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The Impact of High-Performance Work System, High-Performance Organisational Culture, and Innovative Work Behaviour on High-Performance Organisation

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ABSTRACT

This paper examines the impact of three key organisational factors, High-Performance Work System (HPWS), High-Performance Organisational Culture (HPOC), and Innovative Work Behaviour (IWB) on the overall performance of organisations. Anchored in the Resource-Based View (RBV), the study analyses how these variables individually and collectively influence High-Performance Organisation (HPO) outcomes. Using empirical data from software development firms in Pakistan, this paper identifies the critical roles of strategic HR practices, strong performance-driven culture, and innovative employee behaviour in enhancing organisational performance.

INTRODUCTION

High-Performance Organisations (HPOs) have become increasingly relevant in modern business discourse due to the demand for sustainable competitive advantage and operational excellence. HPOs are defined as organisations that outperform their peers consistently over time in both financial and non-financial dimensions by strategically aligning their internal systems, capabilities, and people practices (De Waal & Heijtel, 2017; Iqbal, 2022). In the era of digital transformation and globalisation, organisations must rely not only on technological infrastructure but also on intangible assets such as human capital, culture, and innovation to survive and thrive.

Three critical drivers of high performance are High-Performance Work Systems (HPWS), High-Performance Organisational Culture (HPOC), and Innovative Work Behaviour (IWB). HPWS is a bundle of interrelated human resource practices such as employee training, participative decision-making, and performance-based rewards—designed to enhance employee capabilities and commitment (Iqbal, 2022; Karadas & Karatepe, 2019). HPOC, on the other hand, reflects the underlying values and norms that promote excellence, employee engagement, accountability, and continuous improvement within the organisation (Rheeder, 2014; Iqbal, 2022). Innovative Work Behaviour (IWB) is the process through which employees identify opportunities, generate ideas, and implement creative solutions that contribute to the organisation's success (Feirong, 2015; Iqbal, 2022).

In developing economies like Pakistan, particularly in the information technology (IT) and software development sector, the need for these drivers is paramount. According to Iqbal (2022), Pakistani software firms suffer from poor managerial practices, a lack of innovation, weak HR systems, disengaged employees, and cultural resistance to change factors that hinder their performance in international markets. Despite efforts from the Pakistan Software Export Board (PSEB) to promote IT exports, many firms remain locally focused, under performing in terms of productivity, innovation, and quality when compared to global counterparts.

Moreover, while HPWS and IWB have shown promise in prior studies, their isolated application may not produce optimal outcomes. The study highlights the need to consider these factors in conjunction with HPOC to better understand how they synergistically influence organisational performance (Iqbal, 2022). Additionally, theories such as the Resource-Based View (RBV) provide the theoretical lens to understand how internal resources and reciprocal relationships can transform routine organisations into high-performing ones (Barrick et al.,

2015; De Waal, 2018).

PROBLEM STATEMENT

Despite the theoretical and empirical importance of high-performance work system (hpws), high-performance organisational culture (HPOC), and innovative work behaviour (IWB), many software development firms in Pakistan have failed to fully capitalise on these elements. As reported by Iqbal (2022), issues such as inadequate HR practices, low employee morale, limited innovation, organisational politics, and poor cultural alignment continue to plague the sector. This under performance persists despite the growing recognition of the IT industry as a driver of economic growth and government efforts to enhance global competitiveness through digital transformation.

The gap between potential and performance in these firms raises several concerns. First, existing studies on HPWS, HPOC, and IWB have often treated these variables in isolation, without examining their combined effect on organisational outcomes. This piecemeal approach limits our understanding of how these elements interact to produce high performance (Iqbal, 2022). Second, while HPWS and IWB are believed to be valuable tools for performance improvement, the literature presents mixed results about their direct relationship with organisational outcomes, suggesting that mediating or contextual variables may be critical (Jensen et al., 2011; Gambi et al., 2015). Lastly, most empirical evidence in this area stems from developed countries, leaving a significant gap in understanding how these variables function in the context of developing nations like Pakistan, where organisational culture, resource constraints, and employee dynamics differ significantly.

Given these limitations, this study seeks to fill the gap by exploring the combined impact of HPWS, HPOC, and IWB on High-Performance Organisations (HPOs) in Pakistan's software industry. By integrating these three factors into a comprehensive model, the research aims to provide a clearer and more contextually relevant understanding of what drives organisational excellence in a developing market context.

RESEARCH OBJECTIVES

1. To examine the relationship between High-Performance Work System (HPWS) and High-Performance Organisation (HPO).
2. To evaluate the effect of High-Performance Organisational Culture (HPOC) on High-Performance Organisation (HPO).
3. To determine the impact of Innovative Work Behaviour (IWB) on High-Performance

Organisation (HPO).

LITERATURE REVIEW

The literature review provides details regarding the research framework and how it is underpinned by the Resource-Based View (RBV) and Social Exchange Theory (SET). Additionally, it individually discusses the hypotheses among the variables under study.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

THE RESOURCE-BASED VIEW (RBV)

Organisational success depends on the unique resources of the firms as (RBV) clarifies how organisational performance would be influenced by these resources. Organisations can take and maintain competitive benefits successfully by the efficient application of organisational resources (Barney, 1991, 2001). RBV was first associated with the work of Edith Penrose in 1959. It is most common with the work of (Barney, 1991, 2001; 2001; Grant, 1991; Rumelt, 1991; Vatne, 1995). RBV argued that firms will achieve high performance when they acquire resources, which are uncommon, worthful, unique, and un-substitutable (Barney, 1991).

RBV underpinned the research framework of this study and direct the researcher to explain the constructs in this study. RBV was identified because is the best suitable theoretical framework for addressing performance shortcomings (Barney, 1991, 2001). And also support that uncommon, unique, and nonidentical resource capabilities can present a highly competitive benefit for an organisation over other organisations (Barney, 1991, 2001; Bowman & Toms, 2010; Newbert, 2007; Schroeder et al., 2002). Studies on RBV argued that organisations' internal capabilities give organisations a competitive advantage (Barney, 1991). Such that firms that address environmental difficulty with certain valuable resources, and take advantage of opportunities, achieve better performance. Concerning the view of RBV, it becomes an organisational great capability when qualified employees bring proficient expertise which helps in terms of cost minimization and improved innovation in order to access technical resources and information as well as a competitive advantage. Proper application and utilization of resources enables knowledge-intensive firms to reduce innovation process obstacles and leads to innovative performance improvements (Gupta et al., 2009).

Besides, RBV was also applauded as one of the most extensively acceptable theoretical underlying standards for linking causes (e.g. resource) and effects performance (Hinterhuber, 2013; Rouse & Daellenbach, 2002). It provides the understanding of why some organisations outperform others within the same industry (Schroeder et al., 2002) and strengthens

organisations to reorganize their sets of practices accordingly to environmental fluctuations (Zott, 2003).

Theoretically, the link between HPWS, HPOC, IWB, and high-performance organisation is related to building unique resources and developing organisational competencies which will make the organisation different from competitors. The theoretical logic supporting this idea is that HPWS practices should be unique, uncommon, and inimitable for an organisation to achieve high performance (Bowman & Toms, 2010; Newbert, 2007). Since HPWS successfully elicits effective performance, the combination of the practices will create a valuable, scarce, and matchless competitive advantage for a firm. The competitive advantage can be maintained if rivals are unable to understand and duplicate this strategy (Barney & Arikan, 2001). Therefore, managers should be encouraged to engage in the complex task of building dynamic capability in order to facilitate competitive survival. Thus, once an organisation understands how to make use of these resources, the implementation follows automatically and such will earn more than normal return (Barney, 2001).

Moreover, for an organisation to achieve and sustain high performance, its culture should be rare, inimitable, and should not be duplicated by other organisations (Lee & Yu, 2004). The organisation's high-performance culture can only serve as a source of sustainable competitive advantage. Similarly, Lee and Yu (2004) argued that organisational culture is rare to sustain superior performance, only if it has the characteristics that cannot be imitated by the culture of other large numbers of organisations, if not so, competitors can without difficulty modify an important component of their culture to duplicate that success.

RBV provides theoretical support that simplifies and helps to understand the connection between firm performance and IWB by utilizing the core features of the firm to explicate the relationship among firm greater performance and strategy (Damanpour et al., 2009; Guieu et al., 2010). As RBV claims, organisations will achieve superior performance if they have unique resources and specific skills or behaviours to maintain a competitive edge (Camisón & Villar, 2014). By following the RBV theoretical guidelines Spillan and Parnell (2006) argue that organisational success or failure is considered the consequence of its resources being used particularly its human resources. Human resources would be included in terms of organisation employees and managers their experiences, skills, innovativeness, and knowledge. (Makadok, 2001).

RELATIONSHIP BETWEEN HPWS AND HPO

A high-performance work system refers to the bundle of HR practices that enhance the organisational performance by increasing employees' ability, motivation, and opportunity to contribute (Rabl et al., 2014). Implementation of a specified set of work practices, i.e. high-performance work system, is beneficial for all types of organisations in terms of higher performance (Ferreira et al., 2012; Huselid, 1995).

According to Godard and Delaney (2000) and, Kalleberg et al. (2006) HPWS have the ability to enhance both competitive advantage and superior organisational performance. Besides, Armstrong et al. (2010) conducted an empirical research survey in the labor market in the Republic of Ireland, 241 companies participated in the survey research findings confirmed a significant positive link between HPWS and higher firm performance. Similarly, Chow (2005) conducted an empirical study in three different Asian economies on 107 companies and human resource professionals/managers and experts were contacted to seek their participation in the project. The sample consisted of 27 Hong Kong firms, 45 Korean firms, and 35 Malaysian firms in different industries. Represented industries included banking/financial sector, insurance, hotel, health care, retail, oil and natural gas, vehicle manufacturing parts, metal transportations, management consulting services, electronics, and telecommunications results reported a strong connection between HPWS and higher firm performance. Moreover, the impact of HPWSs on higher firm performance has been investigated by a number of other researchers in a variety of settings, such as in steel mills (Berg, 1999; Ichniowski et al., 1997), automobile assembly plants (MacDuffie, 1995), manufacturing firms (Ichniowski, 1990), Fortune 1000 companies (Lawler et al., 1995), and publicly held firms in all major industries (Huselid, 1995). These studies also revealed positive correlations between high-performance work system and both productivity and financial performance.

Since prior researches have established that an association exists between HPWS and organisational performance, logically, it is assumed in the present study that HPWS will affect the attainment of high performance. Finally, the RBV also supported the research assumption that HPWS has a strong effect on the achievement of HPO by recognizing and acquiring the resources that are significant to the development of required products and services (Barney, 1991; 2001; Bowman & Toms, 2010). As such, the RBV is most distinguished in organisational researches for its fundamental assumption that high performance is achievable via the organisation's ability to stabilize the relationship with its employees through HPWS (Barney &

Arikan, 2001). In light of the preceding discussion, the following hypothesis is proposed to realize the first objective:

H1: HPWS is positively related to HPO.

RELATIONSHIP BETWEEN HPOC AND HPO

Lee and Yu (2004) examined 70 Singaporean companies and reported strong culture influences various positive organisational procedures and performance. Similarly, Valencia et al. (2016) reported in Spanish companies organisational culture is a strong organisational performance predictor. A study by Leithy (2017) asserted that organisational culture is an important resource for firms and positively impacts overall firm performance. In the same vein, Denison and Mishra (1995) in a study of 760 US firms observed strong organisational culture consisting of mission, adaptability, consistency, and involvement have significant positive effects on better organisational performance.

Similarly, Kontoghiorghes (2016) conducted a study in the automotive supply chain industry operating in the south-western United States, 897 managerial level staff participated in the survey, results concluded that high-performance organisational culture when strategically aligned, successfully attracts talent and helps to retain them, increases workers' commitment and leads to high performance. Moreover, HPOC provides a firm with its single best weapon: the competitive benefit that drives the organisation, defines its actions, and shapes its avenue to success, a finely improved performance culture affects positively throughout all capacities (Smartmind, 2019).

Furthermore, Lapshun, (2020) conducted a qualitative study in a global high-tech 100 IT corporations in Singapore managerial level staff participated in the study. Study results showed that for firms that high-performance organisational culture is fundamental for achieving sustainable competitive advantage and higher performance, sustaining high-performance organisational culture may contribute to social change by creating more growth opportunities, adding jobs, and providing help for communities.

Graham et al. (2016) researched 1,348 North American equity firms in an attempt to understand whether organisational culture matters and to which degree differences in culture could explain the differences in performance. Among executives Graham et al. (2016) surveyed, only 16% believed that the culture of their organisation is where it should be, and 92% acknowledged that improvement in cultural norms would increase their companies' value and performance.

Schein (2010) stated that cultural growth and strength depend on the past development of the company itself. Therefore, it is extremely difficult for an external competitor to find what the valuable resource really is. Strong organisational culture is highly difficult to imitate (Fitzgerald, 1988; Mueller, 1996), because of its understood norms, complexity, and preciseness (Chan et al., 2004; Lippman & Rumelt, 1982). In addition, a resource-based theory proposed two reasons why a high-performance organisational culture may be extraordinarily hard to imitate. First, strong cultures are casually ambiguous. Second, cultural norms and values are subject to path dependency. Consequently, based on the above discussion and past research findings that high-performance organisational culture has a direct influence on achieving high-performance subsequent hypothesis is proposed:

H2: High-performance organisational culture is positively related to HPO.

RELATIONSHIP BETWEEN IWB AND HPO

Dorenbosch et al. (2005) Stressed the improvement of responsiveness, flexibility, and efficiency for organisational performance. As organisations need to respond to changing business atmosphere and global competition (Reuvers et al., 2008). Continuous innovation for products, services, internal processes, and behaviours has become a necessity. In order to overcome this issue, past research has focused on innovation rather than efficiency and stressed how individual efforts can be utilized for organisational performance and innovativeness (Bilton & Cummings, 2010; Isaksen & Ekvall, 2010).

An empirical study conducted on Malaysian public listed companies 202 managers of the respective companies participated in the survey results revealed that innovative work behaviour helps organisations in achieving competitive advantage and higher performance (Shanker et al., 2017). Similarly, Morales et al. (2008) investigated 408 Spanish organisations and found innovation is essential for improved organisational performance and they showed that organisations which focus on creative employees' innovation are more successful at securing a larger market share which can lead to high income and profitability.

Moreover, Stierand and Dörfler (2012) investigated 18 top chefs from the UK, Spain, France, Austria, and Germany the study found that IWB is beneficial to both service firms and employees themselves. Similarly, in 52 cities of Spain, a study was conducted on four-star hotels, 357 managers participated in the survey and results showed that when employees were given free hand for creativity i.e. transforming creative problem-solving ideas into applications such as employee innovative behaviour improves firms performance and core competencies

(Campo et al., 2014).

Morales et al. (2008) investigated 408 Spanish organisations (food farming, manufacturing, construction, and services) and found innovative organisations successfully secure larger market share because of the creative behaviour of workers. These innovative behaviours of employees lead organisations to gain competitive advantage and excellent performance (Hsu & Chen, 2017). Organisational competitive advantage is based on organisational innovative capabilities (Bharadwaj et al., 1993; Weerawardena, 2003). This is because employee innovative behaviour helps organisations in the improvement of overall firm performance and service excellence, taping new markets, attracting new customers, and taking the organisation to the top position in the market. Any organisation having employees with innovative behaviours, will have the potential to offer new insights concerning products, services and can achieve above normal performance. Therefore, the above discussion leads the researcher to hypothesize:

H3: Employee innovative work behaviour is positively related to HPO.

METHODOLOGY

RESEARCH DESIGN

The purpose of this research is to examine the impact of HPWS, high-performance organisational culture, and IWB, on the high performance of software development organisations. The research design consists of cross-sectional data and hypothesis testing based on quantitative data. The study was conducted in the IT sector of Pakistan. The hypotheses were tested to answer the research questions, which were derived from research objectives. The hypothesis testing approach helps to infer causal relationships among variables (Sekaran & Bougie, 2016).

PARTICIPANTS AND PROCEDURE

Data were collected through a self-administered survey. The study was conducted in the IT sector of Pakistan. This study draws its sample respondents from every top manager in each of the software development firms. Top managers who set goals and make decisions about the direction of the business. The sample for this study was chosen using the simple random sampling (SRS) technique for the following reasons. First, simple random sampling remains the best sampling when the generalizability of findings is the study objective (Ghauri & Grønhaug, 2005; Sekaran & Bougie, 2016). It has the least element of personal bias. Thus, the result of the aforesaid effort yielded a response of 225 returned questionnaires out of a total of 520 questionnaires that were administered, which gave an effective response rate of 43.2 percent.

Yet, out of 225 returned questionnaires, 19 questionnaires were considered unusable as the participant software firm has been less than five years in the industry or filled by other than manger. As firm duration in the business and designation were the controlled variables in the study. The remaining 206 questionnaires are accounted 39.6% usable response rate which is sufficient for further analysis. The aforesaid response was satisfactory and representative of the population of software development firms that have spent a minimum of five years working in the software industry. Following Sekaran and Bougie (2013) a response rate of 30% and above is acceptable for further study.

MEASUREMENT

Validated scale items for measuring the independent and dependent variables were adapted from the prior literature with slight modifications but with caution not to change the original meaning. Five-point Likert scales were used for all constructs, with the lowest score being 1 (completely disagree) and the highest 5 (completely agree).

HPO was assessed using the thirty-six (36) item scale, which was originally developed by De Waal and Goedegebuure (2017). The Cronbach alpha coefficient for this 36-item scale ranges from 0.73 to 0.86, indicating satisfactory internal consistency (De Waal et al., 2014; De Waal & Sultan, 2012).

HPWS was measured by twelve 12 items scale, adopted from (Zhang et al., 2014), p. 423. The measurement scale has satisfactory internal consistency with Cronbach alpha 0.92.

HPOC was measured by seven (7) items scale adopted from (Pichler et al., 2014). All scale items to measure HPOC in this survey are on a seven-point Likert scale representing 1 for "strongly disagree" to 7 for "strongly agree".

All items on IWB in this survey were measured by using a seven-point Likert scale representing 1 for "Never" to 7 for "Always". The scale has satisfactory internal consistency with Cronbach alpha 0.83 (Omri, 2015).

RESULTS

DEMOGRAPHIC

The information on the demographic characteristics of the respondent was extracted by asking questions on the period firm has been in the business, the number of employees, gender, designation, the period managers have been working with the firm, managers qualification and their age.

Result shows almost half of the surveyed firms 114 have spent between 05-10 years (55.3%),

while firms that have spent 11-15 years are 58 (28.2%) occupy the second largest position and lastly 34 firms (16.5%) have spent more than 16 years in business. In terms of the number of employees, software firms that employed 21-30 employees constitute the largest percentage in this study 68 representing (33%) of the total respondents. Next is the category of 60 software development firms that employed 31-40 employees which represent (29.1%). Whereas 36 firm that employed 41-50 employees represent (17.5%) and second last category of 26 firms with 10-20 employees represent (12.6%) and finally 16 firms having 51 or above employees represented (7.8%),

In terms of gender, out of 206, 189 respondents were male, representing (91.7%), while 17 (8.03%) respondents represent the female managers. With regards to the rank (designation) of the respondents, 188 (91.3%) of the respondents are managers, while 18 (8.07%) were directors.

In terms of experience, 75 (36.4%) of the respondents had experience of 6-10 years in their respective companies, while 48 (23.3%) of the respondents had spent 11-15 years in the business and 24 (11.7%) had been working between 16 and 20 years. In relation to the level of education, most of the participants had a master's degree 129 (62.6%) however, 71 (34.5%) had a bachelor's, and 6 (2.9%) had a doctoral degree. As for age, 48 (23.3%) were between 41 and 50 years, 25 (12.1%) were between 51 or above, 74 (35.9%) were between 31 and 40 years of age, and 59 (28.6%) were between 21 and 30 years of age.

INTERNAL CONSISTENCY RELIABILITY

Internal consistency is the ability of individual items/subscales of a construct to measure the same concept all to gather (McCrae et al., 2011). In this regard, Peterson and Kim (2013) recommended applying an assessment test of composite reliability or Cronbach alpha assessment test for assuring internal consistency reliability.

Accordingly, the current study utilized a composite reliability assessment test. In fact, composite reliability estimation is less biased as compared to Cronbach alpha coefficients. Gliem and Gliem (2003) and Hair et al. (2011) suggested a rule of thumb to interpret composite reliability. Rsults of 0.70 or above are considered good and below as less reliable which for the current study ranged from 0.933 to 0.976.

Similarly, for convergent validity, the average variance extracted AVE was used for each of the latent variables to assess the convergent validity of items, as suggested by Fornell and Larcker (1981). Chin (1998), on the other hand, recommended that AVE for a specific

construct should be at least 0.50 or higher. As a result, the AVE values for the current study's intended latent variables (0.581– 0.789) have met the recommended threshold of 0.50 AVE values (see Table 4.1).

TABLE 4.1: ***LOADINGS, COMPOSITE RELIABILITY AND AVERAGE VARIANCE EXTRACTED***

Construct	Item	Loading	Composite Reliability (CR)	Average variance extracted (AVE)
High performance organisation	HPO1	0.626	0.976	0.581
	HPO2	0.658		
	HPO3	0.77		
	HPO4	0.791		
	HPO5	0.79		
	HPO6	0.811		
	HPO7	0.783		
	HPO8	0.751		
	HPO9	0.761		
	HPO10	0.793		
	HPO11	0.779		
	HPO12	0.735		
	HPO13	0.774		
	HPO14	0.811		
	HPO15	0.778		
	HPO16	0.792		
	HPO17	0.784		
	HPO18	0.745		
	HPO19	0.728		
	HPO20	0.763		
	HPO21	0.793		

Construct	Item	Loading	Composite Reliability (CR)	Average variance extracted (AVE)
	HPO22	0.722		
	HPO23	0.778		
	HPO24	0.73		
	HPO25	0.749		
	HPO26	0.759		
	HPO27	0.81		
	HPO28	0.742		
	HPO29	0.776		
High performance work system	HPWS1	0.803	0.933	0.608
	HPWS2	0.835		
	HPWS3	0.789		
	HPWS4	0.781		
	HPWS5	0.816		
	HPWS6	0.714		
	HPWS7	0.76		
	HPWS8	0.762		
	HPWS9	0.747		
High performance organisational culture	HPOC1	0.828	0.937	0.789
	HPOC2	0.921		
	HPOC3	0.839		
	HPOC4	0.813		
Innovative work behaviour	IWB1	0.869	0.949	0.729
	IWB2	0.809		
	IWB3	0.891		
	IWB4	0.876		
	IWB5	0.884		
	IWB6	0.761		

IWB7	0.877

DISCRIMINANT VALIDITY

According to Götz et al. (2010), the discriminant validity of a construct is the extent to which a specific latent construct is different from the other latent construct within the framework. One of these standards for assessing the discriminant variable of the latent construct suggested by Fornell and Larcker (1981) is by exploring the AVE. The AVE value of each latent construct is compared with reflective loadings of the other constructs in the cross-loading table. Where, prior to proceeding for the square root, the AVE scores should be 0.50 or greater which were ensured for the current study to be significantly adequate (see Table 4.2). The AVE values are in bold and taken after the square root of each latent variable ranged from 0.763 to 0.888 which suggest that adequate discriminant validity is achieved.

TABLE 4.2: *DISCRIMINANT VALIDITY, FORNELL-LARCKER CRITERION*

	HPO	HPOC	HPWS	IWB
HPO	**0.763**			
HPOC	0.592	**0.888**		
HPWS	0.729	0.671	**0.779**	
IWB	0.622	0.515	0.695	**0.854**

The second way to confirm discriminant validity is by assessing the comparison of indicator loadings with cross-loadings where according to Chin (1998) the indicator loadings should be greater than cross-loadings. Following these precautions for the current study, all the indicators were found to have indicator loadings fairly higher than cross-loadings (see Table 4.1) which suggests that adequate discriminant validity is achieved.

Heterotriat-mono-Trait ratio of correlation (HTMT) based on multitrait-multimethod matrix recommended by (Henseler et al., 2015) and used by many scholars recently including Voorhees et al. (2016). As, the adequate values must be less than 0.90 the current study's output values ranged from 0.551 to 0.865 (see Table 4.3 which confirms the achievement of discriminant validity.

TABLE 4.3: HETERO-TRAIT MONO-TRAIT (HTMT)

	HPO	HPOC	HPWS	IWB
HPO				
HPOC	0.625			

HPWS	0.765	0.723		
IWB	0.651	0.551	0.743	

HYPOTHESIS TESTING

The structural model assessment was done through running bootstrapping procedures with 5000 bootstrap samples on 206 cases to outline path coefficient`s significance level of the direct hypothesized relationships at the first instance (Hair et al., 2014; Hair et al., 2012; Hair et al., 2009).

Previous research depicted high performance work system would have a positive or negative impact on high performance organisation based on which, the current study hypothesized the link in hypothesis 1. The PLS path coefficients (β = 0.123, t = 1.465, p > 0.144) has concluded an insignificant relationship between HPWS and high performance organisation thus, rejecting 1. Parallel to this, high performance organisational culture was also hypothesized to be positively or negetivly related with high performance organisation. Results from the PLS path modeling have outlined a positive relationship (β = 0.140, t = 2.171, p < 0.030) thus, expressing support for hypothesis 2.

The current study proposed innovative work behaviour should be related significantly to high performance organisation and collective organisational engagement. Results from PLS path modeling as seen in table 4.29 have concluded innovative work behaviour is significantly and positively related with collective organisational engagement (β = 0.232, t = 2.633, p < 0.009) thus hypothesis 6 was supported. However innovative work behaviour did not show significant relation with high performance organisation (β = 0.060, t = 0.666, p > 0.506); and hypothesis 3 was rejected.

TABLE 4.4: ***RESULTS OF DIRECT HYPOTHESES***

Hypothesis	Relationship	Beta	Standard Deviation	T Statistics (|O/STDEV|)	P Values	Decision
H1	HPWS -> HPO	0.123	0.084	1.465	0.144	Not supported
H2	HPOC -> HPO	0.140	0.065	2.171	0.030	Supported
H3	IWB -> HPO	0.060	0.090	0.666	0.506	Not supported

Note: *P< .10; **P< .05; *** P < .01

COEFFICIENT OF DETERMINATION

The PLS SEM needs R2, coefficient of determination to evaluate the structural model, which is also known as the coefficient of determination, for purposes of assessing variance explained in the endogenous latent variable (Joseph et al., 2016). The value of R2 indicates the proportion of variance in the dependent variable (s) which can be explained by one or more predictable variables (Plonsky & Ghanbar, 2018). It is important to note that the value of R2 is based on context related to particular research (Hair et al., 2011). R2 value can range from 0 to 1. Though, since the complexity of the model varies, there is no exact rule of thumb for predicting a given R2 acceptable value for all (Hair et al., 2011). For assessment R2 value of 0.10 is considered as acceptable (Falk & Miller, 1992), while according to Chin (1998), it is suggested that in PLS-SEM the R2 value of 0.19 is considered weak, 0.33 as moderate and 0.60 as substantial. similarly, Hair et al. (2014) suggested that R2 values of 0.25, 0.50 and 0.75 are low, reasonable and significant.

As seen in table 4.5 that indicates, HPWS, high performance organisational culture, and innovative work behaviour collectively explained 74% of the variance in high performance organisation. According to Falk and Miller (1992), 0.10 % acceptable. Thus, the level of variance proposed by the model are considerably reasonable and significant due to the deployment of substantial predictors of high performance organisation.

TABLE 4.5: VARIANCE EXPLAINED IN THE ENDOGENOUS LATENT VARIABLE

Latent Variable	R Square Value	Variance Explained
HPO	0.744	Significant

ASSESSMENT OF EFFECT SIZE (F2)

According to Chin (1998) effect size is the relative effect of an exogenous latent variable on an endogenous latent variable by means of changes in the R2 values.

The threshold of (f2) was expressed by Cohen (1992), value from 0.020 as weak, 0.150 as moderate value and 0.350 is considered a strong effect value. Table 4.31 reveals the relative effect size of the latent variables.

As seen in table 4.6 that describes the effect size of both predictors,. These results suggest that innovative work behaviour has no direct effect on high performance organisation 0.007, while HPWS 0.018 and hgih performance organisational culture 0.042 as exogenous variables had weak effect size on high performance organisation.

TABLE 4.6: EFFECT SIZE

Variable	HPO
HPOC	0.042
HPWS	0.018
IWB	0.007

DISCUSSION

The study offers a comprehensive understanding of how high-performance work systems (HPWS), high-performance organisational culture (HPOC), and innovative work behaviour (IWB) influence the development of a high-performance organisation (HPO), particularly in the context of software development firms in Pakistan. Although existing literature commonly portrays HPWS as a critical driver of improved organisational outcomes (Chiang et al., 2015; Mazzei, Flynn, & Haynie, 2016; Pak & Kim, 2018), the current study found an insignificant direct effect of HPWS on HPO. This finding is in line with previous studies (Kloutsiniotis et al., 2021; Jensen et al., 2011, 2016) and suggests that HPWS may not yield the desired performance outcomes unless mediated by collective organisational engagement. In the absence of such engagement, HPWS practices may lead to increased pressure, stress, and even employee burnout (Gulza et al., 2014; Wang et al., 2019), raising concerns about employee well-being and exposing a darker side of HPWS, where workers feel overburdened and undervalued. These negative outcomes reflect a misalignment between HPWS and employee expectations, especially when cultural and contextual sensitivities are overlooked.

In contrast, the findings indicated a statistically significant positive relationship between High-Performance Organisational Culture and organisational performance, consistent with past empirical findings (Cochrane, 2017; Fareed et al., 2017; Kaliprasad, 2006). This supports the argument that a positive and engaging work culture significantly enhances employee commitment and performance. Drawing from the Resource-Based View (RBV) theory (Terziovski, 2010; Gerhart & Feng, 2021), the study affirms that HPOC can serve as an inimitable organisational resource, boosting employee collaboration, initiative-taking, and operational productivity. Employees in software firms who experienced strong support, shared values, and team cohesion reported higher levels of engagement and were more likely to contribute positively to organisational outcomes (Lapshun, 2020; Delery & Roumpi, 2017). Managers noted that HPOC empowers individuals to take initiative, address workplace challenges effectively, and foster innovation through supportive social mechanisms (Tan, 2019).

Regarding IWB, the study revealed an insignificant direct link with HPO, rejecting the assumption that innovative behaviour directly enhances organisational performance. This aligns with past literature (Shih & Susanto, 2011; Janssen, 2003), which explains that innovation can create internal conflicts, especially when coworkers resist change due to insecurity or nostalgia for past processes (Van de, 2015; Davila, 2005). The findings suggest that without organisational mechanisms that promote collective engagement and psychological safety, creative employees may feel isolated, discouraged, or even leave the organisation. As Kim and Koo (2017) observed, cultural factors such as fear of failure and resistance to non-traditional ideas may discourage innovation in hierarchical or rigid environments. However, when collective organisational engagement is introduced as a mediating factor, the negative effects of IWB are mitigated, and the true potential of innovative employees is realised (Cropanzano & Mitchell, 2005). Therefore, managers are urged to foster a climate that encourages creativity, rewards innovation, and includes all employees in change processes to harness the full benefits of IWB towards high performance (Haque & Oino, 2019).

THEORETICAL CONTRIBUTIONS

The conceptual framework for the current study was developed based on the theoretical gaps and pieces of evidence identified in the pertinent literature. Moreover, the explanation and support for the conceptual framework were also documented underlying theoretical perspectives, i.e. resource-based view theory RBV of the firm. The findings from this study make several contributions to the current literature by providing further empirical evidence. First, resource-based view RBV theorizes that organisations can achieve competitive advantage and enhanced organisational performance through their unique internal resources (Barney, 1991). The theory also addressed that organisations should focus on their competencies like internal organisational strategies, human capital, useful information sources, strong culture, and procedures, in order to attain the desired competitive strategic position in the marketplace (Delery & Roumpi, 2017; Latukha et al., 2019). In addition, assets are called as organisational resources, whereas capabilities are the abilities of an organisation to exploit its resources, and competencies are the cross-functional integration and coordination of organisational capabilities (Bamel & Bamel, 2018). Therefore, based on the RBV viewpoint, high performance work system, high performance organisational culture, and employees innovative work behaviour are considered in the current study as internal resources as well as competencies (to utilize the resources) which can enhance the organisational performance.

The study findings confirmed that HPWS, high performance organisational culture, and innovative behaviour of employees directly influnce high organisational performance in software development firms of Pakistan. All these elements are inline and supported with RBV theory. This study also introduced a critical element for achieving organisational high performance by HPWE, which is a combination of practices, behavioural aspects as well as cultural advancement. This combined nature of the variables in this study, adds to the theory about how a combination of all these unique factors can be helpful for creating suitable environment to achieve above normal performance.

PRACTICAL CONTRIBUTIONS

Besides significant theoretical contributions based on empirical evidence of the current study, it is very crucial to discuss the salient practical significant contributions of the study. As this study expanded knowledge boundaries, it has revealed numerous practical implications as well. These implications not only are beneficial for managers but also important to the IT sector and especially software development firms in Pakistan. The current study provides a contributory framework regarding high performance organisation in the information technology sector. Thus, this study contributes practically by highlighting the importance of a system of HR practices in terms of HPWS and its strong significant relationship with high performance. This study also has highlighted negative aspects of HPWS and explains how mangers can help employees with work over load, burnout, stress and anxiety. This study stresses that HPWS alone is not sufficient, there must be a combination of strong organisation culture which would make high performance work environment for achieving high performance while at the same time avoiding negative effects of HPWS. Moreover, this study shows that IWB may also create conflicts between innovative and other employees which can be problematic for innovation and performance improvement. Therefore, managers need to observe deeply and more closely in order to overcome such situations.

LIMITATIONS AND FUTURE DIRECTIONS

The current study objectives have been achieved to a great extent, also the findings provide both theoretical and practical contributions. Nevertheless, it is worth mentioning that there are some limitations of the current study which further highlight the scope for future research. First, the study findings are only contingent on software development firms. Consequently, it could be difficult to generalize the current study findings to other service sector organisations without conducting a similar study on them. Thus, future researchers would conduct a similar

study in other service sector organisations functioning in Pakistan such as insurance, hotels, health care, and education, with a view to verifying the current study findings.

Second, the current investigation was cross-sectional since a longitudinal study was not practicable. A cross-sectional design is simple, low-cost, and enables for data collection in a short amount of time. While there are benefits to utilizing a cross-sectional design, however, it only provides limited information about changes in the topic under investigation. In the future, a longitudinal study could be used to investigate the challenges of high organisational performance. Furthermore, this study used a single data collection instrument in the form of a questionnaire survey. For in-depth data on high performance among SMEs in Pakistan, future research may want to supplement interviews with surveys.

Third, the study collected data through self-reported questionnaires covering the independent and dependent variables scales. Put differently, all variables were measured with survey method. The data collected through a self-reported questionnaire or used measures are linked with the issues of social desirability and memory deterioration although such type of data is also verified for reliability and validity. Therefore, future researchers would collect data from organisational archival records, especially on high organisational performance. It would also add value to the pertinent literature by measuring organisational performance through objective measures (archival records).

REFERENCES

1. Bamel, U. K., & Bamel, N. (2018). Organisational resources, KM process capability and strategic flexibility: a dynamic resource-capability perspective. J*ournal of Knowledge Management*, *22*(7), 1555-0460.
2. Barney. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99-120.
3. Barney. (2001). Is the resource-based "view" a useful perspective for strategic management research? Yes. A*cademy of Management Review*, *26*(1), 41-56.
4. Barney, & Arikan, A. (2001). The resource-based view: Origins and implications John Wiley & Sons, (Vol. 124188), https://doi.org/10.1111/b.9780631218616.2006.00006.x
5. Barrick, M. R., Thurgood, G. R., Smith, T. A., & Courtright, S. H. (2015). Collective organisational engagement: Linking motivational antecedents, strategic implementation, and firm performance. *Academy of Management Journal*, *58*(1), 111-135.
6. Berg, P. (1999). The effects of high performance work practices on job satisfaction in the

United States steel industry. *Relations Industrielles*, *54*(1), 111–134.

7. Hafiz Muhammad Ahmed Siddiqui, Einas Azher, Osama Ali, Dr. Muhammad Faseeh Ullah Khan, Shah Salman, Osama Ahmed. Synergizing Resilience and Digitalization: A New Paradigm in Supply Chain Performance – Vol. 3 No. 1 (2025): Online ISSN: 3006-7170 & Print ISSN: 3006-7162, https://thecrsss.com/index.php/Journal/article/view/414 The Critical Review of Social Sciences Studies
8. Einas Azher, Sadia Javed, Hafiz Muhammad Ahmed Siddiqui, Farrukh Zafar, Osama Ahmed. Exploring the Impact of Digital Supply Chain Integration on the Firm's Performance with Mediation and Moderation Role of Knowledge Sharing and Environmental Turbulence - Vol. 3 No. 1 (2025): ISSN Online: 3006-4708, ISSN Print: 3006-4694. https://policyjournalofms.com/index.php/6/article/view/341 Social Science Review Archives
9. Muniza Syed, Osama Ahmed, Einas Azher, Shah Salman, Hafiz Muhammad Ahmed Siddiqui, Sadia Javed. The Impact of Influencer Marketing on Consumer Purchase Intention: The Mediating Role of Trust, Content, Consumer Engagement, and Popularity - Vol (03), NO. 1 (2025), Page # 147-166, ISSN Online 3006-2500 & ISSN Print 3006-2497. https://assajournal.com/index.php/36/article/view/134 Advance Social Science Archives Journal.
10. Bharadwaj, S. G., Varadarajan, P. R., & Fahy, J. (1993). Sustainable competitive advantage in service industries: a conceptual model and research propositions. *Journal of Marketing*, *57*(4), 83-99.
11. Bilton, C., & Cummings, S. (2010). Creative strategy: Reconnecting business and innovation (Vol. 3): John Wiley & Sons.
12. Bowman, C., & Toms, S. (2010). Accounting for competitive advantage: The resource-based view of the firm and the labour theory of value. *Critical Perspectives on Accounting*, *21*(3), 183-194.
13. Camisón, C., & Villar-López, A. (2014). Organisational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of Business Research*, *67*(1), 2891-2902.
14. Campo, S., M. Díaz, A., & J. Yagüe, M. (2014). Hotel innovation and performance in times of crisis. *International Journal of Contemporary Hospitality Management*, *26*(8), 1292-

1311.

15. Chan, L. L., Shaffer, M. A., & Snape, E. (2004). In search of sustained competitive advantage: the impact of organisational culture, competitive strategy and human resource management practices on firm performance. *The International Journal of Human Resource Management*, *15*(1), 17-35.

16. Sh. M. Fakhre Alam Siddiqui, Tureshna Kumari, Hammad Zafar, Hafiz Muhammad Ahmed Siddiqui and Muhammad Faseeh Ullah Khan. Analyzing the Impact of CSR on Corporate Performance Using PLS-SEM: Exploring the Mediating Roles of Human Resource Management and Customer Satisfaction in Pakistan's Food and Beverage Manufacturing Sector - Vol (13), NO. 3 (2024), p-ISSN 2788-452X & e-ISSN 2304-375X - https://poverty.com.pk/index.php/Journal/article/view/862 - Journal of Asian Development Studies.

17. Mavara Siddiqui, Hafiz Muhammad Ahmed Siddiqui, Salman Hussain, Dr. Muhammad Faseeh Ullah Khan, Syed Faraz Ali, Muhammad Ahsan Hayat. Interaction of Financial Literacy In Impulsive Buying Behavior Theory - Vol. 09, NO. (3), pp-780-802, ISSN: 2059-6588(print), ISSN: 2059-6596 (online) 2024 - https://remittancesreview.com/article-detail/?id=2059 - Remittances Review. https://doi.org/10.5281/zenodo.13294643

18. Hussain, F., Siddiqui, H. M. A., Zafar, F., & Ullah, M. F. (2024). Effectiveness of Online shopping characteristics and well-designed website on customer satisfaction to purchase Online: Evidence from Textile industry of Hyderabad. Vol (03) No. 07 (2024) - https://pjlaw.com.pk/index.php/Journal/article/view/v3i7-58-71 - Pakistan Journal of Law, Analysis and Wisdom (PJLAW)

19. Chiang, Y.-H., Hsu, C.-C., & Shih, H.-A. (2015). Experienced high performance work system, extroversion personality, and creativity performance. Asia Pacific Journal of Management, *32*(2), 531-549.

20. Cochrane, B. S. (2017). Leaders go first: creating and sustaining a culture of high performance. Paper presented at the Healthcare Management Forum, Sage CA: Los Angeles, CA: SAGE Publications, *30*(5), 229-232

21. Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, *31*(6), 874-900.

22. Damanpour, F., Walker, R. M., & Avellaneda, C. N. (2009). Combinative effects of

innovation types and organisational performance: A longitudinal study of service organisations. *Journal of Management Studies*, *46*(4), 650-675.

23. Davila, T. (2005). The promise of management control systems for innovation and strategic change. Controlling strategy: Management, accounting, and performance measurement, Chapman, C. S. 37–61. Oxford: Oxford University Press.
24. De Oliveira, L. B., & Da Silva, F. F. R. A. (2015). The effects of high performance work systems and leader-member exchange quality on employee engagement: Evidence from a Brazilian non-profit organisation. P*rocedia Computer Science*, *55*, 1023-1030.
25. De Waal. (2007). The characteristics of a high performance organisation. Business Strategy Series, 8(3), 179-185.
26. De Waal. (2012). Applying the high-performance organisation framework to a multinational retailer. *Global Business and Organisational Excellence*, *32*(1), 51-63.
27. De Waal. (2012). What makes a high performance organisation: Five validated factors of competitive advantage that apply worldwide: Global Professional Pub.
28. De Waal. (2017). A longitudinal study into the effectiveness of the HPO Framework: The case of a social care and rehabilitation organisation. *Journal of Advances in Management Research*, *14*(3), 352-374.
29. De Waal. (2018). Success factors of high performance organisation transformations. *Measuring Business Excellence*, *22*(4), 375-390.
30. De Waal, & De Haas, J. (2018). Longitudinal research into the effects of the high performance organisation framework: The case of NEH Philippines. *International Journal of Productivity and Performance Management*, *67*(6), 985-999.
31. De Waal, & Goedegebuure, R. (2017). Investigating the causal link between a management improvement technique and organisational performance: The case of the HPO framework. *Management Research Review*, *40*(4), 429-450.
32. De Waal, Goedegebuure, R., & Mulimbika, T. (2014). Creating high performance governmental organisations in Zambia. *African Journal of Business and Economic Research*, *9*(2_3), 57-86.
33. De Waal, Goedegebuure, R., & Tan Akaraborworn, C. (2014). Adapting the high performance organisation framework to the Thai context. *Measuring Business Excellence*, *18*(2), 28-38.

34. De Waal, & Heijtel, I. (2017). Developing a change approach for the transition to a high performance organisation. *Measuring Business Excellence*, *21*(2), 101-116.

35. De Waal, A., & Linthorst, J. (2020). Future-Proofing the High-Performance Organisation. Sustainability, 12(20), 8507.

36. De Waal, Mroueh, M., & Schiavo, L. (2017). Analyzing performance in the UAE manufacturing industry using the high performance organisation framework. *Middle East Journal of Business*, *55*(4022), 1-9.

37. De Waal, & Mulimbika, T. (2017). A comparative analysis of Zambian governmental institutions using the HPO framework. *SAGE Open*, *7*(3), 2158244017715672.

38. De Waal, & Sultan, S. (2012). Applicability of the high performance organisation framework in the Middle East: The case of Palestine Polytechnic University. Education, Business and Society: *Contemporary Middle Eastern Issues*, *5*(3), 213-223.

39. De Waal, & Wang, A. (2017). Applicability of the high performance organisation (HPO) framework in the Chinese context: The case of a state-owned enterprise. *Journal of Chinese Human Resource Management*, *8*(1), 22-39.

40. Delery, J. E., & Roumpi, D. (2017). Strategic human resource management, human capital and competitive advantage: is the field going in circles? *Human Resource Management Journal*, *27*(1), 1-21.

41. Falk, R. F., & Miller, N. B. (1992). A primer for soft modeling: University of Akron Press.

42. Fareed, M., Mohd Isa, M. F., & Wan Mohd Noor, W. S. (2017). Human resource professionals' effectiveness, organisational culture and high performance work system link: evidence from Pakistan. *International Review of Management and Marketing*, *7*(1), 291-299.

43. Feirong Yuan, D. J. M. (2015). Innovative Behaviour. *Journal of Organisational Behaviour*. doi: 10.1093/OBO/9780199846740-0054

44. Ferreira, P., Neira, I., & Vieira, E. (2012). The strategic approach to the high-performance paradigm: a European perspective. *Procedia-Social and Behavioural Sciences*, *58*, 474-482.

45. Fitzgerald, T. H. (1988). Can change in organisational culture really be managed? *Organisational Dynamics*, *17*(2), 5-15.

46. Fu, N., Bosak, J., Flood, P. C., & Ma, Q. (2019). Chinese and Irish professional service firms compared: Linking HPWS, organisational coordination, and firm performance. *Journal of Business Research*, *95*, 266-276.

47. Gambi, L. D. N., Boer, H., Gerolamo, M. C., Jørgensen, F., & Carpinetti, L. C. R. (2015). The relationship between organisational culture and quality techniques, and its impact on operational performance. *International Journal of Operations & Production Management*, *35*(10), 1460-1484.

48. Gerhart, B., & Feng, J. (2021). The Resource-Based View of the Firm, Human Resources, and Human Capital: Progress and Prospects. *Journal of Management*, *20*(2), 1–24.

49. Ghauri, P. N., & Grønhaug, K. (2005). Research methods in business studies: A practical guide: Pearson Education.

50. Grant, R. M. (1991). The resource-based theory of competitive advantage: implications for strategy formulation. *California Management Review*, *33*(3), 114-135.

51. Guieu, G., Brulhart, F., & Maltèse, L. (2010). Théorie des ressources. Débats théoriques et applicabilités. *Revue française de gestion*, *(5)*, 83-86.

52. Gulza, S., Moon, M. A., Attiq, S., & Azam, R. I. (2014). The darker side of high performance work systems: Examining employee psychological outcomes and counterproductive work behaviour. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, *8*(3), 715-732.

53. Gupta, S., Woodside, A., Dubelaar, C., & Bradmore, D. (2009). Diffusing knowledge-based core competencies for leveraging innovation strategies: Modelling outsourcing to knowledge process organisations (KPOs) in pharmaceutical networks. *Industrial Marketing Management*, *38*(2), 219-227.

54. Hair, Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, *19*(2), 139-152.

55. Hair, J., Hult, T., Ringle, C., & Sarstedt, M. (2014). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), SAGE Publications, Thousand Oaks, CA.

56. Hair, J., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139-152.

57. Hair, J. F., Sarstedt, M., Pieper, T. M., & Ringle, C. M. (2012). The use of partial least squares structural equation modeling in strategic management research: a review of

past practices and recommendations for future applications. *Long Range Planning*, *45*(5-6), 320-340.

58. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. E*uropean Business Review*, *26*(2), 106-121.

59. Haque, A. U., & Oino, I. (2019). Managerial challenges for software houses related to work, worker and workplace: Stress reduction and sustenance of human capital. Polish *Journal of Management Studies*, *19*(1), 170-189.

60. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115-135.

61. Hinterhuber, A. (2013). Can competitive advantage be predicted? Towards a predictive definition of competitive advantage in the resource-based view of the firm. *Management Decision*, *51*(4), 795-812.

62. Hsu, M. L., & Chen, F. H. (2017). The cross-level mediating effect of psychological capital on the organisational innovation climate–employee innovative behaviour relationship. *The Journal of Creative Behaviour*, *51*(2), 128-139.

63. Farhan Hussain, Hafiz Muhammad Ahmed Siddiqui, Dr. Muhammad Faseeh Ullah, Farrukh Zafar, Fatima Liaquat, Seema Dero .Relevance of Consumer Generated Content in Food Industry Of Pakistan - Vol. 21 NO. S11 (2024): ISSN 1741-8992, 1741-8984. https://migrationletters.com/index.php/ml/article/view/10896 - Migration Letters.

64. Farrukh Zafar, Rabia Sabri, Hafiz Muhammad Ahmed Siddiqui, Iraj Masood. Emerging Issues in Management Accounting: Digital Technologies, Governance, and Sustainability - - Vol (13) No. 1 (2024)- https://bbejournal.com/BBE/article/view/711 - Bulletin of Business and Economics (BBE)

65. Hafiz Muhammad Ahmed Siddiqui, Farrukh Zafar, Asma Bano. Exploring the Effects of Audit Committee Size, Board Size, Female Directors, and Tax Aggressiveness on Firm Profitability - Vol. (3) No. (3) 2023 - https://gjmif.com/index.php/GJMIF/article/view/77/44 - GISRAS Journal of Management & Islamic Finance

66. Hafiz Muhammad Ahmed Siddiqui, Farrukh Zafar. Riding the Waves of COVID-19: How the Pandemic Shook Up Financial Assets like Bitcoin, Crude Oil, Gold, and S&P500 - Vol. (16) No. (4) 2023 - https://kasbitoric.com/index.php/kbj/article/view/358 - Kasbit Business Journal

67. Hafiz Muhammad Ahmed Siddiqui, Farrukh Zafar, M. Faseeh Ullah Khan. A Study on Critical Success Factor, Challenges and Obstacles in Talent Management - Vol. (5) No. (3) 2022 http://pjia.com.pk/index.php/pjia/article/view/627 - Pakistan Journal of International Affairs, https://doi.org/10.52337/pjia.v5i3.627

68. Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, *38*(3), 635-672.

69. Ichniowski, C. K., Shaw, K., & Prennushi, G. (1997). The effects of human management practices on productivity: A study of steel finishing lines. *American Economic Review*, *87*(3), 291–312.

70. Isaksen, S. G., & Ekvall, G. (2010). Managing for innovation: The two faces of tension in creative climates. *Creativity and Innovation Management*, *19*(2), 73-88.

71. Janssen, O. (2003). Innovative behaviour and job involvement at the price of conflict and less satisfactory relations with co-workers. *Journal of Occupational and Organisational Psychology*, *76*(3), 347-364.

72. Jensen, J. M., Patel, P. C., & Messersmith, J. (2011). Exploring employee reactions to high performance work systems: Is there a potential "dark side"? Paper presented at the Academy of Management Proceedings. https://doi.org/10.5465/ambpp.2011.65869137.

73. Kaliprasad, M. (2006). The human factor II: Creating a high performance culture in an organisation. *Cost Engineering*, *48*(6), 27-42.

74. Karadas, G., & Karatepe, O. M. (2019). Unraveling the black box: The linkage between high-performance work systems and employee outcomes. *Employee Relations*, *41*(1), 67-83.

75. Kloutsiniotis, P. V., Katou, A. A., & Mihail, D. M. (2021). Examining the "dark-side" of high performance work systems in the Greek manufacturing sector. Employee Relations: *The International Journal*, *43*(5), 1104-1129.

76. Lapshun, A. (2020). High-Performance Organisational Culture and Corporate

Success (Doctoral dissertation, Walden University).

77. Latukha, M., Lisina, P., & Panibratov, Y. (2019). Developing sustainable competitive advantage of a firm through human resource management practices: A competence-based approach. *Global Business and Economics Review*, *21*(1), 96-119.

78. Lee, S., & Yu, K. (2004). Corporate culture and organisational performance. *Journal of Managerial Psychology*, *19*(4), 340-359.

79. Lippman, S. A., & Rumelt, R. P. (1982). Uncertain imitability: An analysis of interfirm differences in efficiency under competition. *The Bell Journal of Economics*, 418-438.

80. MacDuffie, J. P. (1995). Human resource bundles and manufacturing performance: Organisational logic and flexible production systems in the world auto industry. *Industrial and Labor Relations Reviews*, *48*, 197–221

81. Makadok, R. (2001). Toward a synthesis of the resource-based and dynamic-capability views of rent creation. *Strategic Management Journal*, *22*(5), 387-401.

82. Mazzei, M. J., Flynn, C. B., & Haynie, J. J. (2016). Moving beyond initial success: Promoting innovation in small businesses through high-performance work practices. *Business Horizons*, *59*(1), 51-60.

83. McCrae, R. R., Kurtz, J. E., Yamagata, S., & Terracciano, A. (2011). Internal consistency, retest reliability, and their implications for personality scale validity. *Personality and Social Psychology Review*, *15*(1), 28-50.

84. Mueller, F. (1996). Human resources as strategic assets: an evolutionary resource-based theory. *Journal of Management Studies*, *33*(6), 757-785.

85. Newbert, S. L. (2007). Empirical research on the resource-based view of the firm: an assessment and suggestions for future research. *Strategic Management Journal*, *28*(2), 121-146.

86. Omri, W. (2015). Innovative behaviour and venture performance of SMEs: The moderating effect of environmental dynamism. *European Journal of Innovation Management*, *18*(2), 195-217.

87. Pak, J., & Kim, S. (2018). Team manager's implementation, high performance work systems intensity, and performance: a multilevel investigation. *Journal of Management*, *44*(7), 2690-2715.

88. Pichler, S., Varma, A., Yu, A., Beenen, G., & Davoudpour, S. (2014). High performance

work systems, cultures and gender demography. *Employee Relations*, *36*(6), 693-707.

89. Plonsky, L., & Ghanbar, H. (2018). Multiple regression in L2 research: A methodological synthesis and guide to interpreting R2 values. *The Modern Language Journal*, *102*(4), 713-731.

90. Rabl, T., Jayasinghe, M., Gerhart, B., & Kühlmann, T. M. (2014). A meta-analysis of country differences in the high-performance work system–business performance relationship: The roles of national culture and managerial discretion. *Journal of Applied Psychology*, *99*(6), 1011-1026.

91. Reuvers, M., Engen, M. L., Vinkenburg, C. J., & Wilson, E. (2008). Transformational leadership and innovative work behaviour: Exploring the relevance of gender differences. *Creativity and Innovation Management*, *17*(3), 227-244.

92. Rheeder, A. (2014). How does a manager create a high performance culture within an organisation? (Doctoral dissertation), University of Cape Town.

93. Rouse, M. J., & Daellenbach, U. S. (2002). More thinking on research methods for the resource-based perspective. *Strategic Management Journal*, *23*(10), 963-967.

94. Rumelt, R. P. (1991). How much does industry matter? Strategic Management *Journal*, *12*(3), 167-185.

95. Schroeder, R. G., Bates, K. A., & Junttila, M. A. (2002). A resource-based view of manufacturing strategy and the relationship to manufacturing performance. *Strategic Management Journal*, *23*(2), 105-117.

96. Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill building approach: John Wiley & Sons.

97. Shanker, R., Bhanugopan, R., Van der Heijden, B. I., & Farrell, M. (2017). Organisational climate for innovation and organisational performance: The mediating effect of innovative work behaviour. *Journal of Vocational Behaviour*, *100*, 67-77. https://doi.org/10.1016/j.jvb.2017.02.004.

98. Shih, H.-A., & Susanto, E. (2011). Is innovative behaviour really good for the firm? Innovative work behaviour, conflict with coworkers and turnover intention: Moderating roles of perceived distributive fairness. *International Journal of Conflict Management*, *22*(2), 111-130.

99. Smartmind, t. (2019). What Does a High Performance and Organisational Culture Look

Like? Retrieved 05/11/2019, 2019, from https://smartminds.io/what-does-high-performance-culture-look-like/

100. Tan, B.-S. (2019). In search of the link between organisational culture and performance: A review from the conclusion validity perspective. *Leadership and Organisation Development Journal*, *40*(3), 356-368.

101. Terziovski, M. (2010). Innovation practice and its performance implications in small and medium enterprises (SMEs) in the manufacturing sector: a resource-based view. Strategic *Management Journal*, *31*(8), 892-902.

102. Van de Ven, A. H. (2015). Organisational change. Wiley Encyclopedia of Management, 1-8.

103. Vatne, E. (1995). Local resource mobilisation and internationalisation strategies in small and medium sized enterprises. *Environment and Planning A*, *27*(1), 63-80.

104. Wang, Z., Xing, L., & Zhang, Y. (2019). Do high-performance work systems harm employees' health? An investigation of service-oriented HPWS in the Chinese healthcare sector. The International Journal of Human Resource Management,32(10), 2264-2297.

105. Weerawardena, J. (2003). The role of marketing capability in innovation-based competitive strategy. *Journal of Strategic Marketing*, *11*(1), 15-35.

106. Zhang, Fan, D., & Zhu, C. J. (2014). High-performance work systems, corporate social performance and employee outcomes: Exploring the missing links. *Journal of Business Ethics*, *120*(3), 423-435.

107. Zhang, M., Di Fan, D., & Zhu, C. J. (2014). High-performance work systems, corporate social performance and employee outcomes: Exploring the missing links. *Journal of Business Ethics*, *120*(3), 423-435.

108. Zott, C. (2003). Dynamic capabilities and the emergence of intraindustry differential firm performance: insights from a simulation study. *Strategic Management Journal*, *24*(2), 97-125.

109. Iqbal, M. S. (2022). The Effects of Collective Organisational Engagement, High Performance Work Environment, Innovative Work Behaviour Towards High Performance Organisation [Doctoral dissertation, Universiti Utara Malaysia].