

# The Impact of Talent Management, Innovation, and Digital Transformation on Strategic Performance: A moderated Mediation Analysis at Information Technology Companies in King Hussein Business Park

Batool Alkafrini, Khaled Al Shawabkeh

Faculty of Finance and Business, Department of Management, The World Islamic Sciences and Education University, Jordan

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v15-i4/25245> DOI:10.6007/IJARBSS/v15-i4/25245

**Published Date:** 20 April 2025

## Abstract

Technological turbulence in the business environment result in challenges that cannot be ignored, requiring effective strategic management. This necessitates the presence of talented human forces with high strategic performance that have the ability to develop and implement proactive strategies and balance competitive forces. The study aims to examine The Impact of Talent Management, Innovation, and Digital Transformation on Strategic Performance: A moderated Mediation Analysis at Information Technology Companies in King Hussein Business Park. The study collected data from 200 managers in top and middle management in Information Technology Companies through a prorated physical random sample, This paper utilized software (SPSS and Amos) to test hypotheses, according to the finding, the study found that talent management has a significant positive impact on strategic performance ( $\beta = 0.779$ ,  $t = 7.466$ ,  $p \leq 0.000$ ) and with explanatory capacity ( $R^2 = 0.607$ ), which means that 60.7% of the variance in talent management has been explained by strategic performance. Moreover, innovation partly mediates the relationship between talent management and strategic performance. In addition to the total normative impact of talent management in strategic performance with the presence of innovation (86.3%), this indicates that there is a partial impact of innovation on the impact of talent management in strategic performance. In addition, digital transformation was modifying the relationship between talent management and strategic performance. This paper contributes to the existing collection of knowledge and literature on the impact of talent management, innovation and digital transformation on the strategic performance advantage of IT companies at King Hussein Business. Organizations can integrate innovation and digital transformation into their operations to improve strategic performance and achieve sustainable competitive advantage.

**Keywords:** Talent Management (TM), Strategic Performance (SP), Digital Transformation (DT), Innovation (INN), Talent Attraction (TA), Succession planning (SPT) Balance Scorecard (BSC)

## **Introduction**

Today's strategic success needs to influence changing factors in the light of rapid developments in today's business world and excessive competition. Organizations have worked to prepare mechanisms and programs to cope with changes they can face in line with the organization's objectives. Human resources are the most important resources that organizations have to improve their overall performance and excellence over competitors. Talent management is the key to an organization's success more than money or market share. Organizations have given attention and focus to the strategic importance of managing the flow of talent appropriate to their organization to attract the most suitable staff for the right jobs to exploit their talents, Talent management is the organization's primary objective to place the right person in the right place to attract growth, build opportunities, stimulate innovation and generate new industries (Schweyer, 2004, 1).

Measuring performance in organizations is at the core of the key issues through which the organization identifies the gap in its ability to innovate, develop and create. Balanced scorecard (BSC) measures are based on the organization's strategic and competitive objectives that help to focus the strategy within each of the following perspectives: customers, internal processes, learning and growth, and the complementary environment of the financial metric. A balanced scorecard affects benchmarks for performance determination that provide a comprehensive framework through which the organization's strategic objectives are translated into a set of performance metrics. Effective measurement is an integral part of management (Kaplan & Norton, 2004, 5). Research and development activity in the 1970s was limited to a few countries with advanced economies innovation ", but its global reach has enhanced the capacity for innovation, and innovations have been concentrated in technological visions in addition to the relationship between innovation inputs such as R&D and its outputs of productivity growth and economic growth, Patent registration within a specific strategy to achieve the desired goals (Porter et al., 2002). Digital transformation is an important process for the organization, to use all information-based technologies that strategically increase its competitiveness, so there is a digital orientation that is a map that includes a comprehensive process of work or service delivery so that there is free access to each specific part of the explicit administrative models (Baker, 2014, 15).

Information technology companies in King Hussein Business Park offer growth and development opportunities to local, regional, and global enterprises by cultivating a stimulating environment whose core capital is talented human resources. The park hosts 75 global and local companies and 100 startups, providing employment opportunities for more than 7,000 individuals (Official Website of King Hussein Business Park, 2024).

## **Literature Review and Hypotheses**

### *Talent Management*

Human resources are one of the most important assets on which organizations depend. Talent is the foundation from which everything starts. Organizations need to acquire war for talent to develop strategic performance. Leadership plays a crucial role in improving talent

management efforts and adapting to changing circumstances. Leaders must invest in talent (Ulrich & Smallwood, 2012). The talent in terms of origin began in ancient civilizations such as Ashoreans, Babylonians, Greeks and Romanians as a sign of weight, and then turned into a currency, over time the term human capital became capital used by human resources, which is synonymous with the word "talent", and was defined as "the natural ability to do something well. CEOs of McKinsey & Company, a major management consulting firm, launched in the year (1997) The term "The war for talent", which included distributing a range of questionnaires to managers and interviewing executives, to document best performing corporate practices in recruitment and promotion processes. The results showed that the best companies were companies whose leaders paid attention to attracting and developing talent and achieving outstanding performance compared to others (Chambers et al., 1998, 47).

Barney (1991) asserted in its resource-based theory Resources Based View (RBV) that resources are valuable, scarce and cannot be imitated from competitors, and an organization where the organization can identify the company's potential core resources and assess whether those resources enable the company to efficiently and effectively implement its strategies, underscoring the importance of talent ownership and management in organizations.

Dessler (2018, 99) defines talent management as the process oriented towards achieving the integrated and homogenous goals of planning, recruitment, development and retention of talent as well as managing and compensating them to attract talented people with the right skills and competencies. I also agree with him Storey et al. (2009, 27) Talent management expresses a human resources management function that is concerned with the Organization's strategic direction, including workforce planning, talent attraction and recruitment, talent development and development, performance management, compensation and succession planning. And via Noe et al. (2014, 14) about talent management as a structured effort aimed at planning and attracting talent from highly skilled staff and managers and retaining, developing and motivating talent.

#### *Dimension of Talent Management*

There are persistent changes and challenges that actually impact the organizations' handling of talent management, and by considering talent the core core of HR exercises aimed at organizational success, through their ongoing efforts to acquire, maintain, develop and develop talent (Frank & Taylor, 2004). Researchers have identified several strategies in talent management. In this study, the researcher relied on five dimensions of talent management:

#### *Talent Attracting*

Dessler (2018, 623) noted that talent attracting encompasses all activities involved in building a workforce that meets the organization's needs and achieving organizational success, and working to design programs to assess and oversee the effectiveness of activities and monitor talent acquisition and attraction activities.

#### *Talent Development*

The Talent development in business organizations aims to achieve the desired set of outcomes at the individual and organizational levels by providing support from the

organization's management and working environment (Stewart, 2011, 10). Given that talent management is a strategic management issue, the talent development strategy includes key steps in assessing competencies and capabilities, Analysis of training needs to identify shortcomings within the talent matrix, together with effective training and development programmers, The impact of these programmers must also be measured to ensure that the desired results are achieved. (Davis et al., 2016, 8).

### *Talent Retention*

Organizations face ongoing challenges on talent retention issues, and retention of talent is not a new issue but will be more important in the future, defined as an expression of the organization's remaining percentage within the required levels of working groups (Phillips & Edwards, 2008, 22, 28). Deb (2005, 142) added that retaining talent is an ongoing effort to align the talent management plan with the organization's strategic objectives, reduce turnover and thus influence organizational performance, so organizations need to develop a talent retention plan.

### *Talent Performance Management*

The term performance management was first used in 1992 through personnel management, and many thought it focused solely on pay. However, it is a systematic management process that contributes to the effective management of individuals and achieves a high level of organizational performance. It is concerned with the development of competent individuals and the work towards harmonized and consistent goals between individuals and the organization (Armstrong & Baron, 2005, 2). The Talent Performance Department also refers to management that is interested in providing the organization with the flow of talent it needs and providing opportunities for workers to improve and develop their abilities and needs in a manner consistent with the organization's goals and individual objectives of employees. (Armstrong & Taylor, 2014, 172)

### *Succession Planning*

Succession planning refers to the ongoing process of systematically identifying, evaluating and developing organizational leadership with a view to enhancing performance. Succession is three key steps: identifying the Organization's core post needs, training and developing internal candidates, as well as selecting and evaluating potential candidates for vacant posts in key positions. (Dessler, 2020, 138) Studies show that the important role of human resources in the succession planning process lies not only in determining who will hold the position, but also in working to empower, develop and support talent, and start predicting it for leadership positions. (Clutterbuck, 2012, 4).

### *Strategic Performance*

Due to the rapid development in the recent times, the concept of strategic performance has evolved to include multiple elements beyond the achievement of financial objectives, but has come to involve innovation and adaptation to market changes and building strong relationships with clients, focusing on a comprehensive and integrated process involving the ongoing assessment of the Organization's external and internal environment (Drucker, 1963). Kaplan and Norton (1992) presented a research article in the balanced scorecard (Harvard business review) The article was based on a research project of several companies to measure performance s Performance Measurement System severely affects workers' behaviour, and

that performance measurement procedures based on financial measures give misleading signs of continuous improvement balanced scorecard provides comprehensive information to managers and that financial metrics are not aligned with the skills and competencies that companies try to reach, A balanced scorecard allows managers to view the business through four perspectives. Strategic performance indicates the actual end result of the strategic management process to reach the goals that the organization desires to achieve efficiently and effectively within the organization, and to ensure that the performance gap is not reached (Strategic Gap) that arises when performance does not meet expectations. (Wheelen et al., 2018, 53-55) As Porter (1996) expressed strategic performance as the organization's ability to achieve its goals by pursuing effective competitive strategies.

The balanced scorecard is the focal point for companies to implement improvement programmers. Each company has a tool that fits into the nature of the organization's work, technology, culture and competitive environment. The senior management team with its vision and strategy has four sets of balanced performance measures. Financial, customer, internal process, learning and growth perspectives (Kaplan and Norton) (2009), Kaplan and Norton proposed a balanced scorecard as one of the strategic performance measures that came in for inadequate financial measures and considered traditional financial measures insufficient to measure performance (Wheelen et al., 2018, 358).

Kaplan and Norton (1992) provided a definition of a balanced scorecard as a management tool and as a comprehensive framework, approach and vision for organizations' performance so that financial and non-financial benchmarks are integrated, helping the organization to measure its current and future performance through four key aspects (financial, customer, internal process, learning and growth).

#### *Customers Perspective*

The performance of organizations towards their customers has become a priority and an organizational task for them. One of the most key messages of organizations is "to be number one in delivering value to customers". A balanced scorecard requires managers to translate the overall objectives of customer service Kaplan and Norton (1992). The customers Perspective Measure focuses on client goals and performance measures that are linked to customers' perception of the organization and harmony among themselves. (Mackay, 2005.40).

#### *Internal Process Perspective*

Internal processes, which are directly client-driven, are the perspective that gives the organization the ability to achieve competitive advantage and outperform competitors (Kaplan & Norton, 1996). added Popovičová (2024) the developer of internal processes allows managers to be able to determine the success of the Organization's business and whether the Organization's products meet the needs of its customers.

#### *Learning and Growth Perspective*

Kaplan and Norton (2001) noted that the learning and growth perspective is the last stop in the balanced scorecard strategic map and forms the basis for any successful strategy, through which managers identify the capabilities and skills of staff, technology and the organizational climate, enabling the organization to align its human resources and technology

with the requirements of the strategy. A learning and growth perspective serves as a guide for long-term value creation to monitor progress in developing the intangible capabilities and assets required for future growth (Mio et al., 2021).

#### *Environmentally Sustainable Perspective*

Environmental performance is the most sophisticated of the organizational systems used in the preparation of organizations' reports, encompassing a range of aspects such as product performance, energy consumption and resources, and overall environmental measures that reduce the use of materials (inputs), which contributes to creating long-term sustainable economic value through a system that combines corporate social responsibility and epidemiological management (2004, 168) Kaplan & Norton. Companies tend to participate in environmental programs when they conform to their social responsibility expectations and when there is support and stimulation from the organization's internal environment along with the necessary financial, human and technical resources, (Tashman et al., 2022). The focus on developing skills and competencies contributes to promoting sustainable development (Tunio, 2024).

#### *Digital Transformation*

Globalization and high levels of uncertainty have forced companies to change and evolve with renewable digital technologies, requiring organizations to achieve effective and efficient integration (Kraus et al., 2021). Sayari et al. (2024) Digital transformation has become a vital strategy for organizations that strive to maintain competitiveness and sustainable development with increasing reliance on technology. This is to integrate digital technologies into all of the organizations' core processes in order to deliver value to customers and enhance organizational performance. (Hobbs, 2010). Digital transformation refers to the adoption of digital technology in business processes, requiring organizations to improve their operations with a view to delivering higher value to their customers (Tian et al. 2024). Larsson and Teigland (2020) explained that digital transformation is not only a single project but a whole series of different projects, effectively requiring the organization to deal flexibly with the changes it may face.

Companies today that aspire to reach are seeking to digitize their businesses by dematerializing and many limitations from borders, reducing costs and changing how they conduct business (Pereira et al., 2022). Yin (2024) noted that digital transformation focuses on restructuring and innovation of traditional business models, as well as process design and data integration. Digital transformation promotes organizational agility and flexibility through the ability to exploit opportunities and optimize the use of dynamic resources and capabilities (Vial, 2020).

#### *Innovation*

Innovation is the hallmark of today's knowledge and technology-based economy, a process that seeks to create something new or develop something in response to a particular trade situation, which in turn promotes economic development. (developing new products, innovating new production methods, opening new markets), there is a conceptual mix between innovation and creativity (Creativity) which is a concept associated with the idea of innovation and is the ability to introduce new ideas and transform them into products, as well as the concept of invention (Invention) which represents the process through which



something completely new is developed and is a fundamental step in innovation, where the invention can be transformed into innovation (Schumpeter, 1939, 13-14-82).

Innovation is defined as the application of creativity to achieve economic benefits through the successful design, production and marketing of products or services, to support efforts in product production or development (Kelley & Rayala, 2011). Rogers and Rogers (1998) also explained that innovation represents a new product or has been radically developed and marketed in a way that promotes growth, economic improvement and knowledge generation, so that innovation is not separated from the organization's activities but is an essential part of its operations. (Lie and wang, 2024). In emphasizing the importance of dynamic capabilities (DC) as a critical factor in the concept of "open innovation", which is a focal point and an intermediary between dynamic capabilities and the development of organizations' performance based on the incorporation of internal and external knowledge into the organization's environment and its employment in the business model, dynamic capabilities are based on the sensing and exploitation of opportunities, as well as on the integration and resupply of internal ones.

Based on the literature review, this study aims to analyze the impact of talent management on strategic performance: the intermediate role of innovation and and the moderating of digital transformation at IT companies in the king Hussein business park. Accordingly, the proposed research model in figure 1 reflects higher and lower order construct. The research hypotheses are depicted as follows:

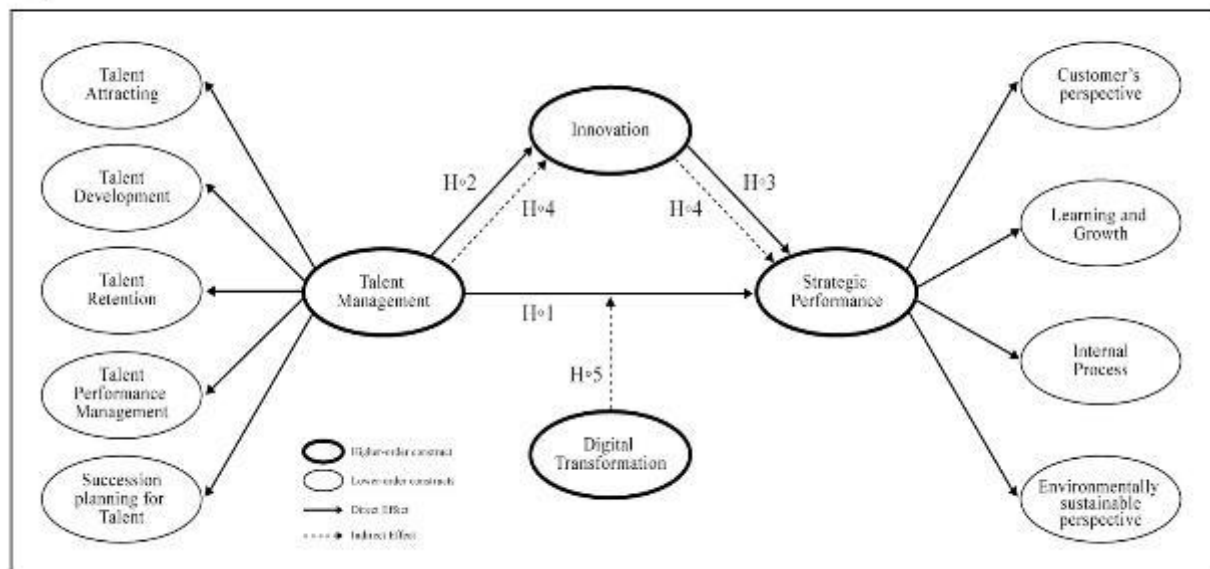
**Ho.1:** Talent management has a significant positive impact on strategic performance IT companies in the king Hussein business park.

**Ho.2:** Talent management has a significant positive impact on innovation at IT companies in the king Hussein business park.

**Ho.3:** strategic performance has a significant positive impact on innovation at IT companies in King Hussein Business business park.

**Ho.4:** Innovation mediate the relationship between talent management and strategic performance at IT companies in King Hussein Business park.

**Ho.5:** Digital Transformation moderate the relationship between talent management and strategic performance at IT companies in King Hussein Business park.

**Figure 1. Research Model**

## Methods

The study relied the quantitative approach (descript and analytical). The study population consisted of all top and middle management managers in (37) IT companies in king Hussein business park, using proportional stratified random of 274 managers, based on the sampling and according to the size of the total population, with a margin of error of 5%, the representative sample of the study was 240 managers. To ensure a reasonable recovery rate, the study distributed 200 questionnaires, of which 172 were retrieved yielding an 86% recovery rate, meeting the necessary recovery rate of 85%, according to (De vaus, 2002). The study relied on the questionnaires for collecting primary data. The questionnaires consists 65 items on a five-point likert scale due to sustainability to various analysis or structural equation modeling.

The independent variable (Talent management) was measured through items depending on (Zanabazar et al., 2023; Al-Oumi & Al Doubi 2021; Anik et al. (2023); Dessler, 2020). The dependent variable (strategic performance) adapted items from (Al Tahrawi, & Al-Shawabkeh, 2024; Alayed et al., 2023; Kaplan & Norton, 1996, 2001, 1992, 2006, 2009). The mediating variable (innovation) was measured through items developed from (Rogers & Rogers, 1998; Kelley & Rayala, 2011; Druker, 1998; Porer et al., 2002). The moderating variable (digital transformation) was measured through items developed from (Hobbs, 2010; Siti et al., 2023).

The study employed the (SPSS and AMOS) program, After encoding the aggregated data and entering them into the computer for analysis, several methods were used; descriptive statistical tools, multiple linear regression and multi-hierarchical linear regression; SPSS is characterized by being able to handle large amounts of data. Quantitative data were analyzed using descriptive statistical tools such as percentages and ANOVA tests.



## Results

Table 1 shows that all variable followed normal distribution, skewness with being very low and within the acceptable range of (+1 and -1), and and keurtosis ranging between (+2 and -2) (Hair et al. 2022).

Table 1  
*Descriptive Statistics*

	Mean	Std. Deviation	Skewness	Kurtosis
TM	4.02	.71	-1.04	2.01
SP	4.27	.65	-1.66	2.77
INN	4.27	.88	-1.53	2.58
DT	4.29	.87	-1.60	2.98

Source: Based on SPSS software analysis results

Note: TM = Talent Management, SP = Strategic Performance, INN = Innovation, DT = Digital Transformation

Table 2 shows the results of the first hypothesis test through the standard multiple regression test, and TM has been found to have a significant impact on SP, with explanatory capacity  $R^2 = 0.607$ , which means that of the variance in TM explains (60.7%) the disparity in SP at a significant level of 0.00. (sig = This confirms the morale of regression at an indicative level ( $\alpha \leq 0.05$ ) at a significant level of (0.000).

Table 2  
*The Impact of TM on SP*

Variables	Beta	t	sig
TA	.04	.48	.63
TD	.22	2.97	.05
TR	.23	2.4	.01
TP	.08	.97	.33
SPT	.30	4.1	.00
$r^2 = .607$		$F = 51.335$	$Sig = .000$

Source: Based on SPSS software analysis results

Table 3 shows the results of the second key hypothesis test through the standard multiple regression test, and TM has been found to have a significant impact on SP, with explanatory capacity  $R^2 = 0.684$ , of the variance in TM explains (68.4%) the disparity in SP at a significant level of (sig = 0.000) This confirms the morale of regression at an indicative level ( $\alpha \leq 0.05$ ).

Table 3

*The Impact of TM on INN*

Variables	Beta	t	sig
TA	.100	1.02	.308
TD	.220	2.37	.019
TR	.225	2.06	.041
TP	.004	.035	.972
SP	.231	2.65	.009
$r^2 = .684$	$F = 29.120$	$Sig = .000$	

Source: Based on SPSS software analysis results

Table 4 shows the results of the third main hypothesis test through a simple linear regression test, and TM has been found to have a significant impact on SP, with explanatory capacity ( $R^2 = 0.684$ ), which means of the variance in talent management explains (68.4%) the variability in SP at a significant level of ( $sig = 0.000$ ) This confirms the morale of regression at an indicative level ( $\alpha \leq 0.05$ ), The result are presents as shows in Table 4, and Figure 2.

Table 4

*Model Fit Summary*

Model	Chi <sup>2</sup>	Sig	GFI**	CFI**	RMSEA**
1 TM	4.128	.003	.898	.957	.135

Source: Based on SPSS software analysis results

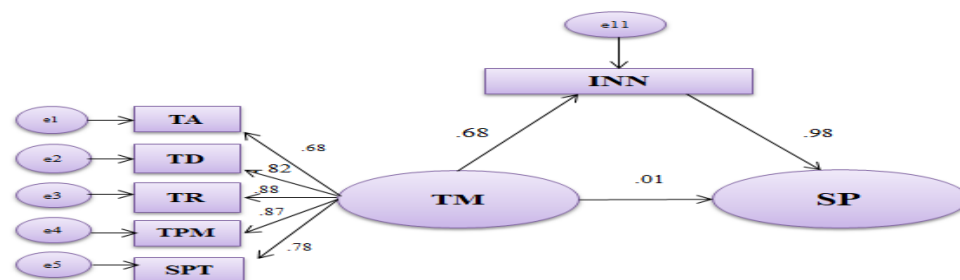


Figure 2

Table 5 shows the results of the test of the fifth main hypothesis through the multi-hierarchical regression test, and shows the value of the correlation factor of the first model ( $R = 0.779$ ) indicating a moral correlation between TM in SP, with explanatory capacity ( $R^2 = 0.607$ ), which means of the variance (68.4%) SP at a morale level ( $sig = 0.000$ ) This confirms the morale of regression at an indicative level ( $\alpha \leq 0.05$ ).

When introducing the thin shift in the second model, the value of the determination coefficient increased to ( $R^2 = 0.942$ ), the change in the determination coefficient ( $R^2$  change = 0.334), and the value ( $F$  change = 51.33) at a morale level) 0.00. ( $sig =$  This confirms the morale of decline at an indicative level ( $\alpha \leq 0.05$ ) indicating that DT has a moral role in the impact of TM on SP.

Table 5

*Multi-Hierarchical Regression Test*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.779a	.607	.595	.41779	.607	51.335	5	166	.000
2	.970b	.942	.939	.16163	.334	944.154	1	165	.000

Source: Based on SPSS software analysis results

**Discussion**

This study investigation the impact of talent management, innovation, and digital transformation on strategic performance: A moderated mediation analysis at information technology companies in king Hussein business park. According to the results of the analysis of the first hypothesis, the results show that TM has a significant impact on the SP at IT companies in the King Hussein Business. This result is consistent with Al-Oumi and Al Doubi (2021) who discussed the impact of talent management strategies on strategic performance in Jordan's industrial companies. Mattalatta and Andriani (2023) found that HRM strategies in the form of talent management are necessary to enhance organizational performance, and talent management has a direct positive impact on organizational performance. Tunio (2024), which highlighted that talent management has a significant impact on the organizations' sustainable performance, and that there is a statistically significant correlation between talent ego and sustainable performance. (Rijal & Rijal, 2023) concluded that talent management with its dimensions had a statistically significant impact on organizational performance, and found that after talent attraction, after talent selection, and after talent retention all had a high impact.

The results of the second hypothesis indicated that talent management has a significant impact of innovation at IT companies in King Hussein Business park, confirming Alzoud (2024) Talent management in its dimensions has a positive impact on technological innovation through talent management, attraction, development and development. Furthermore, training programs and rewards must be offered to people with high performance, as well as a focus on the culture of innovation, exchange of ideas, knowledge and collaboration among workers. It can be seen as a key to innovation by stimulating the talents of SME actors, which has an impact on increased productivity and job satisfaction (Kristanto et al., 2024). In addition, talent management strategies have a significant impact on innovation performance, which will increase the effectiveness and efficiency of Malaysia's public sector operations, and increase interest in human resources management practices, helping organizations achieve sustainable competitive advantage and thus improve and develop their performance (Ibrahim, 2023).

The results of the third hypothesis showed that innovation impact the strategic performance of IT companies at King Hussein Business park. Human resources management has a significant impact of organizational performance and innovation, and innovation can contribute to improved organizational performance, as well as the need for attention and investment in human resources, one of the most important barriers to companies (Gede et al., 2020). Innovation is a competitive means to improve performance, by adapting to

changing needs and achieving competitive advantage that facilitates the implementation of projects (Tajpour et al., 2020).

The results of the fourth hypothesis showed that innovation mediates the relationship between talent management and strategic performance in IT companies at King Hussein Business park. When talent management and innovation are combined, strategic performance is enhanced talent management is the organization's strategy to attract and attract talent, Development, development and retention, while strategic performance is a management tool that helps the organization measure performance and achieve goals and targets Talent management ensures better performance strategies, while innovation ensures value creation, new innovation skills, customer needs and new market opportunities.

The results of the fifth hypothesis examined the ability of digital transformation to improve the impact of talent management on strategic performance in IT companies at King Hussein Business park. Through transformation, the organization applies modern technologies and provides technology infrastructure in all areas of business that adds value to the organization and customers in companies.

### **Conclusion**

This study has examined the mediating role of INN in the Relationship between TM and SP and moderating role of DT. Were the finding indecate that the TM strategy by attracting, developing and developing it and maintaining it. Evaluating their performance on an ongoing basis, identifying future leaders along with their approach to the application of DT and the dissemination of a culture of INN; More inclined to improve SP through a BSC In the end, the reliance of companies in their policies and procedures on innovation, R&D and digital transformation makes them able to achieve value for customers, provide the infrastructure needed to meet their needs and improve their services.

This study has identified limitations and highlighted further studies to study the relationship between variables (TM, SP, INN, and DT) in the IT companies sector. Although the current study focused, but recommends focusing on other sectors such as service, industrial and educational sectors. in Jordan to enhance the universality of results.

Furthermore, it is possible to explore other dimensions of talent management such as the planning process, as well as to use other dimensions of strategic performance such as financial performance, efficiency, effectiveness, and quality. Finally, data has been collected through identification, it is suggested to use other methods such as interviews or combining the two methods, to avoid any challenges arising from the distribution of questionnaires.

## References

- Al Tahrawi, A., & Al-Shawabkeh, K. (2024). The impact of digital transformation on strategic performance: the mediating role of innovation at Jordanian private universities. *International Journal of Academic Research in Business and Social Sciences*, 14(5), 2222-6990. 10.6007/IJARBSS/v14-i5/21444
- Alayed, S., Al-Tit, A., & Alashjaee, A. (2023). Migration letters the effect of digital transformation on organizational performance by a mediating role of digital innovation. *Migration Letter*, 20(7), 380-394. 10.47059/ml.v20i7.4313
- Alzoud, M. (2024). The impact of talent management on innovation: The empirical study of pharmaceutical companies. *Corporate & Business Strategy Review*, 5(2), 72-79
- Anik, R. H., & Rahman, A., & Noume, U. (2023). Impact of talent management practices on sustainable organizational performance: a study on the telecommunication industry of Bangladesh. *Journal of Innovation in Business Studied*, 3(1). 53-82
- Armstrong, M., & Baron, A. (2005). *Managing performance: performance management in action*. CIPD Publishing.
- Armstrong, M., & Taylor, S. (2014). *Armstrong's handbook of human resource management practice*. Kogan Page Publishers.
- Baker, M. (2014). *Digital transformation*. Createspace Independent P.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Chambers, E. G., & Foulon, M., & Handfield-Jones, H., & Hankin, S., & Michaels, E. (1998). The war for talent. *The McKinsey Quarterly*. 3(3), 44-57.
- Clutterbuck, D. (2012). *The talent wave: why succession planning fails and what to do about it*. Kogan Page Publishers.
- Davis, T., Cutt, M., Flynn, N., & Mowl, P. (2016). *Talent assessment: A new strategy for talent management*. Routledge.
- De Vaus, D. (2002). *Surveys in social research*. Routledge.
- Dessler, G. (2018). *Human resource management sixteenth edition*. Florida International University. Pearson
- Dessler, G. (2020). *Human resource management Sixth edition*. Pearson International Edition.
- Drucker, P. F. (1998). The discipline of innovation. *Harvard Business Review*, 76(6), 149-157.
- Drucker, P. F. 1963. Managing for Business Effectiveness. *Harvard Business Review*, May-June, 41(3), 53-60.
- Frank, F. D., & Taylor, C. R. (2004). Talent management: trends that will shape the future. *Human Resource Planning*, 27(1), 33
- Hobbs, R. (2010). *Digital and media literacy: a plan of action. A white paper on the digital and media literacy recommendations of the knight commission on the information needs of communities in a democracy*. Aspen Institute. 1 Dupont Circle NW Suite 700, Washington, DC 20036. <https://businesspark-jo.com/lang=a>
- Ibrahim, N. S. (2023). The effect of talent management strategies on fostering innovation in organization. *International Journal of Academic Research in Business & Social Sciences*, 13(3), 962-986.
- Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard: measures that drive performance. *Harvard Business Review*.
- Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard: measures that drive performance. *Harvard Business Review*.

- Kaplan, R. S., & Norton, D. P. (2001). The strategy-focused organization: How balanced scorecard companies thrive in the new business environment. *Harvard Business Press*, 23(1), 23-1.
- Kaplan, R. S., & Norton, D. P. (2004). The Maps. Harvard Business Review press
- Kaplan, R. S., & Norton, D. P. (2004). The Maps. Harvard Business Review press
- Kelley, T., & Rayala, M. (2011). *The knowledge and skills of creativity and design. Creativity and design in technology and engineering education*, Council on Technology Teacher Education, 182-211.
- Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). Digital transformation: An overview of the current state of the art of research. *Sage Open*, 11(3), 1-15. 21582440211047576.
- Kristanto, Y., Sudarto, Najmudin, N. (2024). Talent management strategies as a key to innovation: exploring diversity in yogyakarta's MSMEs. *International Journal of Economic, Business and Innovation Research*, 3(4), 2946-0865. 10.70799/ijebir.v3i04.972
- Larsson, A., & Teigland, R. (2020). *The digital transformation of labor*. Taylor & Francis.
- Mackay, A. (2005). *A practitioner's Guide to the balanced scorecard*. Chartered Institute of Management Accountants.
- Michaels, E., & Xelrod, B. (2001). The war for talent. *Harvard Business Review Press*.
- Mio, C., Costantini, A., & Panfilo, S. (2022). Performance measurement tools for sustainable business: A systematic literature review on the sustainability balanced scorecard use. *Corporate social responsibility and environmental management*, 29(2), 367-384.
- Mishra, L. (2022). A study of talent management and its impact on performance of organizations. *Integrated Journal for Research in Arts and Humanities*, 2(4), 56-59. 10.55544/ijrah.2.4.57.
- Noe, R., Hollenbeck, J., Gerhart, B., & Wright, P. (2014). *Ebook: fundamentals of human resource management*. McGraw Hill.
- Norton, D., & Kaplan, R. (2009). *Focusing Your Organization on Strategy—with the Balanced Scorecard*. Elsevier Brasil.
- Pereira, C. S., Durão, N., Moreira, F., & Veloso, B. (2022). The importance of digital transformation in international business. *Sustainability*, 14(2), 834.
- Phillips, J. J., & Edwards, L. (2008). *Managing talent retention: an roi approach*. John Wiley & Sons.
- Porter, M. E. (1996). What is strategy?. Harvard Business Review
- Porter, M. E., Furman, J. L., & Stern, S. (2002). The determinants of national innovative capacity. *Research policy*, 31(6), 899-933.
- Rijal, R., & Rijal, C. (2023). Impact of talent management on organizational performance in nepalese non-government organizations. *KMC Journal*, 5(2), 178-193. 10.3126/kmcj.v5i2.58237
- Rogers, M., & Rogers, M. (1998). The definition and measurement of innovation, parkville, vic: *Melbourne Institute of Applied Economic and Social Research*, 10(98), 1328- 4991.
- Sayari, S., Hanen, L., Chishty, K., & Rabeh, A. (2024). Factors of digital transformation of Tunisian companies. *Journal of Infrastructure, Policy and Development*. 8(14) 7858. <https://doi.org/10.24294/jipd7858>
- Schumpeter, J. A. (1939). Business cycles. A theoretical, historical and statistical analysis of the capitalist process .New York: McGraw-Hill.



- Schweyer, A. (2004). *Talent management systems: Best practices in technology solutions for recruitment, retention and workforce planning*. John Wiley & Sons.
- Siti, P., Sunarjo, W., & Chalimah, (2023). The effect of digital transformation on organizational performance with innovation as a medition variable at hermina pekalongan hospital .*International Confrence on Social Science Humainties ARTS, (1)*,111- 116.
- Stewart, J., & Rigg, C. (2011). *Learning and talent development*. Kogan Page Publishers.
- Storey, J., Wright, P. M., & Ulrich, D. (Eds.).(2009). *The routledge companion to strategic human resource management*. London and New York: Routledge.
- Tajpour, M., Hosseini, E., & Salamzadeh, A. (2020). The effect of innovation components on organisational performance: Case of the governorate of Golestan Province'. *International Journal of Public Sector Performance Management*, 6,(6), 817-830. 10.1504/IJPSPM.2020.110987
- Tashman, P., Flankova, S., Essen, M., & Marano, V. (2022). Why do firms participate in voluntary environmental programs? A meta-analysis of the role of institutions, resources, and program stringency. *Organization & Environment*, 35(1), 3-29.
- Teece, D. J. (2018). Business models and dynamic capabilities. *Long range planning*, 51(1), 40-49.
- Tian, O., Lee, S., & Salminen, V. (2024). Aligning Just-in-Time Learning With Digital Transformation. *Human Factors, Business Management and Society*, 135(135), 276–286
- Tunio, M. (2024). Impact of talent management on organizational sustainable performance: a moderating role of process innovation. *Educational Administration: Theory and Practice*, 30(5), 3375-3390. 10.53555/kuey.v30i5.3458.
- Ulrich, D., & Smallwood, N. (2012). What is talent?. *Leader to leader*, 2012(63), 55-61.
- Vial, G. (2021). Understanding digital transformation: A review and a research agenda. *Managing digital transformation*, 13-66.
- Wheelen, T. L., Hunger, J. D., Hoffman, A. N., & Bamford, C. E. (2018). *Strategic management and business policy: Globalization, innovation, and sustainability*. pearson.
- Yin, S. (2024). Digital transformation for sustainable development. *Sustainable Social Development*. 2(5): 2802. <https://doi.org/10.54517/ssd2802>
- Zanabazar, A., Natsagdorj, S., & Jigjiddorj, S. (2023). The impact of talent management on human resources efficiency. *Journal of Social Studies (JSS)*, 19(2), 147-156. 10.21831/jss.v19i2.58110.