Impact Of Flexible HRM On Innovation Generation with Work-Related Stress as A Moderator

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Abstract

FHRM offers workers with chances, skills and work drive, which makes the workplace effective and recognize the value of their flexible human resource management. The quantitative method has been applied to collect data from 550 employees of IT firms of Pakistan from which 400 employees responded appropriately and considered for analysis process in which SPSS 28 and Smart PLS .4 analysis tools were used to analyze the data. The findings of the research study discovered that the SKF of employees, and BF of employees positively and significantly influence the innovation generation and HRP flexibility is not significant and showed the weak relationship. In the light of moderation, the work-related stress impacts negatively on the relationship between skill flexibility and innovation generation and it weakens the relationship between both. There is no impact of work-related stress on the relationship between behavioural flexibility and innovation generation but it's positively and low impact of HRP flexibility on innovation generation due to higher work-related stress, it strengthens the impact of HRPF on innovation generation in IT firms.

Keywords: *Skill flexibility, behavioural flexibility, HRP flexibility, Work related stress, Innovation generation, IT firms.*

Introduction

The progressively fierce competition and environmental vulnerability encourage the organizations to make strides their flexibility to respond to the environment and implement flexible management. FHRM refers to a management framework in which an organization gives employees with a set of openings to select when and how to work (Bal & De Lange, 2015) counting flexibility in coordination, capacities and assets. The carrying out to FHRM in companies makes a different progress in worker engagement, work fulfilment and production efficiency (Cordery, Sevastos, Mueller, & Parker, 1993). With the changing outside environment, increasingly organizations realize that the enhancement of person efficiency and the development of the organization depend on motivated and skilled employees. HR flexibility may also help to create an internal culture and atmosphere that promotes and supports the development of new ideas (Herbig & Dunphy, 1998). It signifies to important, firm-specific, and hard-to-imitate organizational capability. In future, It can generate maintainable competitive advantage and improve organizational adequacy (Bhattacharya, Gibson, & Doty, 2005; Wright, Dunford, & Snell, 2001).

Flexibility environment working in adopting things, which develop the competitive edge of the technological firms. One of the most essential elements of organizational flexibility is HRF (human resources flexibility), which emphases to adjust employee's characteristics (such as knowledge, skills, and behaviors) in the direction of varying external conditions of environment. Its nature, components, and possible impact to company success have all been investigated in recent studies (Bhattacharya et al., 2005; Eldridge & Nisar, 2006; Wright & Snell, 1998). Employee skill flexibility, employee behavior flexibility, and HR practice flexibility have been recognized as three different sub-dimensions of HR flexibility (Wright & Snell, 1998). HR flexibility and financial success have been shown to have a substantial and favorable connection empirically (Bhattacharya et al., 2005). It strengthens the financial position and human resources which adjusting the changing environment. FHRM offers workers with chances, skills and work drive, which makes the workplace effective (Wen, Wu, & Long, 2021) recognize the value of their flexible human management system, which can not only increase employee demand for work flexibility but also increase their readiness to work, allowing employees to actively pursue

innovative activities in a flexible and relaxed work environment, thereby promoting enterprise innovation.

The term "innovation generation" refers to the creation of a new product, method, or technology for the market (Dewar & Dutton, 1986). To put it another way, produced innovations are novel to the company and its market. The writers think that fresh information generated through exploration, experimentation, observation, and newness is necessary for the creation of innovation (March, 1991). Market newness can be acquired by companies through the generation of innovations (Damanpour & Daniel Wischnevsky, 2006; Pérez-Luño, Wiklund, & Cabrera, 2011; Prieto-Pastor & Martin-Perez, 2015).

The link between work-related stress and creative behaviour has gotten very little attention. The findings of the scant study that is existing are varied and inconclusive (Byron, Khazanchi, & Nazarian, 2010; De Spiegelaere, Van Gyes, De Witte, Niesen, & Van Hootegem, 2014; Montani, Courcy, & Vandenberghe, 2017; Ren & Zhang, 2015). Stress may either promote or impede creativity and creative behaviour depending on the cause (Ren and Zhang, 2015), it displays as emotions of excessive difficulty, anxiety, tension, annoyance, insecurity, and apprehensions that occur as a result of the responsibilities of a job (Bhui, Dinos, Galant-Miecznikowska, de Jongh, & Stansfeld, 2016).

Problem Statement

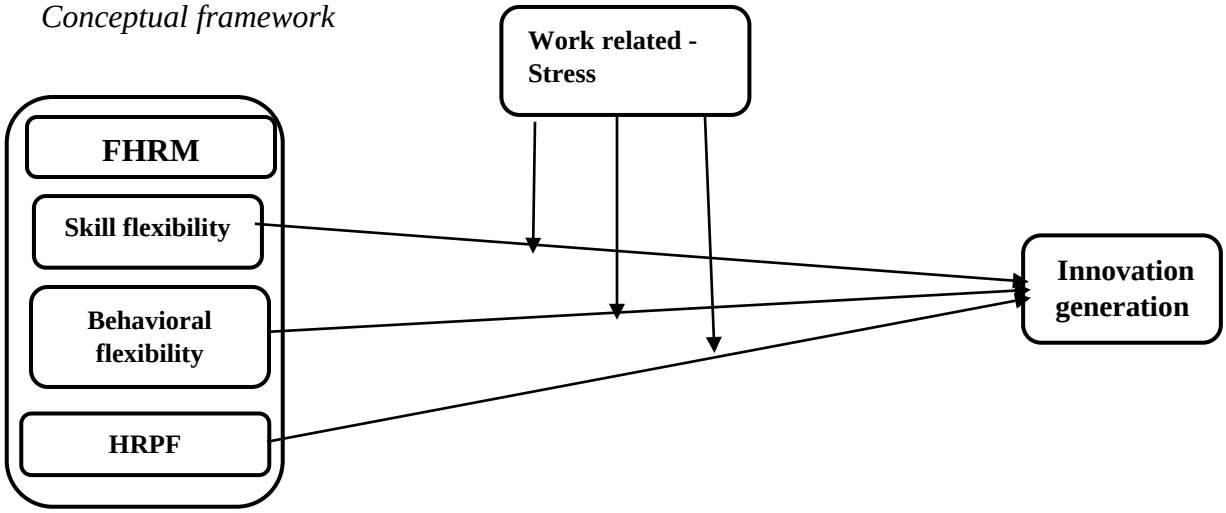
FHRM focuses on increasing the firm's innovativeness, competitiveness, and dynamic adaptability and capacity. They need to compete in a changing environment is the primary motivation for businesses to adopt flexible HRM (Kozica & Kaiser, 2012). Flexible human resource management can fill the uncertainty gap in which a diverse workforce will face environmental changes and fierce competition in the business world, due to uncertain situation, organisation can survive through generating new things in the market in which human resource flexibility is the best and most important option for responding to changes in the corporation's external and internal environment, based on that scenario , the less work related stress will strengthen the relationship of FHRM on innovation generation. Flexible human resources, work-related stress, and innovation generation in the context of environmental changes are the areas where the least study has been done in IT firms of Pakistan.

Research Objectives

The aim of this research is to determine the influence of flexible human resource management on innovation generation using Work-related stress as a moderator in the firms.

1. To identify the relationship between SKF and IG.
2. To identify the relationship between BF and IG
3. To identify the relationship between HRPF and IG
4. To examine the moderating effect of WRS on the relationship between SKF and IG
5. To examine the moderating effect of WRS on the relationship between BF and IG
6. To examine the moderating effect of WRS on the relationship between HRPF and IG

Figure. 1
Conceptual framework



HR practices to take risk, learn new skills and ready for newness is known as flexibility in human resource skills, embracing change and engage not in routine behavior related to BF, and procedures, and practices based on situation of firm and market in the light of innovation that associate to Flexibility in HR practices. WRS whether make hindrance or support the innovation generation. Firms treat WRS as a barrier its weakness the relationship and treat as for innovation it works as strength.

Literature Review

Skill flexibility and Innovation generation

Workers acquire new abilities and skills with easiness refers to skill flexibility and they demonstrate their flexibility in skills in the context of skill and upskills for anticipating the future

skill requirements , or make evident in order to pick up new skills for their work (Arulampalam & Booth, 1998; Dyer & Ericksen, 2006; Pulakos, Arad, Donovan, & Plamondon, 2000). From outside sources of company, the acquisition of knowledge can help to fill this gape to generate innovation. In the context of above environment it develops for generating innovation in the light of smooth way (Grant & Baden-Fuller, 2004). For learning new skills , taking risks , human resource methods offers permission employees and be prepared for such environment is recognized as flexible human resources practices (Woodman, Sawyer, & Griffin, 1993). The SKF will positively strengthen the relationship with IG as the environment changes.

H1: SKF is positively associated to IG

Behavioral flexibility and Innovation generation

Employees to improvise, find innovative solutions, review and evaluate their behaviours, flexible behaviour in HR allows them and from such efforts, they generate and understand the new knowledge regarding product innovation. It enables employees to decrease production and delivery costs and develop new product rather than expensive one inputs ("Snell, Youndt, & Wright (1996 - Google Scholar," n.d.; Youndt et al., n.d.). Flexible human resources emphasizes to boost employee behaviour flexibility and ability to respond to changing environmental needs ("Snell, Youndt, & Wright (1996 - Google Scholar," n.d.; Youndt et al., n.d.). It is identified that a high level of employee behaviour flexibility is busy at taking risks, acceptance of changing and being innovative which are related the non-routine tasks (Bhattacharya et al., 2005). Results and administrators of organisations accept the importance of FHRM, and they understand the flexibility and creativity of employees in changing environment and behaviour of employees.

H2: BF is positively associated to IG

Human resource practices flexibility and Innovation generation

HRP in flexibility is to respond the adjustment in the firm's outside and inside situation of business which shows the significant method. It perquisites as soon as organisations engage to contain advanced the responsibilities of HR practices in flexibility (Veise et al., 2014a). FHRM supports in response to changing environmental needs to increase the functions is the main motivation in the firm. The first-hand research outcomes that clearly indicate the significance of flexible human resources management in the firms and they understand that to be innovative and

flexible practices are possible through HRP flexibility. The policies and practices in the light of human resources flexibility encourages employees to set their working ship, relationships and living and its impact supporting the innovation and contribution of firms, inspiring workers to offer extra work for organisational newness (Roberts, 1988).

H3: HRP flexibility is positively associated to IG

Moderating role of Work-related Stress

It is moderation analysis in which to analyse the moderating role of WRS on the relationship between SF, BF, HPR Flexibility and IG. The consequences of job duties might showing stress due to the anxiety, excessive difficulty, irritation, tension and insecurity (Bhui et al., 2016). Mostly research define the negative impact of job relates stress on workers with psychological and physical consequences. Based on the variety, "stress may either support or constrain creativeness and novel actions." (Ren and Zhang, 2015). It is claimed that work related stress is treated as challenge as closed time limit which may be bring good outcome and on other side it is treated as negative point of view like as interruption, job instability it may be bring negative effect. Flexible employees in the light of variety of skills they learn more new things (Bhattacharya et al., 2005; Wright & Snell, 1998), that leads to the" skills' flexibility" (Maurer et al., 2003). Lower work related Stress brings strengthens between skill flexibility and innovation generation in relationships that is possible in owing to employees' potentiality.. In that point of view, this research study put forward that the moderating role of work-related stress strengthens relationship between the skill flexibility on innovation generation.

H4: The moderating effect of WRS strengthens / weakens the relationship between SKF and IG

Stress displays the negative emotions such as anxiety, depression, irritability, anger, and fear and work-related stress puts positive and negative impact on outcomes. In other words , from one's performance, stress may weaken or strengthen Flexible behaviour of employees allowing to the workforce to come and improve the new thoughts and to generate novel attentions as of those kind of engagements which permits personnel for decreasing distribution, services and producing overheads, and generate fresh advance novelties which reduce or remove costly contributions (Youndt et al., n.d.). The new behavior differences of introduction into a people's behavior gathering through resultant in a modified or new or learnt employee's behavior gives direction

towards novelty (Reader & Laland, 2002). The firm environment encourages system in the less stressful situation for novel creation development when modified or learnt behavior of employees at work occurs. This research study proposes that moderating role of less work-related stress make stronger the impact of behavioural flexibility of employees on innovation generation.

H5: The moderating effect of WRS strengthens / weakens the relationship between BF and IG

Employees' flexible schedules provide a less stressful work environment. One way that human resource managers can assist their staff is to make their everyday schedules easier and allowing for more flexible employment arrangements, for example in recruitment, selection, redesigning jobs, trainings and compensation and working hours for creative work such as for technological firms that they may bound to guide employee and feel less stress at work, and they can be innovative for firm. In lowering stress, flexible work schedules and work arrangements are also beneficial. It will be much easier to go to work if you follow these guidelines. Flexible working hours, part-time scheduling, and job sharing are examples of these systems. Employees may benefit from these programs if they want to preserve a work-life balance. Some workers operate more efficiently at home than they do at work. Workplace stress will be reduced because of flexible schedules that allow for such flexibility with which may support in generating innovation. This research argues that the lower the work-related stress makes the stronger impact of flexible human resources practices on innovation generation.

H6: The moderating effect of WRS strengthens / weakens the relationship between HRP flexibility and IG

Research Methodology

This research study is based on quantitative nature and collected data from those who are working in IT firms across different cities in Pakistan, namely Karachi, Lahore, Peshawar, and Quetta. They are actively engaged in the research process. The reason for selecting personnel from diverse IT companies was to generalize the study's findings to different IT company environments. However, reaching the targeted population posed challenges due to information and access restrictions. Consequently, data was gathered through online surveys and in-person visits. Potential participants were approached and informed regarding the objectives of study

through both personal and professional connections. Upon their agreement to participate, they were provided with a QR code and survey link sent via WhatsApp and email. A total of 550 potential respondents were contacted for this survey. Subsequently, 400 individuals (72.54%) who completed the survey and remained in attracted attention.

Measures

Skill Flexibility: this research study assessed SKF as an independent variable by investigating the impact on the innovation generation. For SKF variable, 4-items adapted from the research of Bhattacharya et al. (2005) with slight modification to measure the SF of the IT firms of Pakistan. A sample item is "Our Company can move employees to different jobs to support the generation of new ideas."

Behavioral Flexibility: In this research study, BF variable assessed with the 3-items adapted conducted by Bhattacharya et al. (2005) with slight modifications to measure IT employees of BF. A sample item is "The work habit of our employees is flexible to adapt the market demands in changing situation."

Human Resource Practices flexibility: The scale of human resource practices flexibility measured with 5-items and adapted 3 Items from Bhattacharya et al. (2005) and 2 items from Ngo, H. Y., & Loi, R. (2008). A sample item was "Our firm HR practices are adaptable to changing demands of the market, allowing us to generate or adopt new products."

Work-relates Stress: The items of variable were adapted from a study by Sosik and Godshalk (2000) in which four items determine the extent to which respondents experienced work-related stress during their working. A sample of scale is" My experience distresses in my job".

The innovation generation is dependent variables in this study and their scale will be adapted from "Pérez-Luno etal. (2014). originally these items appeared in the definitions of studies conducted by M. Dost, et.al (2016), Zheng Zhou (2006), and Lieberman and Montgomery (1998)". A sample of scale is "We generate ideas for new product development in-house". All items are scored on a five-point Likert scale ranging from 1= strongly disagree and to 5 = strongly agree.

Data Analysis

This section will describe how to evaluate the quality of reflective measurement model estimated by PLS-SEM, both in terms of reliability and validity. In evaluating the reliability, measure the indicator level (individual indicator reliability) and a construct level (internal consistency

reliability). Validity assessment focuses on each measure's convergent validity using the average variance extracted (AVG). Moreover, the Heterotrait-monotrait (HTMT) ratio of correlations allows to assess a reflectively measured construct's discriminate validity in comparison with other Construct measures in the same model.

Table 1
Internal Consistency Reliability

The degree to which each item in the correlation matrix corresponds with the specified principal component called factor loading in the internal consistency. Factor loadings can have values between -1.0 and +1.0. Greater correlation between the item and the underlying component is shown by larger absolute values (Pett et al., 2003, P, 299). Factor loading for each component in the research investigation was above the suggested threshold of.50 (Hair et al., 2016). Therefore, nothing further was taken out. Factors loadings are presented to table 1.

The results of Cronbach alpha (A) and composite relatability (CR) showed in the Table. The range of CR from .897 to 924 and Alpha from .735 to .900 started. In both indicators, .70 is the main threshold to establish the construct relatability stated by (Hair et al, 2016). Henceforth, the

Measurement model evaluation Constructs	Factor Loadings	AVE	CR	A
	0.771			
Behavioural flexibility (BF)	0.833	0.653	0.849	0.735
	0.818			
	0.893			
	0.729			
Human resource practices flexibility (HRP)	0.885	0.670	0.924	0.900
	0.831			
	0.790			
	0.771			
Innovation generation (IG)	0.788	0.704	0.877	0.789
	0.876			
	0.850			
	0.889			
Skill flexibility (SKF)	0.849	0.727	0.914	0.875
	0.842			
	0.829			
	0.790			
Work related stress (WRS)	0.871	0.687	0.897	0.847
	0.879			
	0.771			

result of establishment of reliability is shown in above table.

Researchers look at the average variance extracted (AVE) and the outer loadings of the indicators to determine convergent validity. As a rule, each indicator's instability should be largely (typically at least 50%) explained by a latent variable. This indicates that since the number squared (0.7082) equals 0.5, the outer loading of an indicator should be more than 0.708. The recommended threshold of AVE value is equal or higher than .50. Convergent validity is established, and it demonstrates that the items cover to measure the essential construct (fornel &

larcker, 1983). Convergent validity results on the AVE statistics in the current study show that all the constructs have AVE over .50. Hence, convergent validity is not to issue. Table shows the AVE for each of the constructs.

Discriminate validity

The degree to which an empirical standard allows a construct to be really distinguished from other constructs is known as discriminant validity. Therefore, proving discriminant validity requires that a concept be distinct and captured phenomena that other constructs in the model do not describe. Historically, scholars have based their discriminant validity on two measurements. When evaluating the indicators' discriminant validity, cross-loadings are usually the first method used. An indicator's outer loading on the related concept needs to be larger than any cross-loadings it has on other constructs (i.e., correlations).

Table 2

Cross loadings

	BF	HRPF	IG	SKF	WRS	WRS x HRPF	WRS x BF	WRS x SKF
BF1	0.771	0.480	0.512	0.379	0.422	-0.088	-0.149	-0.092
BF2	0.833	0.628	0.500	0.468	0.377	-0.122	-0.155	-0.148
BF3	0.818	0.654	0.620	0.528	0.469	-0.179	-0.162	-0.065
HRPF1	0.576	0.893	0.481	0.623	0.447	-0.234	-0.220	-0.150
HRPF2	0.619	0.729	0.452	0.540	0.565	-0.142	-0.155	-0.032
HRPF3	0.568	0.885	0.468	0.612	0.450	-0.241	-0.223	-0.160
HRPF4	0.505	0.831	0.410	0.535	0.399	-0.224	-0.182	-0.115
HRPF5	0.662	0.790	0.520	0.572	0.518	-0.124	-0.048	-0.133
HRPF6	0.636	0.771	0.486	0.551	0.493	-0.068	-0.004	-0.105
IG1	0.518	0.466	0.788	0.402	0.494	-0.047	-0.102	-0.044
IG2	0.600	0.493	0.876	0.450	0.334	-0.057	-0.039	-0.083
IG3	0.590	0.495	0.850	0.490	0.361	-0.032	-0.048	-0.123
SF1	0.471	0.587	0.503	0.889	0.336	-0.109	-0.135	-0.149
SF2	0.513	0.656	0.437	0.849	0.412	-0.204	-0.162	-0.180
SF3	0.490	0.583	0.441	0.842	0.450	-0.126	-0.120	-0.193
SF4	0.484	0.573	0.438	0.829	0.401	-0.059	-0.006	-0.144
WRS1	0.505	0.474	0.426	0.316	0.790	-0.056	0.053	-0.027
WRS2	0.413	0.505	0.365	0.420	0.871	-0.076	-0.024	-0.023
WRS3	0.434	0.547	0.395	0.434	0.879	-0.113	-0.055	-0.055
WRS4	0.380	0.419	0.356	0.380	0.771	-0.061	0.000	0.000
WRS x BF	-0.193	-0.166	-0.074	-0.125	-0.006	0.813	1.000	0.694

WRS x HRPF	-0.165	-0.208	-0.054	-0.145	-0.093	1.000	0.813	0.781
WRS x SF	-0.122	-0.143	-0.101	-0.195	-0.033	0.781	0.694	1.000

Heterotrait-monotrait ratio (HTMT) Discriminate Validity

The estimation of correlation between the constructs related to HTMT. The criteria of HTMT ratio established the discriminate validity. Though, the threshold of HTMT is discussed in the establishing of discriminate validity; the threshold .85 or less suggested by Kiline (2011), whereas .90 less threshold recommended by Teo (2008). The HTMT results show Table (4) that HTMT ratio for less than required threshold of .90.

Table.3

Constructs	**BF**	**HRPF**	**IG**	**SKF**	**WRS**	**WRS x HRPF**	**WRS x BF**	**WRS x SKF**
BF								
HRPF	0.888							
IG	0.882	0.683						
SKF	0.709	0.791	0.641					
WRS	0.657	0.669	0.575	0.547				
WRS x HRPF	0.187	0.222	0.061	0.156	0.101			
WRS x BF	0.224	0.179	0.084	0.133	0.043	0.813		
WRS x SKF	0.147	0.150	0.112	0.209	0.035	0.781	0.694	

The Criterion of Fornell-Larcker in which each construct's square root of the AVE should be greater than its highest correlation with any other construct (Fornell and Larscker, 1981). In the following table, the criterion of fornell –larscker showed that the discriminated validity in which the below table demonstrates that the study model's value is less than 0.5 thresholds, indicating that the discriminate validity established.

Table.4

Evaluation of Discriminate Fornell-Larcker criterion

Constructs	BF	HRPF	IG	SKF	WRS
BF	**0.808**				
HRPF	0.732	**0.818**			
IG	0.680	0.578	**0.839**		
SF	0.573	0.702	0.535	**0.853**	
WRS	0.527	0.589	0.468	0.466	**0.829**

According to Hair et al. (2022) the path between formative and reflective constructs should ideally have a magnitude of 0.80, but at least 0.70 and above. This corresponds to an R2 value of 0.64—or at least 0.50. In the below figure, the magnitude of reflective constructs is less than 0.64 and above .50 is also acceptable.

The results of the path analysis using SmartPLS indicate a number of important relationships between the independent variables and the dependent variable, IG. These relationships are as follows: the path coefficient from BF to IG is 0.510, which indicates a strong positive effect, meaning that as BF increases, IG also increases significantly. This relationship is the most significant of all the paths analysed. On the other hand, the path coefficient from HRPF to IG is 0.047, which indicates a very weak positive relationship, meaning that HRPF has a minimal impact on IG and that this relationship is not statistically significant. Similarly, SKF has a moderate positive effect on IG with a path coefficient of 0.158, indicating that SKF contributes to the increase in IG.

With a path coefficient of 0.111, the effect of WRS on IG indicates a marginally positive association, suggesting that WRS has a small but meaningful impact on IG. The interaction between WRS and HRPF on IG has a moderately positive coefficient of 0.153 when interaction effects are examined, indicating that the combined effect of WRS and HRPF significantly boosts IG. However, the interaction between BF and WRS has a very little positive effect (coefficient of 0.004), suggesting that their combined impact on IG is essentially non-existent. It is interesting to note that greater levels of WRS paired with SKF appear to marginally diminish IG, as indicated by the interaction between the two variables, which provides a negative path coefficient of -0.118, indicating a weak negative effect.

Table. 5
Path coefficients

Mean, STDEV, T values, p values

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
SF -> IG	0.158	0.156	0.062	2.553	0.011
BF -> IG	0.510	0.513	0.055	9.292	0.000
HRPF -> IG	0.047	0.047	0.071	0.653	0.514
WRS x SF -> IG	-0.118	-0.114	0.053	2.228	0.026
WRS x BF -> IG	0.004	0.001	0.064	0.057	0.955

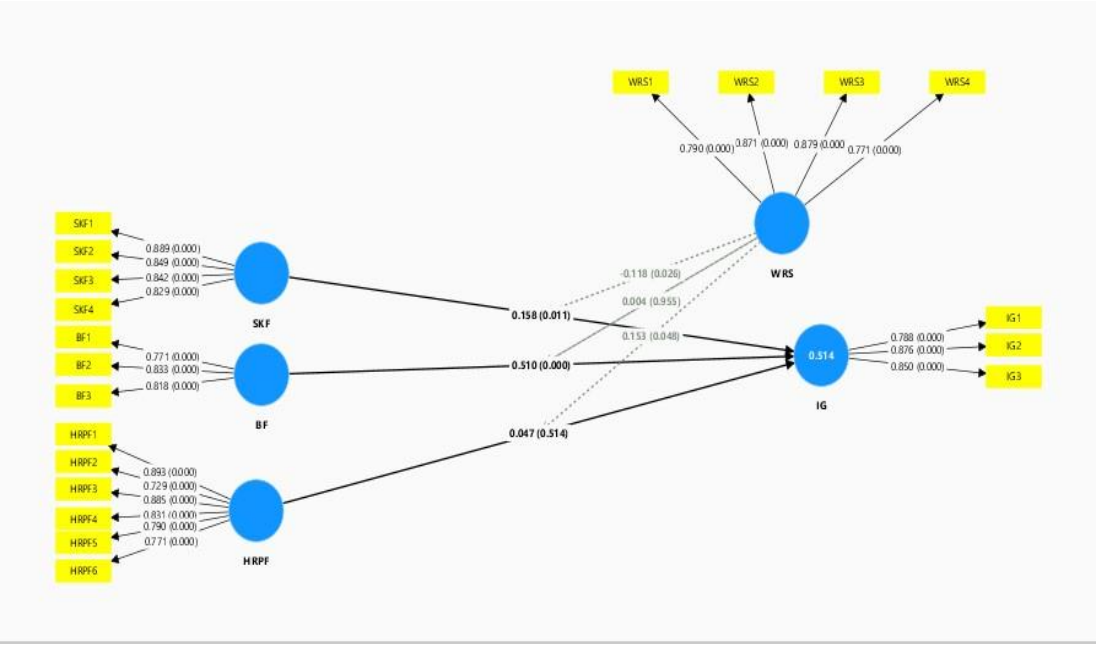
WRS x HRPF -> IG	0.153	0.151	0.077	1.978	0.048

The Smart PLS path analysis shows numerous significant associations between the dependent variable (IG) and the independent variables (BF, HRPF, SF, and WRS). With a p-value of 0.000 and a t-value of 9.292, the path coefficient from BF to IG is 0.510. This shows that BF has a strong and statistically significant positive effect on IG, indicating that IG grows significantly as BF increases. However, there is a very small and statistically negligible influence of HRPF on IG, as revealed by the path coefficient from HRPF to IG of 0.047, t-value of 0.653, and p-value of 0.514. This implies that there is not an apparent impact of HRPF on IG. The t-value is 2.553, the p-value is 0.011, and the SKF to IG path coefficient is 0.158. The statistical significance of this modest positive effect suggests a correlation between increases in SKF and increases in IG.

Moderating effect

The moderating effect of WRS on the associations between the independent variables (BF, HRPF, and SKF) and the dependent variable (IG) is examined by the SmartPLS path analysis. The path coefficient for the interaction term WRS x HRPF is 0.153, t-value is 1.978, and p-value is 0.048. This shows a statistically significant and moderately positive effect, indicating that the presence of WRS strengthens the beneficial effects of HRPF on IG. Put differently, the impact of HRPF on IG is more noticeable when WRS is high. With a path coefficient of 0.004, a t-value of 0.057, and a p-value of 0.955, the interaction term WRS x BF is statistically insignificant and has a minor impact. This implies that WRS has little effect on IG and that the link between BF and IG is not considerably affected by WRS. In contrast, the interaction term WRS x SKF results in a t-value of 2.228 and a p-value of 0.026, along with a negative path coefficient of -0.118. This shows a statistically significant but weakly negative effect, indicating that the beneficial effect of SKF on IG is lessened when WRS is present. The beneficial impact of SKF on IG is lessened when WRS is strong, suggesting a damping effect.

Figure 1



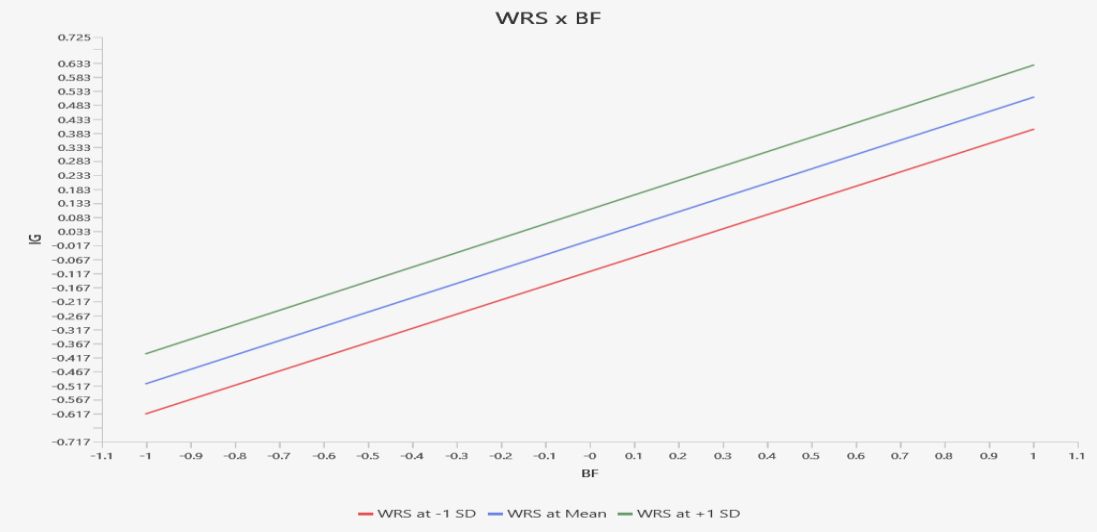
Slope Analysis

The benefits of SKF on IG are lessened by WRS. SKF's beneficial effect on IG is diminished when WRS is strong. Indicating that WRS reduces the impact of SKF on IG, this association is statistically significant. Path Coefficient: -0.118 indicates a negative relationship between SKF and IG when moderated by WRS. T-value: 2.228 is greater than 1.96, indicating statistical significance. P-value: 0.026 is below 0.05, indicating statistical significance. High WRS defined When WRS is high, the negative interaction effect between SKF and IG strengthens and supports a steeper negative slope. Consequently, the positive impact of SKF on IG diminishes further in high-work related stress. The analysis confirms that high levels of Work-Related Stress (WRS) weaken the positive relationship between Skill Flexibility (SKF) and Innovation Generation (IG), while low levels of WRS allow SKF to have a stronger positive impact on IG. It revealed that Work-Related Stress (WRS) and Skill Flexibility (SKF) has a negative moderating effect on Innovation Generation (IG) and in the context of the moderation effect, high WRS weakens the positive effect of SKF on IG, while low WRS improves it.

Figure 2

The path coefficient (0.004) is very close to zero, indicating that the interaction effect between Work-Related Stress (WRS) and Behavioral Flexibility (BF) has a negligible effect on Innovation Generation (IG). The p-value is very high (0.955), indicating that the interaction effect is not statistically significant. Slope Analysis is given non-significant interaction effect in which high WRS: Supports a relatively flat slope, indicating that the positive impact of BF on IG remains unchanged in high-and low work relates stress environments and indicating that the positive impact of BF on IG remains unchanged in both levels of work-related stress environments. In nearly parallel lines indicating no significant change in the relationship and not impact the relationship between BF and IG. Therefore, both low and high levels of WRS do not influence the effectiveness of BF in promoting innovation product.

Figure 3



Slope Analysis is given the significant interaction effect in which Low WRS showed that When WRS is low, it supports the positive slope and positive interaction effect between WRS and HRPF suggests that the positive impact of HRPF on IG is less pronounced. Therefore, HRPF has

a moderate positive effect on IG in low-work related stress environments. In the context of High WRS, it supports a steeper positive slope and the positive interaction effect between WRS and HRPF strengthens, indicating that the positive impact of HRPF on IG becomes stronger.

Figure. 4

Therefore, HRPF has a more significant positive effect on IG in high-work related stress environment. The analysis suggests that Work-Related Stress (WRS) moderates the relationship between Human Resource Practices Flexibility (HRPF) and Innovation Generation (IG). High levels of WRS strengthen the positive relationship between HRPF and IG, while low levels of WRS have a less pronounced effect. Therefore, the effectiveness of HRPF in promoting innovation is influenced by the level of high WRS in the firms.

Conclusion

This research study investigated the relationship between FHRM and IG along with moderating role of WRS in the developing markets of IT firms. Researcher analysed the hypothesized relationship with data received from staff of IT firms who involved in decision of human resource management and innovation production.

The first step was to examine the impact of SKF, BF, and HRPF on IG. In the relationship between SKF and innovation generation, SKF improves an organization's ability to generate, and implement new ideas, hence it is crucial to the relationship between SKF and IG in a changing environment. An atmosphere that is dynamic and supportive of innovation generation is fostered by skill flexibility, which is defined as the capacity to apply a broad range of skills to a variety of jobs. Workers can approach issues from a variety of positions, which improves their ability to come up with original ideas and solve problems creatively (Kim & Park, 2020). , According to

Smith et al. (2019), companies that foster skill flexibility are more equipped to the production market and technological improvements, which guarantees ongoing improvement and a competitive edge in a changing environment. It was determined the effects of BF on IG where the path was significant and indicates BF positively and significantly effects on innovation generation. Thus, Behavioral flexibility facilitates productive teamwork across varied groups and fosters an environment and original problem-solving, both of which are necessary for long-term innovation (Wang et al., 2022).

In today's organizational structure, the relationship between human resource (HR) practices flexibility and innovation in the firm is critical since innovative environments are fostered by flexible HR methods. Flexible HR policies and procedures, such as recruiting, telecommuting, flexible work schedules, individualized career development, boost employee motivation and happiness are worked. Furthermore, the research also tried to find out whether HRPF affects IG. As predicated, the path significant and positive was found. This result displays that HRP flexibility impact significantly on the innovation generation. Thus, HRPF did support because the result is-significant and less than .5. This study revealed a significant and positive relationship of SKF, BF, and HRPF on positively and significantly and it indicates that ability of employees of IT firms to generate ideas and produce innovative products.

The second step of this research study is to investigate the moderating role of work-related Stress between FHRM and innovation generation in the context of strengthening or weakening relationship from which SKF increases the impact on innovation generation when work related stress keeps weak relationship. Individuals with high skill flexibility are more skilful at overcoming obstacles and using their variety skill sets to produce creative ideas and solutions when they are under little stress at work. In this case, people can successfully try out new approaches, which strengthens the favourable impact of skill flexibility on innovation generation. On the other hand, under instances of elevated work-related stress, the correlation between skill flexibility and innovation generation may attenuate or even invert. High levels of stress can impede people's ability to think clearly, be creative, and make the best use of their abilities. It was concluded that moderating effect of WRS significantly but impacted negatively on innovation generation and it weakens the relationship between SF and IG. Innovation in companies requires behavioural flexibility, which is defined as the capacity to modify plans and tactics in response to evolving conditions. It empowers people to investigate novel concepts, test

out various strategies, and produce original solutions to issues. Further, in the light of moderating effect of work related stress between BF and IG; the path was significant found, It was concluded that there was no moderation effect of WRS between BF and IG found that showed weak relationship and non-significant The moderating role of work related stress between behavioural flexibility and the development of innovation is essential to understanding how people contribute to innovation and overcome organizational problems. WRS's moderating effect on human resource (HR) practices flexibility to understand how business practices and people' well-being cross to promote innovation requires flexibility and innovation generation. Flexibility in HR practices is the ability of HR policies and processes to change and adapt to the changing needs of the organization and its workforce. On the other side, innovation generation includes producing new concepts, procedures, or goods that improve the organization or address issues. Flexibility in HR procedures have a big impact on how people feel about their jobs, how they behave, and how they think about it all, which influences how innovative they can be. Flexible HR strategies can improve workers' job happiness, engagement, and sense of purpose. Examples of these practices include flexible work schedules, opportunities for training and development, and performance feedback systems to promote the supportive role fostering innovation. Additionally, the researcher tried to figure out the role that WRS played in moderating relationship between HRPF and IG; the path was found significant, it was determined that moderating effect of WRS between HRPF and IG positively and significantly found. It showed that HRP flexibility increases impact on IG when work related stress is going to be high and strengthened the relationship of work-related stress between HRPF and IG.

Limitations and Future Research

A few limitations of this research study and there are opportunities to address for future researchers. First, for emerging the markets of IT firms, the data is limited. Consequently, the research findings might have inadequate applicability towards added recognized markets. Therefore, to generalize the findings, future research could examine this model in reputable economies. Second, the analysis of research was inadequate to SKF, BF and HRPF with IG variables. For the Future researchers, they might be investigated the impact of FHRM in the context of SK, BF and HRPF with the process of innovation generation and adoption. This research study will assist to comprehend how methods of production within firm developed as well as got outside impact of flexibility in human resource management on product innovation

strengthen or weaken. Third, this study related with the moderation of Work-related stress which showed the relationship of SKF, BF, HRPF and IG. The researchers in future may examine the moderating role of innovative culture to analyse the results.

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