

Pathways to Innovative Performance: Linking Extrinsic Motivation, Culture, and Job SatisfactionTarik Abdulsalam Alsabbah¹, Alireza Mohammad², Md Ashraful Islam³^{1,2} City Graduate School, City University Malaysia³ Graduate School of Business, University Kembangan MalaysiaCorresponding Author: Md Ashraful Islam, Email: ashraf.cma4066@gmail.com**Abstract**

Improving innovative performance among teachers is important for educational quality and for addressing environmental issues in schools. This study examines the influence of extrinsic motivation and organizational culture on teachers' innovative performance in Tabuk, Kingdom of Saudi Arabia. It also measures the mediating position of job satisfaction. Social Exchange Theory is the basis of the study. It also suggests that when teachers are given reasonable rewards, and work in a conducive and a responsible school culture, they become more contented with their employment. A quantitative cross-sectional design was used. Data were collected from 391 school teachers through structured questionnaires. Simple random sampling was applied to select the respondents. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings indicate that extrinsic motivation and organizational culture significantly and positively influence teachers' innovative performance. Job satisfaction partially mediates these relationships. The research is significant because it incorporates motivational, cultural and environmental factors in the educational aspect. In practice, the school management is to reinforce the reward systems and promote the favorable work environment in order to increase the satisfaction of the teachers and their innovative work. The research recommends that larger samples and other variables organizational in nature should be considered in future studies in order to enhance generalizability.

Keywords: Extrinsic Motivation, Organizational Culture, Job Satisfaction, Innovative Performance, Quantitative**1. Introduction**

The accelerated technological, environmental and societal changes make innovation in education more demanded. It suggests that there is a need to embrace new performance among teachers to ensure the needs of changing education are addressed. The theories of extrinsic motivation (financial incentives, awards, or organizational recognition) and organizational culture (the environment, values, and social norms) as the important factors that influence job attitudes and behaviors of teachers. Extrinsic motivation is the reward of the outside nature in terms of salaries and bonuses and recognition, which motivate employees to achieve improved performance (Gerhart & Fang, 2015; Nguyen, 2019). These incentives encourage employees to work better and give new ideas. Past research established that extrinsic rewards have the potential to enhance the outcomes and creativity of the employees provided that the employees believe that they are being assisted by the organization (Aldabbas et al., 2023). Nevertheless, extrinsic rewards can cause adverse effects as well when they are emphasized too much. As Aldabbas et al. (2023) stated, when extrinsic rewards are prioritized too much, it can undermine the intrinsic motivation, and diminish the creativity of the employees. This implies that rewards have to be well controlled in order to favor instead of diminish the innovative performance. The other factor that is significant and affects innovative performance is the organizational culture. Organizational culture is a set of shared values and beliefs which influence the way employees work and innovate in-sourced (Chipunza & Malo, 2017; Kuhn, 2009). Positive organizational culture promotes teamwork, sharing of knowledge and creativity. This assists employees to come up with new ideas and enhance the performance of innovation (Alharbi & Aloud, 2024). Nevertheless, a poor organizational culture may have adverse influence on innovation. Lee et al. (2023) highlighted that knowledge sharing can be poor, the organization can lack the organizational learning culture, and the knowledge systems can be inadequate, which will restrain the potential of employees to develop new ideas and innovative solutions. Moreover, job satisfaction is a significant variable that enhances staff motivation and inventions. The study conducted by Alkandi et al. (2023) revealed that satisfied employees have a higher chance to innovate and make their companies succeed. Job satisfaction is usually a mediating effort in between motivation and performance; satisfied employees will be more innovative and committed (Alshebami, 2021). Leadership that incorporates the ethic of environmental sustainability in the organizational culture forms and strengthens this culture, and it is sometimes referred to as green transformational leadership, which increases green performance by promoting employee engagement and commitment to environmental objectives (Sánchez-García et al., 2024). Besides, a successful organizational culture helps in green practices and environmental readiness to adapt to the changing environmental conditions, as well as sustainability-related practices (Woo & Kang, 2021). Knowledge sharing moderates this relationship, combining organizational motivation mechanism and culture to their effects on innovative environmental outcomes (Al Shammre et al., 2023). In the same vein, research discovered that the mediation by environmental and green human resource is embedded in the organizational culture and has been found to mediate performance, which supported the fact that culture-based innovation with extrinsic incentives such as green HRM practices (Doghan et al., 2022; Asfahani, 2023). In addition, a previous study established that leadership styles, as an aspect of organizational culture, influence the aspects of safety motivation and knowledge in construction projects, which subsequently enhance safety compliance and participation, and showed how motivated employees in culturally facilitating settings provide better performance results (Basahel, 2021). Also, one of the studies discovered that the development of an innovative organizational culture and organizational learning increases ambidextrous innovation capabilities, which means that cultural aspects are essential in the promotion of both types of innovation (Alsaied & Alkhoraf, 2024). One of the previous researchers indicated that the innovation itself is a considerable predictor of organizational performance mediated by strategic decision-making that shows how motivated employees in line with the organizational culture contribute to the enhanced innovative performance and results (Al-Kahtani et al., 2024). Furthermore, organizational cultures that promote technological and sustainable innovation with management support spurs employees to deliver improved business performance (Asiri et al., 2024). According to the literature of the past, there is a lack of studies that explore the impact of extra motivation and organizational culture on innovative performance in the educational setting. Even though the issue of job satisfaction has been researched upon as a significant variable, their mediating effect between extrinsic motivation, organizational culture and innovative performance has not been extensively examined. Lastly, there is a lack of research on Tabuk, where the extent to which these variables could interact with each other in unique ways may be due to social and cultural norms (Albeladi, 2024; Hassan et al., 2021). The research problem of this paper attempts to fill these research gaps through investigating the impacts of extrinsic motivation and organization culture on innovative performance using job satisfaction as a mediating variable. This study contributes to the literature by explaining how extrinsic motivation and organizational culture influence innovative performance through job satisfaction. It further offers practical lessons to the leaders and academicians to plan motivational systems and develop a culture that can foster innovation, which is in line with the socio-economic realities in Saudi Arabia.

2. Literature Review**2.1 Theoretical Foundation**

The Social Exchange Theory (SET) is a sociological and psychological theory that describes human relations as a sequence of exchanges in which individuals are interested in maximizing benefits and minimizing costs (Blau, 1964). Based on economic and behavioral principles, SET suggests that social behavior is a consequence of an exchange process that tries to receive rewards and escape punishments. The theory has also been broadly used in many aspects including sociology, psychology and in organizational studies to conceive the relationship among individuals and institutions (Cook & Emerson, 1987). Research has identified that employees who are driven through rewards stand a high chance of adopting creativity in solving problems and engaging in innovative practices (Amabile, 1996). Cropanzano & Mitchell (2005)

highlighted mutual interactions as the basis of the connection between organizational culture and employee engagement, and that enabling environments promote innovation. The current research employs SET to describe the effect of extrinsic motivation, organizational culture, and perceived support on the innovative performance of teachers in KSA with the help of job satisfaction, which serves as an intermediate variable. Applicability into the educational situation of KSA, the cultural focus on group accountability and hierarchical systems fits well with the concept of SET. The attitude of teachers towards support, fairness and rewards are likely to determine their actions according to the principles of reciprocity. Vision 2030 encourages the use of supportive organizational culture and motivational incentives to stimulate innovative performance of teachers, thus SET is a rather suitable prism to consider in the given study. Moreover, SET provides a theoretical premise on the interaction between extrinsic motivation, organizational culture, and job satisfaction as an influence in innovative performance. The fact that it dwells more on the issue of reciprocal exchanges underscores the need of organizational investments in establishing a setting that makes the teachers feel valued and which encourages them to innovate.

3. Hypotheses Development

3.1 Extrinsic Motivation and Innovative Performance

The research study shows that external rewards which include bonuses and recognition and promotions as extrinsic motivation, will lead to better innovation results because it drives employees to create new work methods (Pandya, 2024). The studies show that when employees receive external rewards and recognition, they develop better innovative work behavior because they receive real benefits and their creative work gets validated (Aldabbas et al., 2023). The research demonstrates that knowledge workers who receive external rewards will show increased innovative behavior because they perceive better organizational support and work engagement, which shows that external-driven motivation leads to creative work (Venkatesamy & Lew, 2022). The research shows that extrinsic motivation will produce negative effects on innovation results when it decreases intrinsic motivation (Islam et al., 2025). The educational system uses appropriate extrinsic motivators to help teachers develop new teaching methods. The research shows that extrinsic reward systems, which work together with intrinsic motivation, create complex patterns that lead to successful innovation implementation. The research findings support the following hypothesis:

H1: Extrinsic motivation has a significant impact on innovative performance.

3.2 Organizational Culture and Innovative Performance

Organizational culture shapes the psychological and social environment which affects employee creativity and innovation according to Ben Saad and Abbas (2018) and Fulmore et al. (2024). Organizations that establish open work environments together with collaborative methods for their employees who need to take risks while learning new things, achieve successful results in their innovative projects according to Anwer and Hyder (2024) and Senbeto et al. (2021). An organization needs to establish a flexible work environment which supports its workers through transformation activities because such conditions help develop new ideas and enable employees to take calculated business risks according to Borodako et al. (2023). Alkhodary (2023) demonstrates that educational institutions with positive organizational cultures report higher levels of employee well-being together with job satisfaction and creative output. Organizations develop their environmental organizational culture through three main elements which include their staff members' environmental knowledge and their staff members' beliefs about energy conservation and their staff members' sustainable organizational citizenship behavior according to Kantabutra (2021) and Tripathi (2024). The organizational culture system affects workplace environmental behavior by creating elements which require organizations to build cultural systems that support their sustainable initiatives according to Camacho et al. (2025). Green human resource management practices build this organizational culture which creates a positive impact on environmental performance and economic outcomes and this happens through green organizational culture and psychological climate according to Shah et al. (2021). The establishment of such a culture enables organizations to reach their sustainability objectives because it leads them to develop new environmental techniques which create value for their stakeholders according to Ketraprakorn and Kantabutra (2022). Thus, the organizational culture of an organization creates fundamental conditions which determine how employees will innovate their work environments. The aspect of organizational culture within schools creates a framework which guides teachers in their collaborative work, their process of sharing ideas, and their response to changes. Teachers develop new teaching methods and create innovative solutions to classroom problems because an open and supportive culture of their school enables them to do this. The research results lead to the following hypothesis which the study presents.

H2: Organizational culture has a significant impact on innovative performance.

3.3 Extrinsic Motivation and Job Satisfaction

Extrinsic motivation describes the behavior of people who complete their work because they expect to receive external rewards which include their salary and bonuses and public recognition and job security (Kumari et al., 2021). Job satisfaction, on the other hand, relates to how content an individual feels with their job, which different intrinsic and extrinsic factors create (Dagher et al., 2024). The study found that salary and job security and organizational policies performed as effective motivational tools, which helped to improve employee satisfaction (Karaferis et al., 2022). The use of compensation systems, which drive employees to work for external rewards, results in higher employee satisfaction through the improvement of their workplace mood and active participation (Zayed et al., 2022). The relationship between two variables creates a connection which does not show a direct pattern that leads to positive results. The research conducted at long-term care facilities for nurses discovered that although most nurses worked because of extrinsic motivation this motivation did not increase their work engagement and instead contributed to higher employee turnover because extrinsic rewards could not maintain job satisfaction or dedication to work (Zeng et al., 2022). People who experience extrinsic motivation to work face the danger that this external force will decrease their job satisfaction because their fundamental psychological needs for growth and autonomy face obstruction. Research indicates that extrinsic work values negatively predict need satisfaction at work and create psychological need frustration, which results in lower job satisfaction because it mediates this effect. The exclusive use of extrinsic rewards at work leads to people experiencing frustration, which results in their decreased satisfaction (Busque-Carrier et al., 2021). The research demonstrates that extrinsic motivation begins the process of engagement, which eventually leads to intrinsic motivation through self-compassion, which facilitates this transition, according to educational studies on students (Kotera et al., 2021). Teachers can receive rewards from schools such as salary, bonuses, promotions, recognition, and job security. These types of external rewards have the ability to impact how teachers feel about their job; thus, extrinsic motivation is a key factor for influencing teachers' overall job satisfaction. Based on the literature, the study proposed the following hypothesis:

H3: Extrinsic motivation has a significant impact on job satisfaction.

3.4 Organizational Culture and Job Satisfaction

The relationship between organizational culture and job satisfaction exists as a positive connection since organizational culture functions as the primary factor that determines how satisfied employees will be with their work. Research has shown that organizational culture serves as a vital factor that determines job satisfaction because improved workplace culture and communication systems together with better working conditions create an environment that increases satisfaction levels among nurses and medical staff members (D'Silva et al., 2024). Multiple research studies demonstrate that organizational culture creates a direct connection to job satisfaction because it shapes both the standard of workplace interactions and the overall work atmosphere (Iqbal et al., 2017; Rathi & Srivastava, 2024). Organizational cultures that fail to create environments for teamwork and organizational backing and employee involvement generate higher stress levels which result in decreased worker performance and decreased work satisfaction (Jung & Kim, 2022). The organizational culture acts as a mediator between sustainable talent management practices and job

satisfaction because it plays a key role in making employees happier through its effect on workplace environments and processes (Saleh & Atan, 2021). The national culture together with sustainable HR practices establishes employee identification with the organization which then determines how organizational culture affects job satisfaction because cultural effects differ depending on contextual factors (Wojtczuk-Turek et al., 2024). The positive changes to organizational culture together with better work processes and suitable workplace conditions create a decrease in workplace stress which results in higher job satisfaction and better overall organizational performance and quality. The research demonstrates that when organizational culture shows weakness, it leads to increased employee burnout and stress, which results in decreased job satisfaction and worker health (Hoxha et al., 2024). The research found that low organizational cultures which lack positive elements lead to increased employee stress and burnout which results in decreased job satisfaction and employee health (D'Silva et al., 2024). A healthy culture exists which helps teachers achieve greater job satisfaction and better work performance. Based on the findings, the study proposes the hypothesis following:

H4: Organizational culture has a significant impact on job satisfaction.

3.5 Job Satisfaction and Innovative performance

The connection between job satisfaction and innovative performance shows positive results which exist through multiple organizational and psychological pathways. Job satisfaction and innovative performance together create better results for both individuals and organizations because satisfied workers show higher tendency to develop innovations which drive better performance and competitive edge (Adi Pracoyo et al., 2022; Paliga et al., 2022). Employee satisfaction creates three essential elements for workplace creativity and innovation which include motivation and autonomy and employee engagement (Fernández-Portillo et al., 2024; Lu et al., 2022). Employees who experience job dissatisfaction will experience reduced motivation which creates an obstacle to their ability to innovate because dissatisfaction directly hampers their capacity to produce innovative work (Gazi et al., 2024). Job satisfaction creates an environment where employees develop the belief that they hold power to innovate while protecting their work commitments. The cycle of job satisfaction and innovative performance creates a positive loop which supports ongoing development that works in rapidly changing work settings (Kumari et al., 2022). The process of increasing teachers job satisfaction shows essential importance for developing their capacity to create innovative educational solutions. The study presents the following hypothesis based on its findings.

H5: Job satisfaction has a significant impact on innovative performance.

3.6 The Mediating Effect of Job Satisfaction

The psychological process that connects these elements to employee innovative work performance acts as a mediator which job satisfaction functions to link extrinsic motivation with organizational culture and innovative performance. The research demonstrated that job satisfaction serves as a mediator which connects organizational elements excluding leadership and learning organizational culture to employee performance in both innovative and adaptive capacities (Cao et al., 2024; Katsaros, 2024). Intrinsic motivation for innovation combines with extrinsic rewards to create synergistic effects which increase creative output (Aldabbas et al., 2023, Islam et al., 2025). Non-monetary rewards associated with emotional salary, such as recognition, support, and positive interpersonal interactions, enhance intrinsic motivation, which not only bolsters satisfaction but also the willingness to engage adaptively at work (Hua et al., 2019; Kumari et al., 2021; Kuvaas et al., 2020). This intrinsic motivation serves as a mediator between compensation systems broadly and employee satisfaction, showing that affective components. Employees express their opinions through both monetary and recognition rewards because these incentives create a secure work environment which helps employees build connections with the organization (Mowbray et al., 2024). Total reward system implementation affects Generation Z employees' job satisfaction and productivity because this generation assesses their worth based on both monetary rewards and self-development opportunities (Tarigan et al., 2022). The research demonstrates that organizations which emphasize rewards and performance orientation within their culture achieve better knowledge management results because their culture creates workplaces which foster employee dedication and productivity (Tabatabaei, 2024).

Positive organizational climates create conditions which help employees build emotional ties and work motivation. This situation leads to better creative work because employees feel excited to explore their innovative capabilities (Alkhodary, 2023). Creative work needs motivational power which people fail to achieve when they work in spaces that limit their ability to decide (Bledow et al., 2021; Guo et al., 2021). The performance appraisal process serves to identify employee strengths and weaknesses which create a positive work environment. However, employee dissatisfaction with appraisal systems decreases this process's positive impact (Dasanayaka et al., 2021). Nurses experience job satisfaction when their work environment provides them with rewards and community access and fairness and organizational values which create a supportive workplace culture (Tomaszewska et al., 2024). The relationship between transactional leadership and employee performance gets mediated by the combination of contingent rewards and employee engagement. Although rewards do not directly boost performance, their impact on employee engagement works through vigor and dedication which leads to better results (Layek & Koodamara, 2024). The combination of financial rewards and non-financial rewards together with different leadership styles determines how employees feel about their jobs and their work output. Yet, in certain instances, financial rewards function as negative elements which disrupt the connection between leadership and performance results (Chi et al., 2023). The combination of extrinsic motivation with organizational culture does not lead to direct effects on innovative performance within this environment. The process starts with external factors which boost teacher job satisfaction. The result creates a path toward innovative performance. The research demonstrates that job satisfaction functions as a crucial psychological link which connects organizational practices with innovation results. The study proposes its hypotheses which follow from the research findings.

H6: Job satisfaction mediates the relationship between extrinsic motivation and innovative performance.

H7: Job satisfaction mediates the relationship between organizational culture and innovative performance.

4. Conceptual Framework

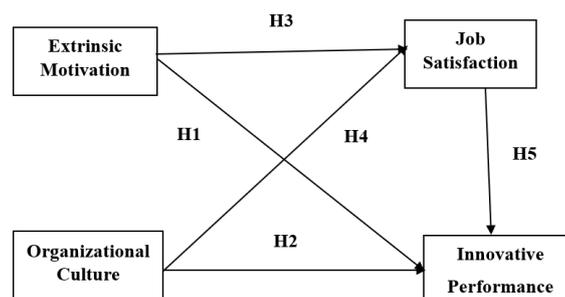


Figure 1: Conceptual Model

5. Research Methodology

The research method used in this study was quantitative where the researchers focused on the relationship between extrinsic motivation and organizational culture and the innovative performance, which was mediated by job satisfaction. Quantitative approach was also chosen because it offers objective measurement of variables and hypothesis testing to use the application of statistical methods. The research design used was cross-sectional and entailed the collection of data at one point. It is a good design that is adapted to study relationship among variables efficiently and that is widely applied in organization and behavior studies. The sampling population was the teachers of the schools of Tabuk region of the Kingdom of Saudi Arabia, and the list of teachers was taken according to the official documents issued by the Ministry of Education of KSA. The reason teachers were selected as the participants is that they are a key factor in the educational innovation, and their views concerning the motivational aspect, organizational culture, and job satisfaction are relevant to the research. Participants were selected using simple random sampling so that every teacher stood on an equal footing with respect to selection. The table by Krejcie and Morgan (1970) was used in determining the sample size. The distribution of the questionnaires has led to the amount of 460 questionnaires, with 391 being usable, thus the response rate was 85%, which is regarded high and appropriate in quantitative research. Structural Equation Modeling (SEM) was used in the analysis of the collected data. SEM enables the two variables to be tested and the mediating effect of job satisfaction as well. It also allows the determination of the model fit, reliability and validity whereby the results are robust and meaningful in the hypothesis testing.

5.1 Measures

The eight-item extrinsic motivation scale measured extrinsic motivation based on the adaptation of Tsao and Wang (2014) and Dundenar et al. (2007). The organizational culture was assessed by seven items that were modified and derived on the basis of Cameron and Quinn (1999). The measure of job satisfaction was based on 6 items modified by McLean (1979) and Scarpello and Campbell (1983). Eight items were adjusted in order to measure innovative performance through Janssen (2001) and Kanter (1988) items. All the items were rated using a five-point Likert scale, where 1 (strongly disagree) was used as the lowest point and 5 (strongly agree) the highest point. These measurement scales have been modified based on the past researches to make them reliable and valid in the context of the present research.

6. Results

Table 1 shows the demographic information which defines the characteristics of the study participants. The research team included 315 male participants who represented 80.8% of the total sample while 75 female participants made up 19.2% of the sample group. The 31-38 age group contained the most respondents who made up 37.2% of the total while 33.1% of respondents stayed in the 23-30 age range and 21.0% of respondents belonged to the 39-46 age group and 6.9% of respondents stayed in the over 47 age group which showed that most respondents showed young to middle-aged characteristics. Most respondents reported being married which accounted for 75.1% of the total while 24.9% of respondents identified as single. The sample population showed an almost equal distribution between postgraduate degree holders (50.5%) and undergraduate/honors degree holders (49.5%) which created a highly educated sample. The largest group of participants showed experience between 1 and 5 years at 36.7% and 6 to 10 years at 34.6% while 22.3% of participants had 11 to 15 years of experience and 6.4% of participants had more than 16 years of experience. The sample group mainly included male teachers who had married status and high educational qualifications and worked in their first to middle professional experience.

Table 1. Demographic Profile

Variables	Category	Frequency	Percent
Gender	Male	315	80.8
	Female	75	19.2
Age	23-30 Years	129	33.1
	31-38 Years	145	37.2
	39-46 Year	82	21.0
	Above 47 Years	16	6.9
Marital Status	Married	293	75.1
	Unmarried	97	24.9
Education	Undergraduate /Honors	193	49.5
	Postgraduate	197	50.5
Experience	01-05 Year	143	36.7
	6- 10 Year	135	34.6
	11-15 Years	87	22.3
	Above 16 Years	25	6.4

Table 2 displays the factor loadings together with composite reliability (CR) and average variance extracted (AVE) results for all constructs. Hair et al. (2023) state that factor loadings need to exceed 0.70 for valid results but acceptable results can exist with values between 0.60 and 0.60. The study found that innovative performance showed factor loadings which ranged from 0.706 to 0.757. The study found that extrinsic motivation showed loadings which ranged from 0.625 to 0.747. EM7 showed a lower value of 0.625 but it still remained within acceptable limits. Job satisfaction showed strong loadings which ranged from 0.784 to 0.840. Organizational culture showed loadings which ranged from 0.652 to 0.774 which were also acceptable. The composite reliability values exceeded the recommended limit of 0.70 with results ranging from 0.776 to 0.859. The assessment showed job satisfaction as the most dependable variable with CR 0.859 followed by organizational culture with CR 0.822 and extrinsic motivation with CR 0.801 and innovative performance with CR 0.776. These results show good internal consistency reliability. The AVE values ranged from 0.503 to 0.670 which surpassed the established minimum requirement of 0.50. Job satisfaction achieved the highest AVE with 0.670 while organizational culture reached 0.537 and innovative performance attained 0.536 and extrinsic motivation achieved 0.503. The results indicate that all constructs possessed adequate convergent validity. The results confirm that the measurement model has satisfactory convergent validity and reliability as recommended by Hair et al. (2023).

Table 2. Reliability and Validity Test

Variables	Items	Factor Loadings	Composite Reliability	AVE
Innovative Performance	IP2	0.706	0.776	0.536
	IP3	0.757		
	IP5	0.731		
Extrinsic Motivation	EM1	0.739	0.801	0.503
	EM2	0.720		
	EM4	0.747		
	EM7	0.625		
Job Satisfaction	JS2	0.840	0.859	0.670
	JS3	0.830		
	JS4	0.784		
Organizational Culture	OC2	0.774	0.822	0.537
	OC3	0.760		
	OC6	0.738		
	OC7	0.652		

The HTMT ratio testing method for discriminant validity assessment appears in Table 3. Henseler et al. (2015) and Hair et al. (2023) established that HTMT values must remain below 0.85 or 0.90 to establish discriminant validity. The study produced HTMT values which ranged between 0.721 and 0.898. The experiment showed all values-maintained levels below the established acceptable limit of 0.90. The results demonstrate that all constructs in the study maintain complete separation from one another. The researchers established discriminant validity through their successful demonstration of distinct tests.

Table 3. Heterotrait–Monotrait (HTMT) Ratio

Constructs	EM	IP	JS	OC
EM				
IP	0.764			
JS	0.836	0.721		
OC	0.898	0.811	0.739	

Table 4 shows the results of checking for multicollinearity using the Variance Inflation Factor (VIF). The model accuracy gets affected when predictor variables show high intercorrelation because this relationship between variables creates multicollinearity. According to Hair et al. (2023), VIF values below 5.0 mean there are no major multicollinearity problems, and values below 3.3 are ideal for PLS-SEM analysis. The VIF values for all items showed results between 1.152 and 1.573 which are well below the established maximum. The indicators for extrinsic motivation, innovative performance, job satisfaction, and organizational culture show no signs of multicollinearity according to this assessment. The model's components function as separate entities because they do not share any overlapping functions between them. The model has successfully met collinearity standards, which establishes the analysis's validity and reliability.

Table 4. Variance Inflation Factor (VIF)

Constructs	VIF Value	Remark
EM1	1.255	No collinearity issue
EM2	1.257	No collinearity issue
EM4	1.369	No collinearity issue
EM7	1.214	No collinearity issue
IP2	1.180	No collinearity issue
IP3	1.152	No collinearity issue
IP5	1.171	No collinearity issue
JS2	1.531	No collinearity issue
JS3	1.573	No collinearity issue
JS4	1.458	No collinearity issue
OC2	1.375	No collinearity issue
OC3	1.451	No collinearity issue
OC6	1.398	No collinearity issue
OC7	1.199	No collinearity issue

Table 5 displays the R² values which measure the model's constructs. The R² value indicates the percentage of changes which the predictor variables can explain. According to Hair et al. (2021), R² values of 0.75, 0.50, and 0.25 mean strong, moderate, and weak explanatory power, respectively. The R² value for innovative performance (IP) stands at 0.342. Extrinsic motivation together with organizational culture and job satisfaction accounts for 34.2% of the variations in innovative performance. The results demonstrate predictive accuracy which falls between high and low levels. The R² value for job satisfaction (JS) measures 0.411. The researchers found that extrinsic motivation together with organizational culture accounts for 41.1% of the variations in job satisfaction which demonstrates moderate to strong explanatory power.

Table 5. The Results of R²

Constructs	R-square	Interpretation
Innovative performance (IP)	0.342	Moderate explanatory power
Job Satisfaction (JS)	0.411	Moderate explanatory power

Table 6 displays the effect size (f²) results through its presented data. The effect size results show which external factors impact innovative performance (IP) to what extent. The f² value shows how much each factor helps explain the changes in the main variable when added to the model. According to Cohen (1988) the f² values which range from 0.02 to 0.15 and 0.35 demonstrate different effect sizes which include small and medium and large effects. The results show that extrinsic motivation (EM) has an f² value of 0.161 which means it has a medium effect on innovative performance. Extrinsic motivation proves to be essential for enhancing teachers' innovative performance according to this research. The f² value for organizational culture (OC) shows a medium effect through its measurement of 0.267. The presence of a supportive organizational culture creates substantial benefits for enhancing innovative performance. The f² value of job satisfaction (JS) measures at 0.329 which falls between medium and large effect. The research identified this factor as the most significant determinant of innovative performance in all tested factors. Teachers require job satisfaction because it serves as a vital force which drives their innovative work.

Table 6. F² Effect Size

Construct	Innovative Performance (IP)	Effect Size
Extrinsic Motivation (EM)	0.161	Medium effect
Job Satisfaction (JS)	0.329	Medium to large effect
Organizational Culture (OC)	0.267	Medium effect

The Q²predict method was used to see how well the model can predict new data. Hair et al. (2023) state that Q²predict values which exceed zero demonstrate model capabilities for predictive accuracy. Table 7 shows that innovative performance (IP) had a Q²predict value of 0.297 which means it predicts well. Job satisfaction (JS) had a Q²predict value of 0.396 which also means good prediction. The model demonstrates strong capability to predict both innovative performance and job satisfaction according to these results. The values for IP (RMSE 0.843 MAE 0.624) and JS (RMSE 0.781 MAE 0.589) show that prediction errors fall within acceptable limits. The system achieves maximum precision when its error values reach their lowest point. The findings confirm that the model predicts well.

Table 7. Predictive Relevance-Q²

Constructs	Q ² predict	RMSE	MAE
IP	0.297	0.843	0.624
JS	0.396	0.781	0.589

Table 8 presents the outcomes from both the structural model assessment and the evaluation of the proposed hypotheses. The t-statistics and p-values together with path coefficients (β) provide the necessary tools to determine whether the tested relationships between constructs reach a statistically significant level. Hair et al. (2023) state that a hypothesis gets validation through two conditions which require the t-value to exceed 1.96 and the p-value to go below 0.05. The study demonstrates that extrinsic motivation has a positive impact on innovative performance, which results in a β of 0.158 and a t value of 2.186 and a p value of 0.029, thus confirming H1. Teachers who receive higher levels of extrinsic motivation will show better results in their innovative performance. Extrinsic motivation leads to better job performance for employees according to H2 which shows a positive relationship between both factors ($\beta = 0.438$, $t = 6.887$, $p = 0.000$). Extrinsic motivation plays a crucial role in increasing teachers' job satisfaction because of its fundamental value. The relationship between job satisfaction and innovative performance shows a positive link which results in ($\beta = 0.217$, $t = 3.586$, $p = 0.000$) that proves H3. The study shows that teachers who experience greater job satisfaction tend to engage in more innovative work activities. The research demonstrates that organizational culture drives innovative performance through its positive effect which results in ($\beta = 0.312$, $t = 4.570$, $p = 0.000$) that supports H4. The evidence proves that an organizational culture which provides support will enhance the innovative capabilities of teachers. Organizational culture shows a positive impact on job satisfaction according to the research results which found ($\beta = 0.274$, $t = 3.947$, $p = 0.000$) that supports H5. The findings indicate that a positive organizational culture leads to increased job satisfaction among employees. The study confirms all hypotheses because both extrinsic motivation and organizational culture show a major effect on job satisfaction and innovative performance.

Table 8. Hypotheses Testing – Direct Effects

Hypotheses	Paths	Beta (β)	Standard Deviation	T Statistics	P Values	Decision
H1	EM -> IP	0.158	0.072	2.186	0.029	Supported
H2	OC -> IP	0.312	0.068	4.570	0.000	Supported
H3	EM -> JS	0.438	0.063	6.887	0.000	Supported
H4	OC -> JS	0.274	0.069	3.947	0.000	Supported
H5	JS -> IP	0.217	0.061	3.586	0.000	Supported

Table 9 shows the mediation analysis results which demonstrate how extrinsic motivation and organizational culture affect innovative performance through their impact on job satisfaction. The researchers used bootstrapping with SmartPLS to evaluate the mediation effects. The testing requires a t-value exceeding 1.96 and a p-value below 0.05 to confirm pathway significance according to Hair et al. 2023 The research shows that extrinsic motivation creates an indirect path to innovative results through job satisfaction which supports H5. The research shows that job satisfaction functions as a partial mediator between extrinsic motivation and innovative performance. The research shows that organizational culture creates an indirect pathway to innovative performance through job satisfaction which supports H6. The study shows that job satisfaction functions as a partial mediator between organizational culture and innovative performance. The analysis shows that job satisfaction functions as the vital link which connects both extrinsic motivation and organizational culture to teachers' innovative performance.

Table 9. Mediating Analysis (Indirect Effects)

Hypotheses	Paths	Beta (β)	Standard deviation	T Statistics	P Values	Decision
H6	EM -> JS -> IP	0.095	0.030	3.119	0.002	Supported
H7	OC -> JS -> IP	0.060	0.023	2.547	0.011	Supported

7. Discussion

The results of the study provide strong empirical evidence to support the proposed relationships highlighting the importance of the extrinsic motivation, organizational culture and job satisfaction in predicting innovative performance in teachers and have implications on environmental issues. The researchers observed that extrinsic motivation had a positive impact on the innovative performance (H1). The given result corroborates the previous studies indicating that external rewards, recognition, and performance-based benefits can provoke creative and innovative behaviour at the workplace (Amabile et al., 1996; Deci et al., 2017). The findings reveal the perception of greater levels of extrinsic motivation among teachers who tend to engage in new teaching practices and find innovative ways to address educational issues. Also, the research has discovered that extrinsic motivation has a significant positive relationship with job satisfaction (H3). This finding complies with the recent research suggesting that rewards and favorable work environments can positively impact the job satisfaction of teachers (Baroudi et al., 2022; Dorta-Afonso, 2025). The results indicate that a teacher should feel valued and supported and will have an increased level of job satisfaction that will result in an increased engagement and retention rate in a school. Another direct positive impact of organizational culture on innovative performance and job satisfaction was also identified by the study (H2 and H4). This observation concurs with the recent literature on the statement that knowledge sharing and experimentation and risk-taking are fostered by supportive and flexible organizational cultures (Schein, 2010; Demastus et al., 2025). The culture of collaboration, open communication, and professional development contributes to establishing the environment in which the teachers feel psychologically secure to innovate and share the new ideas. Noticeably, the organizational cultures that consider environmental sustainability can encourage teacher participation in environmentally conversant programs, green initiatives and environmental responsibility on the school level. It was concluded that job satisfaction is a significant predictor of innovative performance, which implies that satisfied teachers have a higher probability of demonstrating innovative performance (H5). This result is similar to the literature that has shown that job satisfaction promotes psychological well-being, intrinsic motivation, and readiness to engage in new ideas (Utami et al., 2026; Oven and Domajnko, 2021). Happy teachers are more dedicated and active and this positive attitude in work is reflected in innovative teaching activities such as coming up with new methods of environmental education and sustainability projects. Concerning mediation, the findings indicate that job satisfaction mediates the correlation between the two extrinsic motivation, and innovative performance (H6), as well as organizational culture and innovative performance (H7) moderately. This implies that extrinsic motivation and organizational culture have both direct and indirect effects on innovative performance, with some of their effect acting via job satisfaction of teachers. Recent research upholds this mediating position because, in the identified literature, the concept of job satisfaction is emphasized as a psychological process that links workplace environments to performance results (Bakker et al., 2014; Liu et al., 2022). Satisfied teachers do not only feel more motivated but also more engaged and resilient, a factor that increases their creative performance overall and the ability to deal with environmental problems like the promotion of resource conservation and the minimization of waste and incorporation of sustainability concepts in the teaching practices. Additionally, the outcome of the R^2 shows that the structural model is strong enough to predict since the independent variables are not only great determiners of job satisfaction but also innovative performance. These results support the ability of the model to explain and predict the correlation between the study constructs. The f-square outcomes also support the fact that extrinsic motivation, organizational culture, and job satisfaction can have significant and strong influence on innovative performance, but the job satisfaction has the strongest influence among the structural model results.

8. Implications

The research adds a contribution to the Social Exchange Theory (SET) (Blau, 1964) through the analysis of educational innovation and environmental sustainability. According to SET, when there is good exchange between individuals and their organizations, there are mutual behaviors. The proposed model introduced in the study links motivation, culture and satisfaction with innovation and sustainability. The findings indicate that job satisfaction is sensitive to external motivation and organizational culture which subsequently enhances the innovative performance of the teachers. These findings can be used to justify SET because they demonstrate that teachers are motivated through supportive practices and incentives to be innovative and environmentally conscious. The paper also demonstrates that job satisfaction plays a significant role in transforming organizational and environmental actions into innovation. In practice, the results indicate that academic people can develop training modules using rewards and sustainability consciousness, school administration ought to establish nurturing cultures and appraise the work of teachers, and policy makers could establish incentive-based systems to improve interest and environmentally friendly innovations.

9. Limitations and Future Research

This research has a number of limitations. To start with, the adoption of a cross-sectional design does not allow drawing conclusions on causation. Additional studies in the future can be done using longitudinal or experimental research methods to better explain cause and effect relationships. Secondly, the researchers only focused on school teachers in one region and thus the findings might not be generalized. Further studies must take into account teachers who belong to different regions and schools of various types. Thirdly, it uses self-reported information that has a possibility of bias. The evaluation by supervisors or peers as multi-source data could help to increase the accuracy of the results. Finally, sustainability of the environment was discussed not directly in the study. Future research can directly look into the eco-innovation and green teaching practices to attempt the effects of motivation and culture on the creation of environmentally sustainable innovation.

Conclusion

The research examined how external motivation and organizational culture shape teachers' ability to innovate, while job satisfaction functioned as a mediator and they studied environmental sustainability. The results demonstrated that the study established all direct and indirect connections between variables, which proved that external motivation together with organizational culture, increases job satisfaction, which then leads to better innovative performance. The research established that Social Exchange Theory (SET) received validation through the relationships between the investigated variables. The study established a new conceptual model that connects motivation and culture along with satisfaction to results in innovation and sustainability. The research study provides practical advice for academic professionals, educational administrators, and government decision makers, who need to understand that training programs and supportive work environments and reward systems create a foundation for organizations to develop innovative solutions while implementing environmentally friendly practices. The researchers should conduct future studies using longitudinal research methods, which include data from multiple sources, to examine eco-innovation, which will help establish better generalizability and real-world applicability.

References

1. Alkhodary, D. A. (2023). Exploring the Relationship between Organizational Culture and Well-Being of Educational Institutions in Jordan. *Administrative Sciences*, 13(3), 92. <https://doi.org/10.3390/admsci13030092>.
2. Aldabbas, H., Pinnington, A., Lahrech, A., & Blaique, L. (2023). Extrinsic rewards for employee creativity? The role of perceived organisational support, work engagement and intrinsic motivation. *International Journal of Innovation Science*, 17(2), 237–260. <https://doi.org/10.1108/ijis-08-2022-0165>.
3. Al Doghhan, M. A., Abdelwahed, N. A. A., Soomro, B. A., & Ali Alayis, M. M. H. (2022). Organizational Environmental Culture, Environmental Sustainability and Performance: The Mediating Role of Green HRM and Green Innovation. *Sustainability*, 14(12), 7510. <https://doi.org/10.3390/su14127510>.
4. Adi Pracoyo, N., Tubastuvi, N., Santoso, S. B., & Wahyuni, S. (2022). Determinants of employee performance: The mediating role of job satisfaction. *International Journal of Research in Business and Social Science* (2147- 4478), 11(2), 144–156. <https://doi.org/10.20525/ijrbs.v11i2.1595>
5. Al Shammre, A. S., Alshebami, A. S., Ali Seraj, A. H., Elshaer, I. A., & Al Marri, S. H. (2023). Unleashing environmental performance: The impact of green entrepreneurial motivation on small enterprises. *Frontiers in Environmental Science*, 11. <https://doi.org/10.3389/fenvs.2023.1176804>.
6. Alharbi, G. L., & Aloud, M. E. (2024). The effects of knowledge management processes on service sector performance: evidence from Saudi Arabia. *Humanities and Social Sciences Communications*, 11(1). <https://doi.org/10.1057/s41599-024-02876-y>.
7. Al-Kahtani, S. M., Senan, N. A. M., Alanazi, I. D., Badawi, M., & Almulaiki, W. A. (2024). Exploring strategic decision making as a mediator between enterprise resource planning, innovation, strategic planning, and organizational performance. *Discover Sustainability*, 5(1). <https://doi.org/10.1007/s43621-024-00532-8>
8. Alsaied, M. K., & Alkhoraif, A. A. (2024). The role of organizational learning and innovative organizational culture for ambidextrous innovation. *The Learning Organization*, 31(2), 205–226. <https://doi.org/10.1108/tlo-06-2023-0101>.
9. Asfahani, A. M. (2023). Green HRM and Servant Leadership: Driving Competitive Advantage and Environmental Performance in Higher Education. *Sustainability*, 15(10), 7921. <https://doi.org/10.3390/su15107921>.
10. Asiri, A. M., Al-Somali, S. A., & Maghrabi, R. O. (2024). The Integration of Sustainable Technology and Big Data Analytics in Saudi Arabian SMEs: A Path to Improved Business Performance. *Sustainability*, 16(8), 3209. <https://doi.org/10.3390/su16083209>.
11. Anwer, S., & Hyder, M. (2024). Navigating sustainable innovation: exploring the interplay between workplace happiness and the dynamics of leadership, empowerment and organizational culture in the context of green management and circular economy. *The Asian Bulletin of Green Management and Circular Economy*, 4(1), 44–61. <https://doi.org/10.62019/abgmce.v4i1.61>.
12. Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of management journal*, 39(5), 1154–1184.
13. Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39(5), 1154–1184.
14. Amabile, T. M. (1996). *Creativity and innovation in organizations* (Vol. 5, pp. 239-396). Boston: Harvard Business School.
15. Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD–R approach. *Annual review of organizational psychology and organizational behavior*, 1(2014), 389–411.
16. Ben Saad, G., & Abbas, M. (2018). The impact of organizational culture on job performance: a study of Saudi Arabian public sector work culture. *Problems and Perspectives in Management*, 16(3), 207–218. [https://doi.org/10.21511/ppm.16\(3\).2018.17](https://doi.org/10.21511/ppm.16(3).2018.17).
17. Blau, P. M. (1964). *Exchange and power in social life*. New York: Wiley.
18. Busque-Carrier, M., Ratelle, C. F., & Le Corff, Y. (2021). Work Values and Job Satisfaction: The Mediating Role of Basic Psychological Needs at Work. *Journal of Career Development*, 49(6), 1386–1401. <https://doi.org/10.1177/08948453211043878>.
19. Basahel, A. M. (2021). Safety Leadership, Safety Attitudes, Safety Knowledge and Motivation toward Safety-Related Behaviors in Electrical Substation Construction Projects. *International Journal of Environmental Research and Public Health*, 18(8), 4196. <https://doi.org/10.3390/ijerph18084196>.
20. Baroudi, S., Tamim, R., & Hojejj, Z. (2022). A quantitative investigation of intrinsic and extrinsic factors influencing teachers' job satisfaction in Lebanon. *Leadership and policy in schools*, 21(2), 127–146.
21. Cao, T. H. V., Chai, D. S., Nguyen, L. P., Nguyen, H. T. H., Han, C. S.-H., & Park, S. (2024). Learning organization and employee performance: the mediating role of job satisfaction in the Vietnamese context. *The Learning Organization*, 32(7), 53–73. <https://doi.org/10.1108/tlo-09-2023-0177>
22. Camacho, L. J., Banks, M., Sookhai, S., & Concepción, E. (2025). Redimensioning the Theory of Planned Behavior on Workplace Energy Saving Intention: The Mediating Role of Environmental Knowledge and Organizational Culture. *Sustainability*, 17(8), 3574. <https://doi.org/10.3390/su17083574>.

23. Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of management*, 31(6), 874-900.
24. Cook, K. S., & Emerson, R. M. (1987). Social exchange theory. *Newbury Park*.
25. Chipunza, C., & Malo, B. (2017). Organizational culture and job satisfaction among academic professionals at a South African university of technology. *Problems and Perspectives in Management*, 15(2), 148–161. [https://doi.org/10.21511/ppm.15\(2\).2017.14](https://doi.org/10.21511/ppm.15(2).2017.14).
26. Chi, H., Vu, T. V., Nguyen, H. V., & Truong, T. H. (2023). How financial and non-financial rewards moderate the relationships between transformational leadership, job satisfaction, and job performance. *Cogent Business & Management*, 10(1), 2173850. <https://doi.org/10.1080/23311975.2023.2173850>.
27. Cameron, K. S. (2011). Diagnosing and changing organizational culture: Based on the competing values framework.
28. Dasanayaka, C. H., Abeykoon, C., Ranaweera, R. A. A. S., & Koswatte, I. (2021). The Impact of the Performance Appraisal Process on Job Satisfaction of the Academic Staff in Higher Educational Institutions. *Education Sciences*, 11(10), 623. <https://doi.org/10.3390/educsci11100623>
29. Dagher, J., Boustani, N. M., & Khneyzer, C. (2024). Unlocking HRM Challenges: Exploring Motivation and Job Satisfaction within Military Service (LAF). *Administrative Sciences*, 14(4), 63. <https://doi.org/10.3390/admsci14040063>.
30. D'Silva, R., Balakrishnan, J. M., Bari, T., Verma, R., & Kamath, R. (2024). Unveiling the Heartbeat of Healing: Exploring Organizational Culture in a Tertiary Hospital's Emergency Medicine Department and Its Influence on Employee Behavior and Well-Being. *International Journal of Environmental Research and Public Health*, 21(7), 912. <https://doi.org/10.3390/ijerph21070912>.
31. Dundas, L., Binder, P., Hansen, T. G. B., & Stige, S. H. (2017). Does a short self-compassion intervention for students increase healthy self-regulation? A randomized control trial. *Scandinavian Journal of Psychology*, 58(5), 443- 450.
32. Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-determination theory in work organizations: The state of a science. *Annual review of organizational psychology and organizational behavior*, 4, 19-43.
33. Demastus, J., Ohsowski, B. M., & Landrum, N. E. (2025). Exploring the nexus of organisational culture and sustainability for green innovation. *Industry and Innovation*, 32(1), 108-138.
34. Fulmore, J. A., Nimon, K., & Reio, T. (2024). The role of organizational culture in the relationship between affective organizational commitment and unethical pro-organizational behavior. *Journal of Managerial Psychology*, 39(7), 845–862. <https://doi.org/10.1108/jmp-11-2022-0581>
35. Fernández-Portillo, A., Ramos-Vecino, N., Ramos-Mariño, A., & Cachón-Rodríguez, G. (2024). How the digital business ecosystem affects stakeholder satisfaction: its impact on business performance. *Review of Managerial Science*, 18(9), 2643–2662. <https://doi.org/10.1007/s11846-023-00720-2>
36. Gazi, M. A. I., Yusof, M. F., Islam, M. A., Amin, M. B., & Senathirajah, A. R. B. S. (2024). Analyzing the impact of employee job satisfaction on their job behavior in the industrial setting: An analysis from the perspective of job performance. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(4), 100427. <https://doi.org/10.1016/j.joitmc.2024.100427>.
37. Guo, M., Ahmad, N., Adnan, M., Scholz, M., Khalil-Ur-Rehman, K.-U.-R., & Naveed, R. T. (2021). The Relationship of CSR and Employee Creativity in the Hotel Sector: The Mediating Role of Job Autonomy. *Sustainability*, 13(18), 10032. <https://doi.org/10.3390/su131810032>
38. Gerhart, B., & Fang, M. (2015). Pay, Intrinsic Motivation, Extrinsic Motivation, Performance, and Creativity in the Workplace: Revisiting Long-Held Beliefs. *Annual Review of Organizational Psychology and Organizational Behavior*, 2(1), 489–521. <https://doi.org/10.1146/annurev-orgpsych-032414-111418>.
39. Hassan, H., Abdelkader, A., Alhaimer, R., & Abdelkader, M. (2021). Moderating role of gender in influencing enterprise performance in emerging economies: Evidence from Saudi Arabian SMEs sector. *Problems and Perspectives in Management*, 19(3), 148–161. [https://doi.org/10.21511/ppm.19\(3\).2021.13](https://doi.org/10.21511/ppm.19(3).2021.13)
40. Hoxha, G., Simeli, I., Theocharis, D., Vasileiou, A., & Tsekouropoulos, G. (2024). Sustainable Healthcare Quality and Job Satisfaction through Organizational Culture: Approaches and Outcomes. *Sustainability*, 16(9), 3603. <https://doi.org/10.3390/su16093603>.
41. Hulkova, V., Kilikova, M., & Sabo, S. (2024). Organizational Culture of Health Care Facility as a Predictor of the job Satisfaction of Nurses. *Clinical Social Work and Health Intervention*, 15(2), 32–36. https://doi.org/10.22359/cswhi_15_2_06.
42. 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.
43. Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research methods in applied linguistics*, 1(3), 100027.
44. Hua, Y., Cheng, X., Hou, T., & Luo, R. (2019). Monetary Rewards, Intrinsic Motivators, and Work Engagement in the IT-Enabled Sharing Economy: A Mixed-Methods Investigation of Internet Taxi Drivers*. *Decision Sciences*, 51(3), 755–785. <https://doi.org/10.1111/dec.12372>
45. Hair Jr, J., Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2023). *Advanced issues in partial least squares structural equation modeling*. SAGE publications.
46. Islam, M. A., Islam, M. A., Amin, M. B., Hossain, M. M., Hassan, M. S., Afrin, S., & Oláh, J. (2025). Enhancing academic's performance: Exploring the interaction of innovative work behavior, intrinsic motivation, and self-efficacy in public universities. *Social Sciences & Humanities Open*, 12, 102210.
47. Iqbal, S., Guohao, L., & Akhtar, S. (2017). Effects of Job Organizational Culture, Benefits, Salary on Job Satisfaction Ultimately Affecting Employee Retention. *Review of Public Administration and Management*, 5(3). <https://doi.org/10.4172/2315-7844.1000229>.
48. Jang, E., & Kim, Y. C. (2025). Autonomy Constrained: The Dynamic Interplay Among Job Autonomy, Work Engagement, and Innovative Behavior Under Performance Pressure. *Administrative Sciences*, 15(3), 97. <https://doi.org/10.3390/admsci15030097>.
49. Janićević, N., Nikčević, G., & Vasić, V. (2018). The influence of organizational culture on job satisfaction. *Economic Annals*, 63(219), 83-114.
50. Janssen, O. (2001). Fairness perceptions as a moderator in the curvilinear relationships between job demands, and job performance and job satisfaction. *Academy of Management Journal*, 44(5), 1039–1050. Janssen, O. (2000). Job demands, perceptions of effort–reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73(3), 287–302.
51. Kumari, K., Barkat Ali, S., Un Nisa Khan, N., & Abbas, J. (2021). Examining the Role of Motivation and Reward in Employees' Job Performance through Mediating Effect of Job Satisfaction: An Empirical Evidence. *International Journal of Organizational Leadership*, 10(4), 401–420. <https://doi.org/10.33844/ijol.2021.60606>.
52. Kanter, R.M. (1988). When a thousand flowers bloom: Structural, collective, and social conditions for innovative in organizations. In B.M. Staw, & L.L. Cummings (Eds.), *Research in organizational behavior* (vol. 10, pp. 169–211). Greenwich, CT: JAI Press.
53. Katsaros, K. K. (2024). Gen Z Employee Adaptive Performance: The Role of Inclusive Leadership and Workplace Happiness. *Administrative Sciences*, 14(8), 163. <https://doi.org/10.3390/admsci14080163>.
54. Kumari, K., Ali, S. B., Batool, M., Cioca, L.-I., & Abbas, J. (2022). The interplay between leaders' personality traits and mentoring quality and their impact on mentees' job satisfaction and job performance. *Frontiers in Psychology*, 13(667). <https://doi.org/10.3389/fpsyg.2022.937470>.
55. Kuvaas, B., Buch, R., & Dysvik, A. (2020). Individual variable pay for performance, controlling effects, and intrinsic motivation. *Motivation and Emotion*, 44(4), 525–533. <https://doi.org/10.1007/s11031-020-09828-4>.
56. Kantabutra, S. (2021). Exploring Relationships among Sustainability Organizational Culture Components at a Leading Asian Industrial Conglomerate. *Sustainability*, 13(4), 1733. <https://doi.org/10.3390/su13041733>
57. Ketprapakorn, N., & Kantabutra, S. (2022). Toward an organizational theory of sustainability culture. *Sustainable Production and Consumption*, 32, 638–654. <https://doi.org/10.1016/j.spc.2022.05.020>.
58. Karaferis, D., Aletras, V., Raikou, M., & Niakas, D. (2022). Factors Influencing Motivation and Work Engagement of Healthcare Professionals. *Materia Socio-Medica*, 34(3), 216. <https://doi.org/10.5455/msm.2022.34.216-224>.
59. Kuhn, K. M. (2009). Compensation as a signal of organizational culture: the effects of advertising individual or collective incentives. *The International Journal of Human Resource Management*, 20(7), 1634–1648. <https://doi.org/10.1080/09585190902985293>.
60. Kotera, Y., Taylor, E., Fido, D., Williams, D., & Tsuda-McCaie, F. (2021). Motivation of UK graduate students in education: self-compassion moderates' pathway from extrinsic motivation to intrinsic motivation. *Current Psychology*, 42(12), 10163–10176. <https://doi.org/10.1007/s12144-021-02301-6>.

61. Lee, C. C., Yeh, W. C., Yu, Z., & Luo, Y. C. (2023). Knowledge sharing and innovation performance: a case study on the impact of organizational culture, structural capital, human resource management practices, and relational capital of real estate agents. *Humanities and Social Sciences Communications*, 10(1), 707.
62. Lu, X., Yu, H., & Shan, B. (2022). Relationship between Employee Mental Health and Job Performance: Mediation Role of Innovative Behavior and Work Engagement. *International Journal of Environmental Research and Public Health*, 19(11), 6599. <https://doi.org/10.3390/ijerph19116599>.
63. Layek, D., & Koodamara, N. K. (2024). Impact of contingent rewards and punishments on employee performance: the interplay of employee engagement. *F1000Research*, 13, 102. <https://doi.org/10.12688/f1000research.144019.2>
64. Liu, X., Yu, J., Guo, Q., & Li, J. (2022). Employee engagement, its antecedents and effects on business performance in hospitality industry: a multilevel analysis. *International Journal of Contemporary Hospitality Management*, 34(12), 4631-4652.
65. Mowbray, P. K., Gu, J., Chen, Z., Tse, H. H. M., & Wilkinson, A. (2024). How do tangible and intangible rewards encourage employee voice? The perspective of dual proactive motivational pathways. *The International Journal of Human Resource Management*, 35(15), 2569–2601. <https://doi.org/10.1080/09585192.2024.2353660>.
66. McLean, A.A. (1979). *Work Stress*; Addison-Wesley: Boston, MA, USA
67. Nguyen, T.-M. (2019). Do extrinsic motivation and organisational culture additively strengthen intrinsic motivation in online knowledge sharing? *VINE Journal of Information and Knowledge Management Systems*, 50(1), 75–93. <https://doi.org/10.1108/vjikms-02-2019-0019>.
68. Pandya, J. D. (2024). Intrinsic & extrinsic motivation & its impact on organizational performance at Rajkot city: A review. *Journal of Management Research and Analysis*, 11(1), 46–53. <https://doi.org/10.18231/jjmra.2024.009>
69. Paliga, M., Kożusznik, B., Pollak, A., & Sanecka, E. (2022). The relationships of psychological capital and influence regulation with job satisfaction and job performance. *PLoS ONE*, 17(8), e0272412. <https://doi.org/10.1371/journal.pone.0272412>.
70. Oven, A., & Domajjko, B. (2021). Job satisfaction and creativity at work among occupational therapy practitioners: A mixed-methods study. *Work*, 69(4), 1351-1362.
71. Rathi, G., & Srivastava, A. K. (2024). Organizational Culture & Employee Well Being (With Special Reference to Automotive Sector). *Revista Review Index Journal of Multidisciplinary*, 4(1), 55–65. <https://doi.org/10.31305/rrijm2024.v04.n01.007>
72. Senbeto, D. L., Hon, A. H. Y., & Law, R. (2021). Organizational Cultures Determine Employee Innovation in Response to Seasonality: Regulatory Processes of Openness and Resistance. *Journal of Hospitality & Tourism Research*, 46(6), 1122–1146. <https://doi.org/10.1177/10963480211011629>.
73. Sánchez-García, E., Montalvo-Falcón, J. V., Marco-Lajara, B., & Martínez-Falcó, J. (2024). Guiding organizations toward sustainable success: The strategic role of leadership in environmental corporate governance in the wine industry. *Corporate Social Responsibility and Environmental Management*, 31(6), 6438–6456. <https://doi.org/10.1002/csr.2925>.
74. Scarpello V, Campbell JP (1983) Job satisfaction: are all the parts there? *Pers Psychol* 36:577–600.
75. Saleh, R., & Atan, T. (2021). The Involvement of Sustainable Talent Management Practices on Employee’s Job Satisfaction: Mediating Effect of Organizational Culture. *Sustainability*, 13(23), 13320. <https://doi.org/10.3390/su132313320>.
76. Shah, S. M. A., Jiang, Y., Wu, H., Ahmed, Z., Ullah, I., & Adebayo, T. S. (2021). Linking Green Human Resource Practices and Environmental Economics Performance: The Role of Green Economic Organizational Culture and Green Psychological Climate. *International Journal of Environmental Research and Public Health*, 18(20), 10953. <https://doi.org/10.3390/ijerph182010953>.
77. Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). John Wiley & Sons.
78. Tabatabaei, S. (2024). A new model for evaluating the impact of organizational culture variables on the success of knowledge management in organizations using the TOPSIS multi-criteria algorithm: Case study. *Computers in Human Behavior Reports*, 14, 100417. <https://doi.org/10.1016/j.chbr.2024.100417>
79. Tarigan, J., Cahya, J., Valentine, A., Hatane, S., & Jie, F. (2022). Total reward system, job satisfaction and employee productivity on company financial performance: evidence from Indonesian Generation Z workers. *Journal of Asia Business Studies*, 16(6), 1041–1065. <https://doi.org/10.1108/jabs-04-2021-0154>.
80. Tsao, C. T., & Wang, C. (2014). EFL students’ language learning styles, learning climate, and their affective variables. *Studies in English Language and Literature*, 33, 79-123.
81. Tomaszewska, K., Kowalczyk, K., Majchrowicz, B., Klos, A., & Kalita, K. (2024). Areas of professional life and job satisfaction of nurses. *Frontiers in Public Health*, 12. <https://doi.org/10.3389/fpubh.2024.1370052>
82. Tripathi, A. (2024). Organizational Learning Culture and Firm Performance: The Mediating Role of Learning Agility. *Vikalpa: The Journal for Decision Makers*, 49(2), 129–142. <https://doi.org/10.1177/02560909241254996>
83. Utami, B. Y., Susanti, L., Rusdinal, R., & Achyar, N. (2026). Transformational leadership and motivation’s influence on teacher innovation and job satisfaction. *Indonesian Research Journal in Education | IRJE|*, 10(1), 170-184.
84. Venketsamy, A., & Lew, C. (2022). Intrinsic and extrinsic reward synergies for innovative work behavior among South African knowledge workers. *Personnel Review*, 53(1), 1–17. <https://doi.org/10.1108/pr-02-2021-0108>
85. Woo, E.-J., & Kang, E. (2021). Employee Environmental Capability and Its Relationship with Corporate Culture. *Sustainability*, 13(16), 8684. <https://doi.org/10.3390/su13168684>.
86. Zeng, D., Takada, N., Hara, Y., Sugiyama, S., Ito, Y., Nihei, Y., & Asakura, K. (2022). Impact of Intrinsic and Extrinsic Motivation on Work Engagement: A Cross-Sectional Study of Nurses Working in Long-Term Care Facilities. *International Journal of Environmental Research and Public Health*, 19(3), 1284. <https://doi.org/10.3390/ijerph19031284>
87. Zayed, N. M., Rashid, M. M., Darwish, S., Faisal-E-alam, M., Nitsenko, V., & Islam, K. M. A. (2022). The Power of Compensation System (CS) on Employee Satisfaction (ES): The Mediating Role of Employee Motivation (EM). *Economies*, 10(11), 290. <https://doi.org/10.3390/economies10110290>.