

## Do Information Technology and Human Resources Create Business Performance? The Role of Consumer Preferences

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### Abstract

Information technology is now a key pillar in an organization's business strategy to achieve optimal profits. Consumer changes and preferences play a central role in the development and adjustment of information technology to meet fluctuating market demands. The success of achieving the company's vision and mission is highly dependent on human resources who excel in the IT field. This research aims to review the importance of IT and HR in achieving the ideal vision and mission that has been planned. This research focuses on descriptive qualitative research that explores previous studies on IT, HR, consumer change, preferences, and business performance. Relevant data surrounding these variables were collected, summarized, and analyzed. The results confirmed that IT and HR play a crucial role in improving business performance. These factors must be combined holistically to achieve competitive advantage and sustainable long-term business performance, especially in the face of dynamic consumer changes and preferences.

**Keywords:** IT, HR, business performance, consumer preferences

## Apakah Teknologi Informasi dan Sumber Daya Manusia Menciptakan Kinerja Bisnis? Peran Preferensi Konsumen

### Abstrak

Teknologi informasi saat ini menjadi pilar utama dalam strategi bisnis organisasi untuk meraih keuntungan optimal. Perubahan konsumen dan preferensi berperan sentral dalam perkembangan dan penyesuaian teknologi informasi demi memenuhi tuntutan pasar yang berfluktuasi. Keberhasilan mencapai visi misi perusahaan sangat tergantung pada sumber daya manusia yang unggul di bidang IT. Penelitian ini bertujuan mengulas kembali pentingnya teknologi informasi dan sumber daya manusia dalam mencapai visi misi ideal yang telah direncanakan. Penelitian ini berfokus pada penelitian kualitatif deskriptif yang mengeksplorasi studi sebelumnya mengenai TI, SDM, perubahan konsumen, preferensi, dan kinerja bisnis. Data relevan seputar variabel tersebut dikumpulkan, dirangkum, dan dianalisis. Hasil penelitian menegaskan bahwa sumber daya IT dan sumber daya manusia memiliki peran krusial dalam meningkatkan kinerja bisnis. Kedua faktor ini harus digabungkan secara holistik untuk mencapai keunggulan kompetitif dan kinerja bisnis jangka panjang yang berkelanjutan, terutama dalam menghadapi dinamika perubahan konsumen dan preferensi.

**Kata kunci:** TI, SDM, kinerja bisnis, preferensi konsumen

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## INTRODUCTION

In contemporary business practices, the widespread utilization of information technology is observed as a strategic approach employed by firms to optimize their financial gains (Wahyoedi et al., 2023). The utilization of information technology has been demonstrated to yield significant advantages for various enterprises (Harahap, Kraugusteeliana, et al., 2023). The factor of changing consumers and preferences has a central role in illustrating how information technology has undergone development and adjustment to meet changing market demands (Harahap, Ausat, et al., 2023; Hopia et al., 2023; Sutrisno et al., 2023). This scenario may arise if the firm possesses highly skilled human resources in the field of information technology (Prastyaningtyas et al., 2023). In an era where consumer preferences can change rapidly, having a workforce that can adapt to technological changes and market demands is a must. Humans as the main element in technology have a crucial role in understanding and responding to changes in consumer preferences.

The presence of human resources plays a crucial role in the achievement of the vision and mission of any commercial organization (Gadzali, Ausat, et al., 2023; Gadzali, Gazalin, et al., 2023). In this context, the factor of changes in consumer preferences plays an important role. Organizations must be able to identify these changes quickly and have competent IT teams to develop relevant solutions (Ausat, 2023; Harahap, Sutrisno, et al., 2023; Touriano et al., 2023). In this case, speed in responding to changes in consumer preferences is key. This observation underscores the interdependence of information technology and individuals as influential variables. Both components mutually contribute to forming a cohesive entity (Arjang et al., 2023). Changes in consumer preferences create new demands on information technology, and humans must develop, manage, and implement these solutions (Sima et al., 2020; Venkatesh et al., 2012).

If an individual within the organization lacks proficiency in upholding the organization's pursuit of achievement, it will fail in the business as well (Sudirjo, Ausat, et al., 2023). The changing factor in consumer preferences can be a significant challenge. If organizations do not have IT teams that can innovate and adapt quickly, then they may not be able to meet consumer expectations, which in turn can threaten the safety of the business. This means that when business organizations have high aspirations to increase profits, and customer loyalty, and become market leaders, they must have excellent human resources in IT (Diawati, Gadzali, Abd Aziz, et al., 2023). In this context, changing consumer preferences should be considered as an opportunity to win the market. A workforce that excels in IT can help organizations understand and respond quickly to these changes.

For instance, can adjust to market dynamics and continually engage in innovative practices (Sudirjo, 2023). Consumer change factors may require constant innovation in information technology. Humans skilled in IT must be able to develop new solutions and respond quickly and effectively to changes in consumer preferences. The aforementioned arguments provide compelling evidence that to effectively compete and endure in the contemporary day, corporate organizations must refrain from relying exclusively on their prior reputation as a determinant of their success (Ausat & Suherlan, 2021). In an ever-

changing world, adaptation to changing consumer factors and information technology is the key to maintaining and improving business success.

It is important to consider that prior achievements might occasionally result in firms persisting with outmoded practices that have lost their relevance in contemporary contexts (Dwivedi et al., 2023). Times have changed significantly, and this has led to changes in consumer preferences and market demands that must be considered in an organization's business strategy (Ferine et al., 2023; Wikansari et al., 2023). Hence, evaluating an organization's resources is imperative, as outlined in the Resource Based View (RBV) Theory. The Resource-Based View (RBV) is a theoretical framework in the field of business that elucidates the mechanisms by which a firm can effectively and consistently attain a competitive advantage using strategically managing its resources (Barney, 1991). Changes in consumer and market preferences are important elements that need to be taken into account in this resource allocation.

One of the fundamental tenets of Resource-Based Theory posits that the long-term success of a corporation hinges upon its capacity to sustain a competitive advantage, primarily attributable to the organization's approach to procuring and using its resources and capabilities (Kasmawati, 2018; Khourouh et al., 2021). Within this particular context, the variable that pertains to alterations in consumer preferences presents novel obstacles that organizations must surmount to establish and maintain a sustainable competitive advantage.

The resources under consideration encompass both tangible and intangible assets found within the realm of information technology as well as the human element. The achievement of a commercial entity is contingent upon its assortment of resources and capabilities since they enable the conversion of those resources into economic advantages (Simon & Bartle, 2012; Sudirjo, Diantoro, et al., 2023). In contemporary times, where information technology assumes a pivotal function in catering to consumer desires, organizations are compelled to diligently oversee their information technology assets and ascertain that their workforce possesses the requisite competencies to effectively use information technology.

In addition, changes in consumer preferences also raise the need for continuous innovation, which is one of the important aspects of creating and maintaining a competitive advantage (Kozioł-Nadolna, 2020). Changes in consumer preferences can create opportunities for product, service, and process innovation, which will help organizations remain relevant and competitive in an ever-changing market. Thus, while the Resource-Based View Theory considers factors that influence competitive advantage, it is important to recognize that changing factors in consumer and market preferences play an important role in determining how a firm's resources, including information technology and human resources, should be managed and allocated to achieve long-term success.

Based on the above description, this study aims to investigate and validate the significant role of information technology and human resources in facilitating the attainment of a predetermined organizational vision and mission. The changing factors in

consumer and market preferences, largely driven by technological advancements, have significantly altered the business landscape, emphasizing the need to examine how information technology and human resources can assist organizations in meeting these challenges. These two factors are complementary and inseparable. Information technology is becoming increasingly critical in facilitating business operations and interactions in the digital age. However, without a skilled and competent human element, such information technology may not be used effectively to achieve organizational goals. Therefore, in the context of rapidly changing consumer preferences, it is important to realize that information technology and people are not separate entities, but rather interacting components in achieving business success.

Physical and non-physical resources encompass various elements, including information technology and the human factor. Changing factors in consumer and market preferences create the need for wise resource allocation (Dorsch et al., 2017). Information technology is a physical resource that includes hardware, software, and technological infrastructure (Frialdo et al., 2023). Human resources are non-physical resources that include the knowledge, skills, and abilities of individuals in understanding, managing, and using technology (Hamadamin & Atan, 2019). Therefore, this research is not only about the management aspect of physical resources but also how the management of non-physical resources, i.e. individual knowledge and skills, can support the efficient use of physical resources. Therefore, this research is also slightly related to the Resource-Based View (RBV) theory that has been slightly discussed in the previous paragraph. RBV is a theoretical framework that provides a view of how organizations can leverage their resources to create a competitive advantage. In the current landscape characterized by evolving consumer characteristics and preferences, the Resource-Based View (RBV) framework gains significance as firms are compelled to assess the contributions of their information technology and human resources towards attaining a competitive edge in this dynamic period.

Furthermore, this research serves as a valuable addition to the ongoing conversation in the study, enhancing its overall appeal and comprehensiveness. This study examines the multifaceted relationship between information technology and human resources in the context of organizational performance, in light of the dynamic nature of consumer change drivers. This paradigm offers a comprehensive and inclusive viewpoint of the crucial significance of information technology and human resources in achieving organizational goals.

## **METHOD**

This paper presents the findings of a descriptive-qualitative study that examines the current literature on information technology, human resources, customer behavior, preferences, and corporate success. The document comprises a compilation of scholarly investigations about the fields of information technology, human resources, consumer behavior, and their consequential effects on organizational efficacy. Moreover, the objective of this section is to furnish a concise overview of pertinent scholarly articles elucidating the fundamental

principles of information technology, human resources, consumer dynamics, and preferences, as well as their possible implications for enhancing corporate performance. A thorough investigation was undertaken with Google Scholar and the Google search engine to identify pertinent papers and data released throughout the timeframe of 1991 to August 2023. Keywords such as IT, HR, consumer changes, and preferences were selected to facilitate the search for pertinent research and to examine their influence on business performance. Additionally, appropriate combinations of these keywords were chosen to refine the search further.

The papers selected as targets were summarised and organized chronologically. Graphs depicting measurements, frequency differences, and percentages were generated based on the general features of the research topics. Furthermore, an examination was conducted on the associations between characteristics of transformational leadership and the psychological well-being of employees within diverse organizational settings.

The main criterion for article selection was the extent of impact and interrelationship of IT, HR, consumer changes, and preferences on business performance. All publications published between 1991 and 2023 that were accessible via Google Scholar and the Google search engine were included in the analysis of this review. In addition, peer-reviewed literature on this topic written in English was also included in this study. Conference papers, non-peer-reviewed articles, and publications not written in English were also included in this study due to their discussion quality and relevance to the topic.

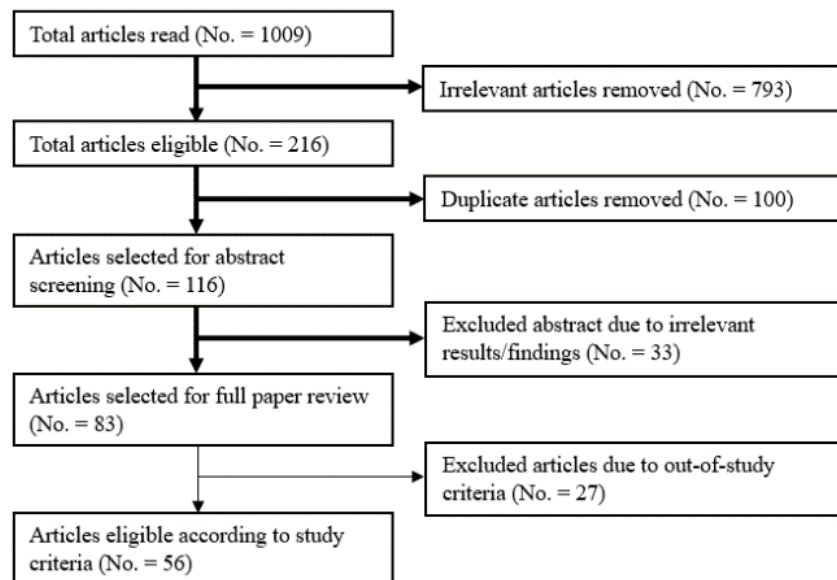


Figure 1. Adapted review process for IT, HR, changing consumer and business preferences, and performance.

A total of 216 papers were selected for further review after an initial evaluation of 1009 published article titles. After removing duplicates, abstracts of 116 papers were selected for screening. After the screening process, the full articles of the remaining 33 publications were selected, while the abstracts of the remaining 83 publications were ignored. After a careful

review of the publications, 27 studies that did not fulfill our inclusion criteria were eliminated. The remaining 56 articles were considered in this study for high-quality data analysis. Each article is displayed in Figure 1.

## **FINDING AND DISCUSSION**

The Resource View (RBV) concept, initially formulated by Wernerfelt in 1984, serves as a pertinent theoretical framework for comprehending shifts in consumer behavior and preferences. The theory first evolved within the realm of business strategy, supplanting the previously prevailing notion of industrial organization. The Resource-Based View (RBV) offers valuable insights into how a firm's resources and capabilities can effectively address the evolving dynamics of consumer behavior and preferences (Nagano, 2020). The Resource-Based View (RBV) theory posits that enterprises can sustain a competitive advantage in dynamic marketplaces by effectively utilizing resources that possess high value, and rarity, and are challenging for competitors to imitate (Rockwell, 2019). Within the framework of evolving consumer dynamics and shifting preferences, pertinent resources encompass a comprehensive comprehension of consumer inclinations, the capacity to modify products or services by such fluctuations, and the aptitude to engage in innovative practices that align with evolving consumer requirements.

Moreover, the Resource-Based View (RBV) paradigm emphasizes the concept that an organization's performance depends on its resources and capabilities. In the field of consumer dynamics, the notion of customer change refers to the importance of firms having the ability to constantly understand, analyze, and adjust to shifts in customer preferences. This refers to the ability to efficiently utilize information technology and human resources with the necessary knowledge and skills to adapt and respond to these significant changes. The Resource-Based View (RBV) provides a theoretical framework that assists firms in the identification and management of their resources and capabilities to effectively respond to changes in consumer behavior (Sugiarno & Novita, 2022). Organizations can employ the Resource-Based View (RBV) framework as a strategy to understand customers' changing preferences and sustain their competitive advantage in the market. This notion facilitates the identification of competitive advantages within businesses and the formulation of strategies to maintain them in the face of continuous change.

The Resource-Based View (RBV) hypothesis is widely regarded as a relevant theoretical framework for analyzing the dynamics of evolving customer behavior and preferences. The proposition suggests that the performance of a company is not simply determined by its tangible assets, but is also influenced by its intangible competencies. The Resource-Based View (RBV) recognizes the importance of tangible assets, including infrastructure, technology, and physical resources. Nevertheless, it is crucial to highlight the significance of intangible attributes such as knowledge, skills, company culture, and innovation ability when it comes to establishing a competitive advantage (Bharadwaj, 2000; Khan et al., 2021; Wu & Chiu, 2015).

Additionally, the Resource-Based View (RBV) theory posits that a company can achieve a competitive advantage by leveraging its resources and capabilities to carry out its

functional activities with greater efficiency and effectiveness in comparison to its competitors. In the given context, businesses that possess abundant resources and exceptional capabilities in the fields of information technology and human resources will have the ability to achieve a significant competitive advantage. According to the research conducted by (Farida & Setiawan, 2022), it is crucial for organizations to consistently foster and maintain their diverse capabilities, which cover both information technology and human resources. The Resource-Based View (RBV) theory offers valuable insights into how organizations can effectively address evolving customer demands. This is achieved by cultivating intangible competencies, such as the ability to respond to market fluctuations and implementing exceptional human resource management practices. In an epoch characterized by unpredictability and perpetual transformation, possessing these capacities might serve as a pivotal determinant in sustaining and augmenting a company's competitiveness inside a swiftly evolving market.

In contemporary times, enterprises are more dependent on information as a fundamental determinant of shifts in consumer behavior and their inclinations. Therefore, organizations must cultivate proficiencies in several facets of information technology (IT) to adeptly address shifts in customer behavior and evolving market requirements. This statement underscores the need for firms to be abreast of information technology advancements and leverage them as strategic instruments. The initial phase involves allocating resources towards IT investment, yet this action alone is insufficient. To maximize the utilization of available IT technologies, businesses must comprehensively transform their daily operational processes. This encompasses the enhancement of IT infrastructure, the refinement of IT processes, and the cultivation of IT knowledge within the company. Therefore, to improve their IT capabilities, companies should focus on developing the three main aspects of IT competence: IT infrastructure, IT operations, and IT knowledge (Byrd et al., 2004).

It is important to remember that IT capability is not only limited to the technology itself but also involves the ability to select, accept, configure, and deploy IT according to business needs. IT capability is conceptualized as a three-part construct that interacts with and impacts an organization's ability to derive strategic value from its IT spending (Werder & Richter, 2022).

Previous studies clearly show that organizations that actively use information technology in their business operations tend to be more competitive (Verhoef et al., 2021). Research has also confirmed that companies that use IT effectively and progressively achieve significantly better performance than those that do not (Rajapathirana & Hui, 2018). These results underscore the positive and significant influence of information technology capabilities on overall firm performance (Nwankpa & Roumani, 2016).

In a modern business context that focuses on changing consumers and their preferences, information technology plays an important role in helping companies adapt and meet changing customer expectations. Recent studies also confirm that information technology is a key factor in business success today (Mgunda, 2019; Subramanian, 2018).

Therefore, companies that want to continue to compete and succeed in a dynamic business environment must prioritize the development of IT capabilities as an integral part of their business strategy.

Many authors and researchers, however, hold the concurrent view that the most valuable asset in a company is its people, due to the contributions and expertise they bring to the table (Akter et al., 2022; Dwivedi et al., 2022). Therefore, the capacity of human resources (HR) in an organization is of paramount importance in the context of consumer changes and ever-changing preferences. The basic assumption in the "VRIN" framework (valuable, rare, difficult to imitate, and non-substitutable) is that HR skills and knowledge are very difficult for competitors to replicate (Barney, 1991). In other words, an organization's HR capability is its ability to implement the best procedures for managing employees, which includes performance evaluation, employee development, and compensation and benefits (Alqudah et al., 2022).

In this study, we propose a comprehensive conceptualization of HR capabilities that organizations need to consider. HR capabilities are seen as a construct consisting of four key dimensions:

1. **Employee Selection Procedures:** The initial dimension, encompassing Employee Selection Procedures, is intricately intertwined with the processes of recruitment and hiring within organizations. Companies expect to prioritize candidates who not only demonstrate proficiency in technical skills but also exhibit capabilities in information generation and dissemination. Furthermore, emphasis should be placed on individuals who actively embody the company's core values and align with the desired work style. This multifaceted approach to employee selection underscores the importance of not only technical competence but also the alignment of candidates with the organizational ethos and the cultivation of a work culture that resonates with the company's overarching vision.
2. **Employee Training:** The second dimension, denoted as Employee Training, delves into the augmentation of employee performance achieved by acquiring new knowledge and skills via meticulously designed and executed training programs. In this realm, organizations are tasked with fostering an environment conducive to continuous learning, wherein employees not only enhance their existing competencies but also gain proficiency in novel areas relevant to their roles. The emphasis lies in the strategic implementation of training initiatives that go beyond mere skill acquisition, aiming to cultivate a dynamic workforce capable of adapting to evolving industry landscapes. Consequently, employee training becomes a pivotal element in the organizational framework, contributing not only to individual growth but also to the overall resilience and competitiveness of the company in the ever-evolving professional landscape.
3. **Employee Engagement:** The third dimension, encapsulated by the term Employee Engagement, extends beyond mere participation to signify a heightened level of involvement and contribution from employees within the organizational fabric. This concept underscores the significance of fostering an environment wherein employees



are not just participants but active contributors to the decision-making process. It entails a comprehensive approach to organizational dynamics, emphasizing the integral role employees play in shaping transformative initiatives and fostering innovation. Employee Engagement, in its essence, transcends the conventional boundaries of involvement, highlighting the imperative for organizations to empower their workforce, acknowledging and leveraging the wealth of insights and perspectives employees bring to the table. This multifaceted engagement catalyzes a culture of collaboration, driving not only organizational development but also cultivating a sense of ownership and commitment among the workforce.

4. **Reward Practices:** The fourth dimension, encompassed by the term Reward Practices, intricately revolves around the organizational compensation system and the diverse array of strategies employed to acknowledge and incentivize personnel. This dimension recognizes the pivotal role that a well-structured reward system plays in cultivating a motivated and engaged workforce. It extends beyond the traditional realms of monetary compensation, encompassing a spectrum of recognition initiatives, performance-based bonuses, and non-monetary incentives tailored to acknowledge and reinforce exemplary contributions. Effective Reward Practices entail a nuanced understanding of employee preferences and motivations, aligning incentives with organizational goals to promote a symbiotic relationship between individual achievements and the overarching success of the company. This holistic approach not only serves as a means of expressing appreciation but also functions as a strategic tool to attract, retain, and continually inspire a high-performing and dedicated workforce within the organizational framework.

The four dimensions mutually support HR's ability to deal with changing consumers and their preferences. Employees who are competent in this regard will be able to easily



Figure 1. Four Dimensions of HR Capability

adapt to the ever-changing technology and regulatory changes (Kodden, 2020). Company

management, especially leaders, have an important role in supporting the development of employee skills in information technology. This is a trigger for employees to become more competent in information technology careers, which in turn creates superior company performance.

Several previous studies confirm that human resource management has a significant influence on business performance (Alredaisy, 2023). Experts also support the view that HR capabilities are a key driver of superior business performance (Diawati, Gadzali, Mahardhani, et al., 2023; Rustiawan et al., 2023; Wongsansukcharoen & Thaweepaiboonwong, 2023). HR capabilities are also recognized as an important predictor of a firm's competitive advantage (Vokić & Vidović, 2007) and a significant determinant of a firm's business performance (Ausat et al., 2023; Kamar et al., 2022; Selvam et al., 2016). Therefore, the development of HR capabilities in organizations is of paramount importance in the face of changing consumers and preferences in this digital era.

Substantially, modern businesses cannot function without information technology, and most of them require electronic marketplaces to gain a foothold in their respective industries. In the context of changing consumers and preferences, information technology plays an increasingly important role in helping companies adapt and meet changing customer expectations. Previous research has also underlined how important human resources and information technology are in achieving superior firm performance (Aydiner et al., 2019; Nicolás-Agustín et al., 2022; Youndt et al., 1996). As a result, modern businesses must focus on developing their HR capabilities as an integral part of their business strategy to respond to changing consumer and dynamic preferences.

## **CONCLUSION**

The findings of this study largely reveal the results of previous studies that found the fact that information technology (IT) resources and human resources improve the economic success of the company. This study concludes that information technology (IT) resources and human resources play an important role in improving firms' economic success. IT resources, such as software, network infrastructure, and data management systems, support operational efficiency and innovation. Skilled human resources ensure optimal management of these technologies. Collaboration between the two enables companies to adapt to market changes, improve productivity, and optimize business processes for sustainable economic growth and enhanced competitiveness. This suggests that the interconnection between these two aspects is crucial to the implementation of company operations. The utilization of human skills in the field of information technology yields significant advantages for profit-driven enterprises. Furthermore, it is important to note that the contemporary corporate landscape is characterized by a growing level of dynamism and turbulence. Business entities must recognize the growing significance of information technology capabilities and human resources in contributing substantial advantages to their long-term performance. Multiple studies have also demonstrated a significant correlation between a company's long-term performance and the technology it employs. Furthermore, the competencies of human resource management play a crucial role within a business. This

situation should consistently be a focal point in the company's activities due to the distinct attributes of both entities. Consistent with the Resource View theory, which posits that distinctive capabilities lead to competitive advantage, these unique capabilities possess four fundamental attributes: value, scarcity, inimitability, and non-substitutability. In the context of evolving consumer behaviors and shifting tastes, business organizations must delve further into comprehending the significance of integrating information technology (IT) resources and human resources (HR) capabilities to attain a competitive edge and ensure enduring long-term success.

The results of this study make a very meaningful contribution to entrepreneurs and the academic world. In the context of consumer changes and changing preferences, the conclusions of this study encourage entrepreneurs to make wiser investment decisions. They now have concrete evidence that investment in information technology (IT) and human resources has a positive influence on business performance. In an increasingly dynamic business environment, entrepreneurs should understand that information technology and human capital capabilities can provide substantial benefits to their long-term performance. The integration of information technology and high-quality human resources has the potential to establish a sustained competitive edge. Furthermore, this study underscores the significance of enhancing human resource competency inside firms. Effectively managing the skills and knowledge of employees, which encompasses the provision of training in technological advancements, is a crucial determinant. This facilitates the development of a proficient staff in response to continuous technological advancements. Furthermore, this research not only offers practical information for employers but also makes a valuable contribution to the academic field, particularly within the realms of business administration and management study courses. The findings of this study have the potential to stimulate additional discourse and investigation in this field, thereby enhancing the scope of scientific knowledge. This research serves as a source of motivation for entrepreneurs, highlighting the significance of integrating information technology (IT) and human resources (HR) assets to foster innovation within their businesses. Organizations possess the ability to devise novel strategies, enhance work processes for increased efficiency, and develop products or services that align more effectively with evolving client preferences. The findings of this study establish a robust basis for entrepreneurs to attain a competitive edge and maintain long-term economic success amidst a period characterized by fluctuating consumer preferences.

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