, 1997). Therefore, the group consisted of participants, who have similar work background but work in different departments in the bank. SSW is about work environments, and different departments means different work environments and different perspectives. Accordingly, to select participants from different departments would provide different insights about SSW. Morgan (1997) also suggested that a group composition should ensure that participants in a group feel comfortable in saying something about the topic to each other. In the focus group, all respondents knew each other well and their personal relations were strong, which facilitated the discussion. To sum up, the size and composition of the focus group was appropriate for the discussion on the SSW. The discussion lasted for 70 minutes. It was audiotaped, and the participants have been informed about that.

Iacobucci and Churchill (2009) suggested conducting interviews after focus group studies to obtain more insights about the topic. In focus groups, participants may hesitate to reflect their

opinions within a group, so conducting interviews become more important. Therefore, employees working at different levels of the automotive firm were interviewed. Choosing the participants from different levels of the organization would provide many different insights. The interviews were audiotaped, and the participants have been informed about that.

The questions for exploratory studies were prepared based on the contemporary theoretical definitions of the construct. Meyer et al. (2014) suggested four-dimensional formative construct of Situational Strength at Work. In the exploratory studies, “Opposites”, “Laddering” and “Pyramiding” questioning approaches were adopted as suggested by Tindall (1994). These approaches are very useful in uncovering the personal definition and value of core, and secondary constructs of a person.

The audiotapes of the exploratory studies were transcribed, and the main themes were revealed by content analysis by the researcher. The following table contains the most mentioned themes and their frequency:

Table 2. Themes derived from the content analysis

Theme	Frequency
Our job descriptions clearly inform us about our responsibilities	4
Duty distribution is made by our manager orally and / or via email	4
Procedures give us clear information about expectations from us	3
We're given a certain amount of time that we have to strictly adhere to complete our work	4
In some workplaces jobs are carried out with strict rules about our work	3
We decide how to do things in the workplace	3
We decide when to do the work	3
Our manager is constantly checking on us	3
The management at our workplace gives necessary support in gathering the information we need about our work	3
Management gives support in our workplace in terms of implementing our business recommendations	9
My co-workers have a lot of discouraging sayings for my work	4
I understand my manager's expectations from me	3
I can tell my manager about my business ideas	3
I understand my manager's general attitude in the workplace	3
We get feedback regarding the results of my work	4
The rules originating from the hierarchy in our workplace are tightly obeyed	9
I trust the information I received from my colleagues	4
I trust the information I received from my manager	4
Different managers' expectations from me contradict with each other	3
Everyone in my workplace supports each other	3
I have good communication with my manager	3
There is a conflict between performance goals and workload	3
It is clear who is doing a job	3
We receive warnings about our negative behavior	3
The rules in our workplace with each other	4

Before adding up the items from extant literature, the themes emerging from the exploratory studies were itemized and categorized.

Content validity

Content validity constitutes the third step of scale development (Podsakoff et al., 2011). In this step, benefited from the procedure mentioned by (Podsakoff et al., 2011), a matrix in which definitions of different aspects of SSW domain were listed at the top of the columns and items were listed in the rows was constructed. A column stating “Given definitions do not cover the item” was added in order not to urge raters to feel classifying an item under a definition. Additionally, A column which contains general definitions of SSW was added in the case that an item may not be covered by definitions of given dimension but may be well suited to general definition. This condition indicates that there could be other dimensions which are not known. Subsequently, four PhD students as raters classified the items with respect to six categories.

The interjudge agreement has been calculated by the interrater reliability index based on Perrault & Leigh’s equation (1989, p.141). In the analysis, interrater reliability index was found as 0.69. As seen, there is nearly 70% interrater reliability in the coding process, which is satisfactory at minimum level (Perrault & Leigh, 1989). In any case, the unmatching items were omitted by the researcher, and the agreed items were selected to continue with the scaling process. Moreover, the overall percentage agreement is 55, 88%, indicating *more than chance level of agreement*.

Pre-test

Iacobucci and Churchill (2009) suggested that the pre-test should be done by personal interviews regardless of the actual mode of administration among respondents similar to those used in the actual study. Therefore 8 pre-tests were conducted. Actually, the pre-test was 3-staged (3+3+2). After each stage, the scale was revised and re-conducted. At the last stage, any comments about revision of the scale was not received, so the pre-tests were terminated.

The scale took its last version after pre-test session and was ready to be distributed. In following table, survey items are given. Some variables were reverse coded. Respondent were asked to rate each item according to 7 Likert scale (7= I strongly agree, 1= I strongly disagree). Higher scores indicate stronger situations.

As a result of the content analysis and the pre-test, four dimensions (clarity, constraints, consistency and consequences) emerged in line with the study of Meyer et al. (2014).

Table 3. Survey items

Items	Label	Reversed	Source
In your workplace, procedures provide clear information about expectations from employees	CLA1		Qualitative Study
Strategies of your department can be easily understood at your workplace	CLA2		Qualitative Study
In your workplace, your manager's expectations from employees are clear	CLA3		Qualitative Study
Job-related requests from other departments are clear	CLA4		Qualitative Study
The job descriptions in your workplace give clear information about employee responsibilities	CLA5		Qualitative Study
The procedures in your workplace give clear information about employee responsibilities	CLA6		Qualitative Study
In your workplace, the task distribution is made clearly by your manager	CLA7		Qualitative Study

In your workplace, procedures clearly describe how work is done	CLA8		Qualitative Study
In your workplace, the procedures do not explicitly describe how to do the work	CLA9	X	Qualitative Study
In your workplace, performance evaluation criteria provide clear information about the objectives that employees need to achieve	CLA10		Qualitative Study
The demands from your colleagues at your workplace are clear	CLA11		Qualitative Study
In your workplace, it is clear who made a job	CLA12		Qualitative Study
Your job site does not meet the specified job descriptions	CON SIS1	X	Qualitative Study
Your responsibilities at work do not conflict	CON SIS2		Literature
Work-related advice / guidance of your colleagues is consistent with company policies	CON SIS3		Literature
Your business manager's business advice / guidance is in line with company policies	CON SIS4		Literature
Expectations from employees at work conflict over time	CON SIS5	X	Literature
Your manager is firmly committed to procedures at your workplace	CON SIS6		Qualitative Study
In your workplace the rules don't contradict with each other	CON SIS7		Qualitative Study
Your manager is constantly checking on you	CON ST1		Qualitative Study
Employees decide when to do jobs at your workplace	CON ST2	X	Qualitative Study
At your workplace, corporate strategy restricts the way employees do their jobs	CON ST3		Qualitative Study
There is a free business environment in your workplace where employees can easily express their ideas	CON ST4	X	Qualitative Study
The rules regarding the work in your workplace restrict the way employees do their jobs	CON ST5		Qualitative Study
At your workplace, an employee needs to get approval for a job he plans to do	CON ST6		Qualitative Study
Procedures in your workplace restrict the way employees do their job	CON ST7		Qualitative Study
Your workplace employees can apply their own decisions	CON ST8	X	Qualitative Study
In your workplace, employees do not take the initiative	CON ST9		Literature
In your workplace, an employee's freedom of decision is restricted by other people	CON ST10		Qualitative Study
Employees decide how to do things in your workplace	CON ST11	X	Qualitative Study
Your manager at your workplace shares the risks associated with the results of employee decisions	CON SE1	X	Qualitative Study
The positive results of the work of the employee in the workplace are paid to the manager, the negative result is the employees	CON SE2		Qualitative Study
The results of the work done at your workplace are not clear because they occur in the long term	CON SE3	X	Qualitative Study
The work or decisions made by employees in your workplace can have negative consequences for the company	CON SE4		Qualitative Study
The work or decisions taken by employees in your workplace can have critical consequences for others	CON SE5		Qualitative Study
In your workplace, employees receive warnings about their negative behavior	CON SE6		Qualitative Study
In your workplace; the nature of your job may have negative consequences on human life and health	CON SE7		Qualitative Study

*G represents "general item" (based on global definitions of SSW). CLA represents "clarity". CON SIS represents "consistency". CON ST represents "constraints". CON SE represents "consequences".

Conclusion

For future studies, the discriminant and convergent validity should be measured. Moreover, to measure generalizability, the scale developed in this study should be tested on different samples.

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No, there are no conflicting interests.

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