

## Human Capital Sustainability in Information-Intensive Service Systems: Strategic Leadership, Learning Culture, and Employee Empowerment

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**Abstract.** The current study focuses on the degree to which a strategic leadership and an organizational learning culture support the sustainability of the human capital in service systems that are information-intensive and the role of employee empowerment in the process is subject to review. Based on the conceptualizations of the Resource-Based View and the service capability theory, the present research visions the notion of sustainable human capital as a paradigm service-enabling capability, which serves to facilitate service reliability, adaptability, and innovativeness in digitally transforming banking institutions. The survey data were gathered on the basis of a sample of 467 employees and managers working with big commercial banks in Jordan and analyzed using Partial Least Squares Structural Equation Modeling (PLS -SEM). The findings show that strategic leadership and organizational learning culture have a significant role in employee empowerment which in turn has a positive impact on the human capital sustainability. These relationships are mediated partially by employee empowerment, which implies its role in transforming leadership vision and learning resources into the revitalization of service capability. The findings emphasize that the empowered human capital plays a critical role in maintaining service quality and resilience in the information-intensive service environment. Therefore, the paper contributes to the research on service science and informatics by demonstrating how the leadership and learning systems can support the achievement of sustainable human capital results and outcomes through empowerment in digitally mediated service systems.

**Keywords:** Strategic Leadership, Organizational Learning Culture, Employee Empowerment, Human Capital Sustainability, Banking Sector.

## 1. Introduction

This Study is categorically placed at the field of service science and informatics with the conceptualization of banks as information-intensive service systems. The sustainability of human capital is described not only as an outcome of human resource but as a service ability that allows delivering the consistent quality of service, service operation flexibility, and digitally facilitated value co-creation. The combination of strategic leadership, organizational learning culture, and employee empowerment makes the study in line with the focus of JLISS, which is on service systems, information infrastructures, and data-enabled organizational capabilities. Human capital sustainability (HCS) is becoming an ideal strategic facilitator of long-term performance, innovation, and adaptability in organizations in the modern dynamic and knowledge-driven economy (Ben-Hador & Yitshaki, 2025; Dhoopar et al., 2023). With the digital transformation of the industries and the increase of competition intensity, the empowerment of human capital as the mechanism of sustaining the competitive edge has turned out to be crucial in the context of its perpetual renewal, ongoing learning, and empirical leadership (Greve, 2020); (Alzuod et al., 2025) In this framework, there is a critical issue of talented employee retention, talent management, and development of human capital sustainably in an ever-changing environment in the banking sector of Jordan, one of the backbones of the country economy (Rizzi et al., 2018).

Modern organizations can no longer fight using financial or technological resources but perish differentiate themselves using the human capital resources that they have, which are valuable, rare, inimitable, and non-substitutable (VRIN) (Barney, 1991; Walford-Wright & Scott-Jackson, 2018) . Nevertheless, such resources are maintained based on the strategic alignment of vision, mechanisms of organizational learning, and management practices involving empowerment (Wang et al., 2025). The strategic leadership is crucially important to define organizational purpose, motivate people potentials and instill a culture of empowerment that enables the organization to develop its employees in a sustainable manner (Alkhazali et al., 2020). Similarly, the culture of organizational learning (OLC) ensures the ongoing creation of knowledge, collaboration, and skills, without which maintaining the sustainability of the human capital is impossible (Alsheikh et al., 2017) (Alghusin & Al-Ajlouni, 2020). Although these dynamics have been increasingly started paying attention to, there is still a vast difference between leadership and employee-level empowerment in most banks in Jordan, where the majority of decision processes are centralized and where limited space is given to participative learning and empowerment at the individual level (Alghusin & Al-Ajlouni, 2020). Consequently, motivation, engagement and innovative behavior of employees can reduce, which would jeopardize sustainability of the human capital in the long run. In an effort to solve this question, the research paper examines the role played by strategic leadership and organizational learning culture in increasing human capital sustainability in the middle of employee empowerment.

This research relies on the Resource-Based View (RBV) theory and theorizes about human capital as a management strategy, in other words, strategic resource that needs to be developed purposefully and empowered in order to achieve a long-term organizational value (Barney, 1991; Ployhart & Moliterno, 2011). In this sense, the strategic leadership and a culture of learning can be seen as enabling competencies that create empowered employees who can adapt, be innovative and can contribute to long-term performance (Al-Abdullat & Dababneh, 2018). In addition, employee empowerment is a dynamic process, which transforms the leadership vision and culture of learning into the actual human capital sustainability results, which leads to resilience, engagement, and ongoing development (Al-Asoufi & Akhorshaideh, 2017; Mohammad et al., 2022).

The empirical research into these interrelations is scarce in Middle Eastern settings as cultural and institutional peculiarities can mediate the empowerment and learning behaviors (Sheikh et al., 2013). Thus, the research work can be used in the literature to formulate and empirically test an integrated model between strategic leadership, organizational learning culture and human capital sustainability in

terms of employee empowerment in the banking sector within Jordan. It is hoped that the results will contribute to the theoretical knowledge in the RBV system and provide any useful advice to managers who aim to enhance sustainability in human capital by referring to leadership and learning intervention. Theoretical contribution. The work enhances the Resource-Based View (RBV) by providing a substantial gap in the literature by demonstrating a crucial issue of resource-based theory, in which the conversion of the intangible organizational resources into sustainable human-capital performance in the digitally transforming and service-intensive settings is commoditized inadequately by the RBV. Although the RBV clarifies the reasons of why strategic leadership and an organizational-learning culture can be invaluable and hard-to-copy resources, the mechanism by which these resources are implemented in employees day-to-day decision-making process, commitment, and long-term development is theorized as unclear. As a result, we formulate employee empowerment as a dynamic service capability and conversion processes that allows the organization to mobilize leadership vision and learning routines into the long-term human-capital renewal for example, retention, continuous capability upgrading, and adaptability (Ali et al., 2023). By defining empowerment as this conversion ability, as opposed to a proximal attitudinal result, the model defines when and how leadership and learning resources bring about a sustained sustainability of human capital. The mechanism is empirically tested by the study in the Jordanian banking industry, which can be described as a hierarchical and rapid digitalization environment, thus broadening the scope of the boundary conditions of the explanations of empowerment-based RBV in the new service economies. Service science approach. Besides its contribution based on RBV, the given research is based on a service science approach to the organization of banks as complex systems of service where value is co-created during the interactions between the employees, customers, and digital infrastructure. In that light, sustainability of human capital is not only an internal result of an organization, as it becomes a vital facilitator of service reliability, flexibility, and innovation (Ali et al., 2022). The empowered employees will be in a better position to address dynamic customer demands, service breakdown, and digitally enabled banking services. Based on this, the strategic leadership and organizational learning culture is not only the conceptualization of driving the internal workforce sustainability but also the core mechanisms that contribute to the resilience of service systems in the banking sector.

Finally, this study underlines the strategic importance of integrating empowerment and learning practices into the leadership systems that would make the sustainability of human capital as one of the primary intangible resources and long-lasting sources of competitive advantage in the contemporary banking sector (Bombiak, 2017; Kim et al., 2022). In addition to contextual scarcity, there is an apparent theoretical blank in terms of the transformation of strategic leadership and learning culture, as intangible resources, to long-term results of the human capital. Past studies often treat empowerment as the consequence of something, or as a generic mediator; the present research revises the previous definition of empowerment as a capability operationalizing the resource-to-performance relationship of the Resource-Based View on the employee level.

## **2. Literature Review**

### **2.1 Strategic Leadership and Human Capital Sustainability**

The process is referred to as strategic leadership as it describes the abilities of the top management to design decision-making processes in a way that enhances the long-term sustainability of the organization without compromising financial sustainability in the short term (Abdeen et al., 2025). Successful strategic leaders will create the compelling vision, set the resources based on it, and develop the systems fostering their commitment, adaptability, and performance on all the organizational levels (Mohamed Shokry et al., 2024). In the Resource-Based View, strategic leadership is a type of intangible resource that enables organizations to merge, restructure and utilize their human resources in an effort to maintain a competitive advantage (AlQershi, 2024).

It is confirmed in the numerous studies that the impact of leadership practices was an enormous factor to human capital sustainability (HCS) through shaping the psychological and structural environment demanded to sustain perpetual employee growth (Correia et al., 2024; Ha & Diem, 2025). Advocates of a common vision, decision-making, and innovation are inspirers of intrinsic motivation and strength in employees ensuring sustainable human capital (AlKetbi & Rice, 2024; Martínez-Falcó et al., 2024).

The idea of leadership as a means to retain talents within the organizational domain is increasingly seen as one of the organizational competences within the context of the Jordanian banking sector where strategic alignment and leadership agility are the two factors that play a significant role in digital transformation (AlKetbi & Rice, 2024). Therefore, it is expected that strategic leadership becomes one of the main preconditions of human capital sustainability and employee empowerment.

## **2.2 Organizational Learning Culture and Sustainable Human Capital**

organizational learning culture (OLC) refers to the common values, norms, and practices that allow the organization to continue to acquire, spread, and use knowledge (Darmawan, 2025). The ability to adapt to change, maintain innovation, and retain human resources due to the development of dynamic capabilities is more characteristic of organizations that develop learning-oriented cultures (Lee, 2024).

To the case of the resource-based view (RBV), an effective learning culture enhances the value and the scarcity of human capital by instilling knowledge-based skills which are hard to replicate (Lee & Han, 2024). However, in learning-oriented organizations, skills development is only one of the aspects but employees are encouraged to engage in reflective activities, problem-solving, and experiments so that the capital of human resources can be renewed continuously (AlSaied & Alkhoraf, 2024; Nimran et al., 2024). With banking institutions, where the digitization of customer service and the digital operations largely depend on the human experience of the employees, a learning culture can significantly increase staff engagement, flexibility, and retention (Teelken, 2008)v.

Nevertheless, OLC leads to sustainability only when its effectiveness is not guaranteed automatically, but the employees are sufficiently endowed to take action based on the new knowledge acquired and initiative (Temitayo Oluwaseun Abrahams et al., 2024). This highlights the fact that empowerment as an intermediate variable between human-capital sustainability and learning culture should be analyzed.

## **2.3 Employee Empowerment as a Mediating Mechanism**

Employee empowerment is the process of giving and entrusting employees with empowerment so that they make important decisions, which affect their working life and the outcome of the organization overall (Hutomo et al., 2020). Empowerment also strengthens the feeling of ownership, motivation, and competency of employees, thus enhancing their increased creativity, innovation and performance (Ahmad et al., 2022). Investing in human capital through the Resource-Based View, the idea of empowerment transforms it into the dynamic strategic capacity that generates long-term value to the organization (Obeng et al., 2021).

As of today, the documentation of empirical evidence also suggests that the association between leadership practices and organizational outcomes is mediated by the notion of empowerment and aimed at directing leadership impact on employee-level engagement and innovation (Al-Asoufi & Akhorshaideh, 2017; Obeng et al., 2021). Similarly, an enabling learning environment increases the empowerment through promoting the autonomy, trust, and shared problem-solving (Hutomo et al., 2020; Obeng et al., 2021). Empowerment is still a problematic area in the Jordanian banking industry due to the hierarchical decision-making pattern; nevertheless, it leads to higher commitment, job satisfaction, and employee retention in the case of effective implementation (Khan & Muktar, 2024).

As a result, empowerment serves as the psychological and behavioral intermediary between the strategic leadership and a learning culture to sustainable levels of human-capital results, which is consistent with the focus of the Resource-Based View that seeks to exploit immeasurable human resources to gain a sustained benefit (Barua et al., 2024).

## **2.4 Human Capital Sustainability: An RBV Perspective**

Human capital sustainability refers to the ability of an organization to maintain, replenish, and improve labor resources over a specific duration by ever-affirming, developing, and supportive strategies (Feng et al., 2024; Mohamed Shokry et al., 2024). Resource based view is based on the view that resources that possess the characteristics of valuable, rare, inimitable and non-substitutable generate sustainable competitive advantage (Barney, 1991). Human capital sustainability, in this view, is the final stage in the strategic effort towards the creation of employees as long-term investments instead of expeditive costs (Nambisan et al., 2019).

The sustainability of human capital through leadership and learning culture creates a culture of trust, development and empowerment where employees are encouraged to constantly advance their skills and in addition to helping achieve the organizational goals in innovative ways (Feng et al., 2024; Mohamed Shokry et al., 2024). However, weaknesses still exist in the integration of how those factors must interact, especially in new economy realization or the emerging economies like Jordan, the structural constraints and cultural hierarchies of empowerment and innovations may constrain empowerment and innovation. It fills this gap by proposing and testing a holistic RBV based approach to investigate perceptions of the strategic leadership and organizational learning culture on the human capital sustainability as perceived through employee empowerment in Jordanian banks.

## **2.5 Research Gap and Contribution**

Although previous studies investigated the issue of leadership and learning culture and empowerment, there is still little theoretical understanding on how the aspects of organizational resources can be transformed into sustained human resource outcomes in hierarchical, service-based, and digitally changing organizations. The extant resource-based view-based studies often refer enabling as an outcome or as a generic mediator, but fail to explain how it plays the role of a conversion mechanism that mobilizes the leadership and learning resources at employee level. The proposed work is aimed at fixing this theoretical gap to explain how the empowerment effect is manifested as a service capability that mediates the strategic intent and learning infrastructure and promotes renewal of human capital sustainably.

Most of the existing research done on the interrelationships between leadership, learning, and empowerment have been based on the Western and East Asian settings, and there is little empirical data available that up to now is based on Arab economies and, specifically, on the Jordanian banking industry (Agarwal et al., 2019; Bekele et al., 2024). This is an important region gap since the cultural, institutional, and managerial aspects of Arab organization including hierarchical organizational structure, centralized power, and collective work orientations could have impacts on how strategic leadership and learning culture stimulate empowerment and hence human-capital sustainability (Obaid et al., 2022). Therefore, models developed in other parts of the world would not be sufficiently powerful to reveal the processes through which leadership and learning can have an impact on the banking systems of the Middle East through the mediation of empowerment.

Also, the current body of literature has a tendency of conceptualizing empowerment or organizational learning as standalone outcomes as opposed to motivating mediating processes through which the inputs of the leadership can be subjected to sustainable human-capability capabilities. The narrowness of this conceptualization inhibits our knowledge of the interaction of intangible organizational capabilities to generate long term sustainability results. Conversely, the current research incorporates the existing theory of resource-based view (RBV) and the recent discourse of human-

resource sustainability to come up with an effective framework that represents the dynamic interactions of strategic leadership, organizational learning culture, employee empowerment, and human-capital sustainability. In this integration, the paper further promotes the thesis that empowerment is an essential channel of conduction according to which leadership and learning practice has a human-capital benefit that may be seen as long-term sustainable.

The value of this study is diverse. In theory, it is an extension of RBV in that intangible leadership and learning capabilities are shown to be strategic resources that can create sustained human-capital advantage mediated by in terms of the role of empowerment. Empirically, it offers context-specific information about the banking sector in Jordan hence expanding the world knowledge on the dynamics of leadership and sustainability underrepresented in Middle Eastern settings. In practice, the research provides practically significant conclusions to policy-makers and bank managers related to the significance of empowering leadership and learning measures that would ensure long-term human-capital sustainability and robustness in a digitally and economically blistering world.

### **3. Theoretical Framework and Hypotheses Development**

#### **3.1 Theoretical Framework: Resource-Based View (RBV)**

Strategic leadership and organizational learning culture in the context of informatics affect the interactions of the employees with information systems and digital platforms, as well as data-driven decision support tools. Empowered employees are better placed to utilize digital infrastructures, make sense of data analytics, and adapt services process in real time. In turn, empowerment has the effect of mediating organizational informatics capabilities and sustainable service performance. Resource-Based View (RBV) offers a solid theoretical basis on how organizations can attain sustainable competitive advantage by successfully applying valuable, rare, inimitable, and non-substitutable (VRIN) resources (Barney, 1991). In this light, human capital is considered as one of the strategic resources that should be matured, empowered, and frequently aligned to organizational objectives to achieve sustainability in the long-run (Bekele et al., 2024; Mohamed Shokry et al., 2024). On the one hand, in the environment of a growing competition between banks of Jordan, where the quality of services, the relationships with the customers, and the dexterity of the technologies become the key determinants in the competition, human-capital sustainability (HCS) serves as the decisive factor.

Higher-order capabilities such as strategic leadership and an organizational learning culture are seen as the means of helping organizations to create, defend, and reproduce their human-capital resources (Bekele et al., 2024; Dubey & Gunasekaran, 2016; Feng et al., 2024). The leadership defines the strategic path and develops the empowering environment, whereas a learning culture helps to acquire knowledge and renew the capabilities, which is necessary to retain the high-performing employees. Employee empowerment, in its turn, is a mediating variable, which transforms these mythical capabilities into long-term human-capital results. Thus, the RBV that provides theoretical perspectives on the connections between leadership and learning culture as organizational capabilities and human-capital sustainability is achievable through empowerment as a value-creating activity. In order to understand the main hypothesis of the study, the conceptual framework of the study was drafted in the form of Figure 1, according to which the research suggested that strategic leadership and organizational learning culture have positive effects on human-capital sustainability through the mediating variable of employee empowerment. In the light of service science, RBV based organizational capabilities work in service eco systems where employees act as main resource integrators. This role of integration is strengthened by employee empowerment as it empowers frontline and managerial employees to translate leadership will and organizational learning into a continuous delivery of services and adaptable problem-solving and service innovation. Empowerment thus acts as a service-enabling capacity that connects the internal resource sustainability and the external services delivery level in terms of quality of service, responsiveness and experience by the customer. According to the Resource-Based View,

existence of valuable organizational resources is not necessarily a guarantee of sustained results unless there is mobilization and implementation of the same. The micro-level mechanism that transforms the strategic leadership and organizational culture based on learning into a sustained human capital value is employee empowerment. Empowerment allows the employees to make discretionary decisions, use the knowledge gained, and continually upgrade their skills in response to the service needs fluctuations. Empowerment in this case acts as a service capability, which mobilizes the RBV resources to be invoked in the daily behaviors and decision-making systems of the employees.

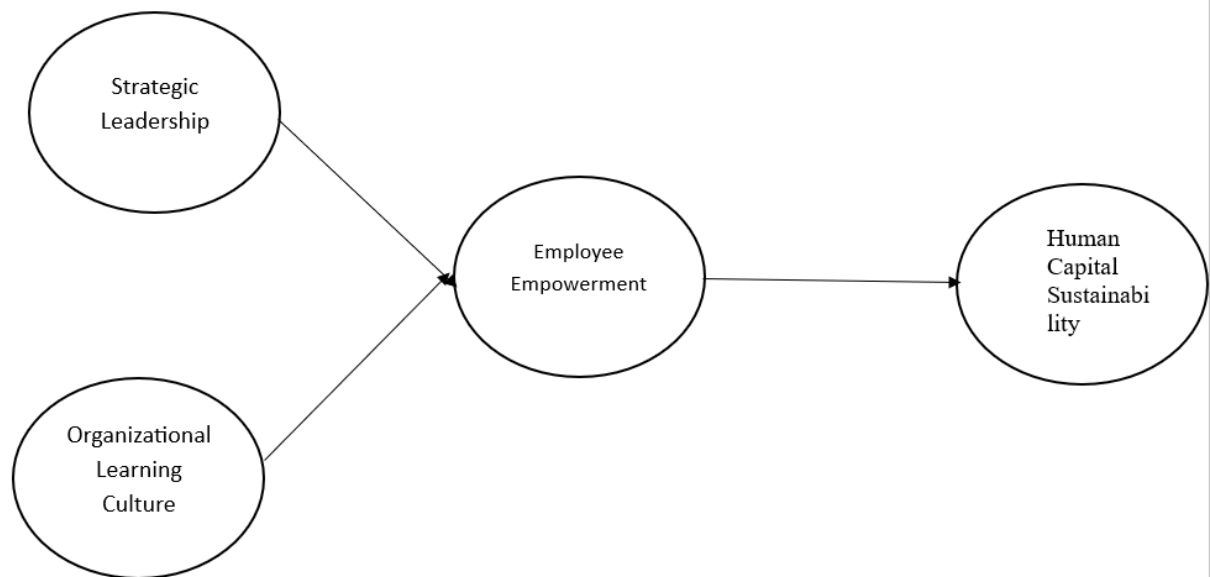


Fig.1: Conceptual Framework of the Study

### 3.2 Strategic Leadership and Employee Empowerment

Senior managers need to adopt strategic leadership whereby they inspire, align, and mobilize organizational members towards achieving long-term strategic goals (Aral & Weill, 2007). Participative and visionary individuals are likely to increase trust, autonomy, and psychological ownership of employees, thus increasing empowerment (Ahmad et al., 2022). Empowerment helps the employees have confidence in making decisions, taking initiative and bringing innovation to the organizational performance (Khan & Muktar, 2024).

The evidence-based literature confirms that the leadership styles that prescribe communication, involvement, and recognition have a positive implication on the level of employee empowerment and engagement (Al-Asoufi & Akhorshaideh, 2017; Barua et al., 2024). Strategic leadership is important in providing opportunities to the employees to feel empowered and in countering the inflexible control systems witnessed in the Jordanian banking environment where autonomy of employees is often suppressed by organizational structures. Therefore, the given study presupposes the hypothesis as follows:

**H1:** Strategic leadership has a positive and significant effect on employee empowerment.

### 3.3 Organizational Learning Culture and Employee Empowerment

The organizational learning culture (OLC) allows creating the atmosphere where employees are allowed to exchange ideas, take calculated risks, and implement the newly gained knowledge in practice contexts (Teelken, 2008). The culture enhances empowerment by providing psychological safety and

structural support that is required to make autonomous problem-solving and decisions (Nimran et al., 2024; Temitayo Oluwaseun Abrahams et al., 2024). In the context of the resource-based view (RBV), OLC improves adaptive capacity of the business by transforming knowledge into the renewable source of value (Temitayo Oluwaseun Abrahams et al., 2024).

Empirical data show that employees who require organizations to encourage life-long learning and experimentation acquire an augmented feeling of self-efficacy and feel like they have more control over their work, which are vital aspects of power (Nimran et al., 2024; Temitayo Oluwaseun Abrahams et al., 2024). This means that a learning culture in organizations is more likely to influence the employees in a positive way to become proactive and innovative. Based on it, the hypothesis below is put forward:  
**H2:** Organizational learning culture has a positive and significant effect on employee empowerment.

### **3.4 Employee Empowerment and Human Capital Sustainability**

This type of employee empowerment is the key motivator of sustainability of the human capital because it contributes to the p(Ahmad et al., 2022; Hutomo et al., 2020). Empowered employees demonstrate a higher tendency to engage in learning and innovation, as well as self-development programs, thus increasing their performance in the sustainability of organizational operations (Al-Asoufi & Akhorshaideh, 2017). As per the Resource-Based View, human capital is transformed into a dynamic capability with empowerment to achieve the long-term competitive advantage of the organization by simply turning it into a dynamic ability (Anjum et al., 2025).

Empirical research in the recent past also supports the fact that when employees are empowered, their levels of retention, job satisfaction, and alignment to organizational needs are high, which directly reinforces their human capital sustainability (Anjum et al., 2025). In this regard, the hypothesis is as follows:

**H3:** Employee empowerment has a positive and significant effect on human capital sustainability.

### **3.5 Strategic Leadership and Human Capital Sustainability**

Strategic leaders influence the sustainability of the human capital by crafting systems, policies, and behaviors that support the growth and development of the employees (Aral & Weill, 2007). They offer strategic guidance, make effective resource allocation, and implement employee support by enabling the learning processes and empowering employees (Dickson et al., 2021). Ethical commitment, vision, and inclusiveness leadership behaviors were found to foster the long-term engagement levels and retention of employees (Alzghoul et al., 2024).

Challenges in sustainability of human capital that requires concepts of continuity in human resource growth and enthusiasm realignment applies in the Jordanian banks where the workforce has to operate in an overly changing digital and regulatory environment. As a result, the next hypothesis is stated:

**H4:** Strategic leadership has a positive and significant effect on human capital sustainability.

### **3.6 Organizational Learning Culture and Human Capital Sustainability**

Organizations with a healthy learning culture create the environment in which the development and renovation of human capital take place in the long-term perspective (Mohamed Shokry et al., 2024). By means of perpetual learning, feedback regimes and teamwork processes, the staff members develop competencies that maintain the performance and flexibility (Feng et al., 2024). A learning culture can add value and inimitability to human capital based on a resource-based-view perspective because it instills tacit knowledge and shared intelligence that can hardly be generated by the competition (Bekele et al., 2024).

In the banking industry, lifelong learning ensures that the workforce in the organization is technologically savvy, customer-focused, inventive-minded, as well as all the attributes of sustainable human resource (Khalid & Abdul, 2025). In this respect, the hypothesis expressed below is promoted:

**H5:** Organizational learning culture has a positive and significant effect on human capital sustainability.

### **3.7 The Mediating Role of Employee Empowerment**

Strategic leadership and an organizational learning culture have a causal relationship with employee empowerment that produces sustainable outcomes in human-capital. Strategic leadership builds strategic intent and developmental resources; organizational learning culture offers knowledge creation and sharing routines. However, the resources are not utilized since they are structurally present but behaviorally dormant without empowerment.

The empowered workers are offered freedom, participative decision-making power, and an illusion of influence so that they can internalize the vision of the leadership and chances of learning. This type of empowerment improves flexibility by allowing employees to be responsive to changing service needs; it enables retention through creating a sense of psychological ownership and commitment; and it encourages renewal of capabilities through constant learning and acquisition of skills. In service-capability sense, empowerment transforms the fixed organizational resources to dynamic human-capital procedures that maintain quality on the workforce in the long run.

Strategic and structural conditions leading to the sustainability of human capital are provided by leadership and a learning culture, and employee empowerment as the main motion, initiating and realizing these conditions are realized (Hutomo et al., 2020). Empowerment allows employees to align the leadership and learning opportunities vision into proactive behavior, innovativeness, and the ability to get engaged in the long run (Ahmad et al., 2022). In the eyes of the resource-based view, the conversion process is empowerment that changes the intangible leadership and learning capabilities into the sustainable human-capital benefits (Anjum et al., 2025; Barua et al., 2024).

A number of empirical studies have confirmed the mediating nature of empowerment between the leadership and learning factors and the eventual level of performance and sustainability (Anjum et al., 2025; Barua et al., 2024). It is based on this that the following mediation hypotheses are expected:

**H6:** Employee empowerment mediates the relationship between strategic leadership and human capital sustainability.

**H7:** Employee empowerment mediates the relationship between organizational learning culture and human capital sustainability.

The conceptual model according to the Resource-Based View theory speculates that strategic leadership and an organizational learning culture as organization capabilities increase the sustainability of the human capital via the mediating factor, employee empowerment. The framework reflects the suggestion that the human capital sustainability is not an individual practice; it will be a holistic process of combining leadership vision, learning processes, and a culture focused on empowerment; every practice will support the others to develop a sustainable and adaptive as well as high-performances workforce in the banking industry in Jordan.

## **4. Methodology**

The research design that was used in this study was quantitative, explanatory and cross-sectional research design to empirically investigate relationships between strategic leadership, the organizational learning culture, employee empowerment, and sustenance of the human capital in the Jordanian banking industry. The explanatory method was considered suitable in testing the causality relationships, as hypothesized in the conceptual framework as well as in testing hypothesized mediation effects statistically. The quantitative methods were favored because they are more appropriate in determining the theory-founded relations, consistency of measuring, and generalization of results to the

organizations (Creswell, 2021). The data were gathered through a questionnaire that was designed as structured and it was given to workforce and manager of various banks in Jordan covering departments like human resource, operations and strategy. Statistical diagnostics was conducted to measure common method bias, which comprised factors of full-collinearity variance inflation (VIFs), all of which were below conservative levels thus meaning that common method variance is not likely to significantly bias the findings.

The target population included managerial and professional employees who were working in the Jordanian commercial banks because they have direct exposure to the leadership practices, learning cultures, and empowerment initiatives. A purposive sample was used in which the respondents were chosen based on the requirement to have some pertinent knowledge and decision-making role. The number of questionnaires issued was 550 using e-mail and LinkedIn professional network. After the elimination of the partial and inconsistent responses, the valid questionnaires consisted of 467 and were analyzed which contributed to a response rate of about 85 per cent. This was larger than the minimum size suggested in a Partial Least Squares Structural Equation Modelling (PLS -SEM) analysis (Hair Jr et al., 2021), a factor that guaranteed sufficient statistical power to test complicated relationships between latent variables. The respondents also expressed a wide spectrum of local and international Jordanian banks, and had varied managerial experiences, hence, high generalizability and external validity of the study results.

A self-administered questionnaire that was based on the already validated scales but modified to meet the requirements of the study was used as the research tool. The measuring scale was five points Likert scale 1 = Strongly Disagree to 5 = Strongly Agree. The Strategic Leadership construct was measured on 4 items derived out of (Abdeen et al., 2025; Rasheed et al., 2024) based on the capacity across the three levels of communicating vision, inspiring commitment, and leading strategic change. The organizational Learning Culture was measured with the help of 4 items that were based on (AlSaied & Alkhoraif, 2024; Nimran et al., 2024), as they captured the aspects of continuous learning, knowledge sharing, and support of innovations. (Barua et al., 2024; Hutomo et al., 2020) items were used to assess Employee Empowerment on the three levels consisting of autonomy, participative decision-making, and perceived influence. Lastly, it was the Human Capital Sustainability with four items based on the works of (Ahmad et al., 2022; Hutomo et al., 2020) that covered the aspects of long-term employee development, engagement, and retention. Internal consistency, clarity and readability were tested by use of a pilot study which accommodated 30 participants of two Jordanian banks. Feedback helped to ensure that all the items were easily understood, and in all the constructs the alpha of Cronbach coefficients were above 0.80, which means that there was a high level of reliability.

The data collection was done in three months (January-March 2025) using online questionnaires to guarantee ease and efficiency. All the participants were also sent an invitation letter, which provided details about the purpose of the research, assured confidentiality, emphasis on voluntary participation. Various procedural measures were used to reduce the common method bias that included assurance of anonymity and randomization of order of construct and neutral wording of questionnaire items (Podsakoff et al., 2012). The respondents were told that there were no bad and good answers, and the information will be employed in only academic way.

SmartPLS 4.0 software was used to analyses the collected data by taking the Partial Least Squares Structural Equation Modelling (PLS-SEM) technique (Hair Jr et al., 2021). PLS-SEM was selected due to its capabilities of dealing with complex models and at the same time using small to medium sample size to deal with the theory development and prediction. The analysis was carried out in two steps and included measuring the model and structural model. To assess all measures of reliability and validity of the constructs, the measurement model protected the results of its indicative loads, Cronbach, alpha or composite reliability, and average variance extracted (AVE). The Fornell Larcker criterion and Heterotrait Monotrait ratio (HTMT) was used to measure discriminant validity. In the second phase,

the structural model was tested in order to test the hypothesized relationships with path coefficients (b), t -test values and p -test values derived as a result of bootstrapping (5,000 resamples). There were also inspections on Variance Inflation Factor (VIF), which ensured that there was no multicollinearity among independent variables.

In order to be robust validity and reliability of different types were tested. The content validity was achieved by receiving an expert review by three senior scholars in the field of human resource management and organizational behavior. The convergent validity was ensured with AVE values of more than 0.50 of all constructs, whereas the discriminant validity was ensured based on HTMT ratios that were lower than 0.85. The composite reliability of all the variables was also high (0.90), which means the internal consistency. The overall result of these was that measurement model was also logical as well as statistically sound.

Ethical considerations were followed to the latter in the entire researching process. The research was considered and accepted by the Ethics Committee of Middle East University (Jordan) which held that the research was not too risky to the involved participants as it met the standard protocol of the institution when conducting survey-based research. The informed consent was given to all the respondents before their participation hence making sure that they were voluntarily involved and that they could discontinue at any time without reprimand. Confidentiality and anonymity were guaranteed to the participants and all the data were placed in a safe place and analyzed in the form of aggregate data in order to anonymize personal identity. The research was done in harmony with the Declaration of Helsinki and it conformed to the national ethics of conducting research.

In a nutshell, the approach involved a strong research design, measure validity instruments and a high level of data analysis methods in order to guarantee the validity and reliability of the research findings. The PLS-SEM combination provided the opportunity to test the hypotheses of the sampling of the proposed relationships between strategic leadership, organizational learning culture, employee empowerment, and human capital sustainability in the Jordanian banking sector. The combination of the methodology rigor, adherence to the ethical standards and statistical validity offers a good incentive in making credible conclusions and providing useful insights on the sustainability of human capital in new economy. Because the data were collected using one source with the use of a structured questionnaire, additional statistical diagnostics was performed to verify the possible bias caused by the common methods and the problem of model overfitting. The overall collinearity variance inflation factors (VIFs) have been measured as required by the accepted PLS-SEM rules; all VIFs have been below the conservative level of 3.3 that means that there are no alarming chances of the collinearity variances and multicollinearity to be a threat to the validity of the estimates. These observations show that the relationships instead of being artefacts of common sources of measurement are observed.

Table 1. Demographic Profile of Respondents

Demographic Variable	Category	Frequency (n = 467)	Percentage (%)
Gender	Male	274	58.7
	Female	193	41.3
Age Group	20–29 years	81	17.3
	30–39 years	184	39.4
	40–49 years	139	29.8
	50 years and above	63	13.5
Educational Level	Bachelor's Degree	278	59.5
	Master's Degree	149	31.9
	Doctorate or Higher	40	8.6

Job Position	Operational Level Employee	132	28.3
	Middle-Level Manager	198	42.4
	Senior Manager/Department Head	137	29.3
Years of Experience	Less than 5 years	67	14.3
	5–10 years	146	31.3
	11–15 years	169	36.2
	More than 15 years	85	18.2

The demographics of the respondents are summed up in table 1. There was an equal representation of females and males in the sample with 57.3 and 48.7 %. The largest proportion 39.4 % were aged 30-39 years, with 29.8 % aged 40-49 years, indicating that most of the respondents were already in their mid-career stage, with a good experience in their professions. In terms of education 59.5 percent had bachelors and 31.9 percent had master-orders which means they have a very well-educated workforce as it is common in the banking sector. The highest proportion 42.4 % of the middle-managers made sure that there were broad perspectives at the various levels of organizations. In addition, 36.2 % were those with experience of 11-15 years, and it has been established that majority of the respondents had extensive experience and were well-established in leadership, learning and empowerment practices in the Jordanian banks.

## 5. Data Analysis and Results

In order to evaluate the proposed hypothesis and hypotheses using SmartPLS 4.0, the data analysis was performed using this program. The two-stage analysis followed where the measurement model was assessed and the reliability and validity of the constructs tested and the structural model was assessed to determine the relationship between the strategic leadership and the organizational learning culture, employee empowerment, and human capital sustainability. The results provide the empirical evidence to the conceptual framework that was assumed in the study and highlight the mediating role of the employee empowerment on achieving the sustainable human capital results in the Jordanian banking sector.

### 5.1 Measurement Model Assessment

Evaluation of the measurement model provided a way of assessing the reliability and validity of the constructs used in the present study. As per the advice of (Hair Jr et al., 2021), the assessment included the investigation of the reliability of indicators, the reliability of internal consistency, and the convergent validity. All the item loadings are above the minimum threshold of 0.70, since all the items depict their constructs effectively, as demonstrated in Table 3.

The findings of internal consistency reliability revealed that the value of Cronbach 0.771 to 0.850 are above 0.70 cut-off acceptable value, which infers that the items used to measure it are highly consistent. Similarly, the values of composite reliability (0.779 to 0.889) are above and beyond the desired value of 0.70 that Fornell and Larcker (1981) advised hence affirming the soundness of the scales utilized.

In regard to convergent validity, all constructs had values of more than 0.50 as the values of the Average Variance Extracted (AVE) lie in the range of 0.572 to 0.612. As these findings show, the latent variables explaining the indicators explain more than half the variance in them and tend to show that there is sufficiency in convergent validity. As a result, the measurement model met the reliability and validity standards which showed that the strategic leadership, organizational learning culture, employee empowerment and sustainability of human capital constructs are statistically sound and can be further analyzed through structural-model.

Table 2. Construct Reliability and Validity

Construct	Item	Loading	Cronbach's Alpha	CR ( $\rho_a$ )	CR ( $\rho_c$ )	AVE
Strategic Leadership	SL1	0.745	0.834	0.842	0.882	0.601
	SL2	0.815				
	SL3	0.755				
	SL4	0.818				
	SL5	0.738				
Organizational Learning Culture	OLC1	0.816	0.771	0.779	0.853	0.593
	OLC2	0.724				
	OLC3	0.781				
	OLC4	0.756				
Employee Empowerment	EE1	0.813	0.789	0.795	0.863	0.612
	EE2	0.801				
	EE3	0.781				
	EE4	0.732				
Human Capital Sustainability	HCS1	0.700	0.850	0.859	0.889	0.572
	HCS2	0.739				
	HCS3	0.806				
	HCS4	0.747				
	HCS5	0.810				
	HCS6	0.728				

Table 2 is used to provide the reliability and validity of the study constructs. Both the loadings of factors were higher than the advised limit of 0.70 (Hair Jr et al., 2021), which proves the high reliability of indicators. The values of Cronbach alpha are between 0.771 and 0.850, which is above the 0.70 mark and a sign of internal consistency of all of the scales. In addition, the composite reliability ( $\rho_n$  and 0 depicting and construct types respectively) were significantly more than 0.79 which indicated good construct reliability. Figure 2 represents the measurement model to depict the relationship amongst the constructs of the study. Factor loadings were all above 0.70, and it proves the presence of good indicators.

There were positive implications on Employee Empowerment in strategic Leadership and Organizational Learning Culture ( $B=0.406$  and  $B=0.583$ ) and, consequently, it has a strong impact on Human Capital Sustainability ( $B=0.941$ ). It has a high level of reliability and validity that makes it the model that can be further analyzed.

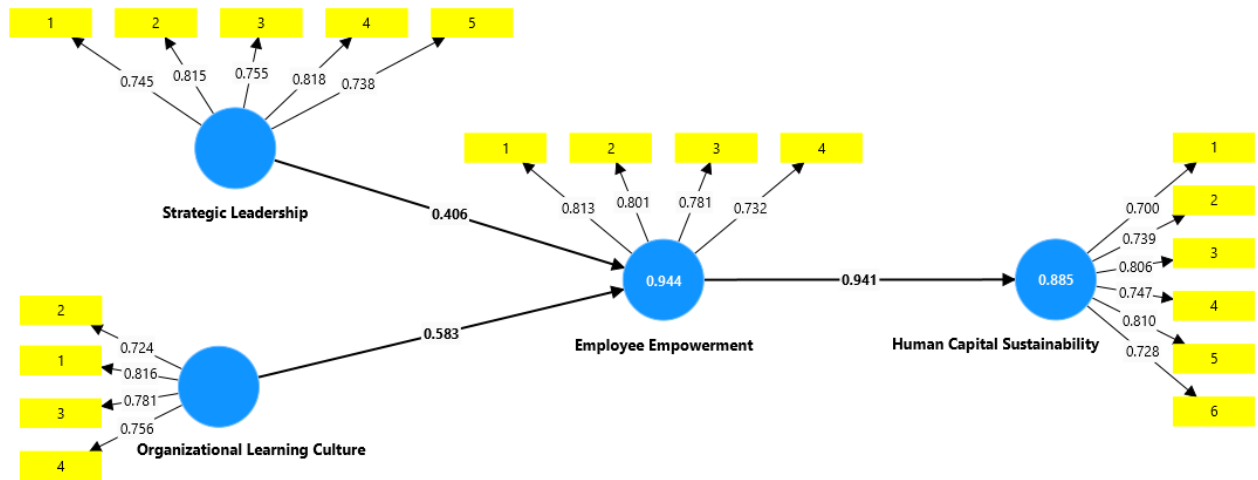


Fig.2: Measurement Model

Table 3 HTMT

	Employee Empowerment	Human Capital Sustainability	Organizational Learning Culture	Strategic Leadership
Employee Empowerment				
Human Capital Sustainability	0.521			
Organizational Learning Culture	0.523	0.434		
Strategic Leadership	0.441	0.469	0.455	

The findings of Table 3 indicate the HTMT results that were used to determine the discriminant validity among constructs. All the computed HTMT ratios are less than the conservative level of 0.85 (Henseler et al., 2015), and thus show that the discriminative validity is sufficient. As a result, all the constructs are empirically different, and there is no issue of multicollinearity. It is based on this that the Strategic Leadership construct, Organizational Learning Culture, Employee Empowerment, and Human Capital Sustainability have a distinct conceptual independence thus, accentuating the strength of the measurement model.

Table 4. Discriminant Validity (Fornell–Larcker Criterion)

	Employee Empowerment	Human Capital Sustainability	Organizational Learning Culture	Strategic Leadership
Employee Empowerment	0.882			
Human Capital Sustainability	0.641	0.756		
Organizational Learning Culture	0.660	0.623	0.770	
Strategic Leadership	0.547	0.589	0.528	0.775

Table 4 shows that the constructs have a discriminant validity as calculated in Fornell and Larcker. The AVE (diagonal values) of each construct is increased by the square root of the inter-construct correlation, which implies that the construct validity of the discriminating sample (square root) is met as it is suggested by (Fornell & Larcker, 1981). This would imply that each construct is more variant with its indicators as compared to that of other constructs. As a result, there is an empirical difference between constructs Strategic Leadership, Organizational Learning Culture, Employee Empowerment and Human Capital Sustainability, which has proved the data sufficiency of the measurement model.

Table 5. Coefficient of Determination ( $R^2$ )

	R-square	R-square adjusted
Employee Empowerment	0.944	0.943
Human Capital Sustainability	0.885	0.885

Table 5 shows that the model has a high explanatory power with high values of  $R^2$  of Employee Empowerment (0.944) and Human Capital Sustainability (0.885) concerning their respective set of predictors. Because these statistics indicate a significant level of predictability, (Hair Jr et al., 2021) confirm that the model captures the interrelations between leadership and learning culture, empowerment and human capital sustainability in the Jordanian banking industry rather well. The values of coefficient of determination ( $R^2$ ) suggest that there is high explanatory power of employee empowerment ( $R^2 = 0.944$ ) and sustainability of human capital ( $R^2 = 0.885$ ). Though these values are above normal standards of behavioral research, these magnitudes are expected with only tightly defined models that reflect cases of the closely related organizational capabilities in a single industry setup. However, such findings are viewed in a cautious manner since the high explanatory power can be due to some shared contextual and perceptual sources of measurements. In order to overcome this issue, other collinearity diagnostics were undertaken thus justifying the strength of the structural model.

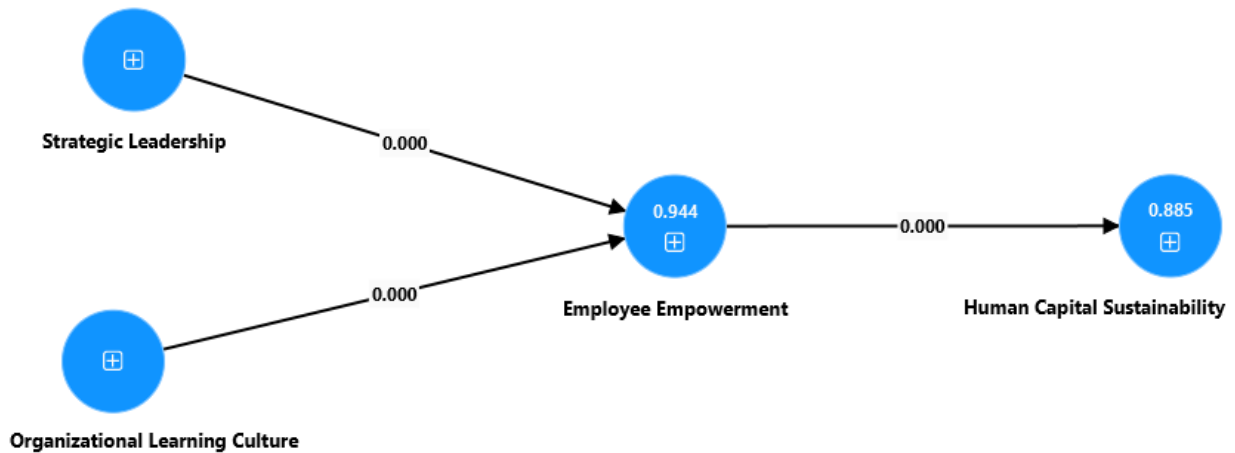


Fig.3: Structural Model

Figure 3 shows the structural model of illustrating the direct relationship of the study constructs. The model means that Strategic Leadership and Organizational Learning Culture have a positive impact on Employee Empowerment that, in its turn, strongly contributes to human capital sustainability. It can be verified that the proposed model is strong and predictive since the  $R^2$  values (0.944 in the case of Employee Empowerment and 0.885 in the case of Human Capital Sustainability) are high to indicate that the model is robust and has a predictive power.

## 5.2 Structural Model Assessment

The structural model was evaluated to examine the hypothesized relationships between the constructs. All the path coefficients as shown in Table 7 are positive and significant at the p-value of less than 0.001 and values of t-values are greater than the critical value of 1.96. The results endorse strong predictive quality associations between the variables of study.

Table 6. Structural Model Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values	Decision
Employee Empowerment -> Human Capital Sustainability	0.941	0.941	0.006	16.828	0.000	Supported
Organizational Learning Culture -> Employee Empowerment	0.583	0.583	0.041	14.193	0.000	Supported
Organizational Learning Culture -> Human Capital Sustainability	0.549	0.549	0.038	14.422	0.000	Supported
Strategic Leadership -> Employee Empowerment	0.406	0.406	0.041	9.861	0.000	Supported
Strategic Leadership -> Human Capital Sustainability	0.382	0.382	0.039	9.698	0.000	Supported

Table 6 indicates that Strategic Leadership and Organizational Learning Culture have a strong effect on Employee Empowerment ( $\beta = 0.406$  and  $\beta = 0.583$  respectively). Moreover, both of the constructs have a direct influence on the Human Capital Sustainability ( $0.382 = 69$  and  $0.549 = 69$ , respectively). Specifically, the impact of Employee Empowerment on Human Capital Sustainability is very large and statistically significant (Bloomberg et al., 2015) ( $\beta = 0.941$ ,  $t = 16.828$ ,  $p < 0.001$ ), which further supports the central mediating role of this concept.

All in all, these findings reveal that Employee Empowerment is one of the main tools where strategic leadership and learning culture promote sustainable human capital development in Jordanian banks. The results offer good empirical support to the developed theoretical model that has its basis in the Resource Based View (RBV), hence demonstrating that intangible organizational resources can make long term human-capital benefits.

### 5.3 Mediation Analysis

The wet analysis was reviewed on the indirect impact of Strategic Leadership and Organizational Learning Culture on Human Capital Sustainability as a result of Employee Empowerment. The results also revealed that leadership and learning culture have a statistically significant effect on empowerment ( $\beta = 0.406$ ,  $p < 0.001$ ,  $\beta = 0.583$ ,  $p < 0.001$ ) and, in their turn, causes a very strong impact on the sustainability of human capital ( $\beta = 0.941$ ,  $p < 0.001$ ).

These findings establish the fact that Employee Empowerment is a key mediating force which transforms strategic and learning based capabilities into long-term human capital performance. The observation contributes to the assumption of the Resource-Based View (RBV) that intangible assets, such as leadership vision, learning culture, and empowerment, will result in a long-term competitive advantage by increasing long-term growth and retention of the human capital within the banking industry.

## **5.4 Discussion of Findings**

The interpretation of the results based on service science interpretation shows that the sustainability of human capital is never only an organizational goal but a strategic factor of service systems. The values of strategic leadership and organizational learning on employee empowerment are highly pronounced, and it proves that empowered employees are better placed to continue reliable, adaptive, and innovative banking services. In a service-intensive environment, such as in banking, service disruptions are critical, as are customer experience and customer trust, sustainable human capital enhances the organizations' ability to absorb any service disruption, to go digital, and to co-create value with customers. Based on the findings, therefore, the importance of the empowerment-based human capital sustainability as a critical resilience agent to long-term service excellence and service resilience has been highlighted. The results of this research have strong empirical support of the proposed model based on the Resource-Based View (RBV) theory. The findings indicate that Strategic Leadership and Organizational Learning Culture are important intangible capabilities that largely define Employee Empowerment thereby facilitating Human Capital Sustainability in the Jordanian banking industry.

The positive path coefficients that are statistically significant demonstrate that more banks can empower employees by having leaders who have a clear strategic vision, participative decision-making process, and innovative headships. This kind of empowerment allows the personnel to put their skills into good use, ownership of their job and thus have a role to play on the sustainability of the organizations in the long term.

Moreover, the very high influence of Organizational Learning Culture on both empowerment and sustainability also indicates that it is essential to maintain constant knowledge sharing and feedback systems and flexibility to enhance strengths of labor force. This is in line with RBV claim that learning based competencies are a rare, valuable and inimitable source of competitive advantage. The mediation results can be assumed as capability activation process and not transmission effects. Employee empowerment also alters the leadership path and investments in learning, in that employees are prepared to practice the learning with service behavior, and long-term membership in the organization. Empowered human capital is critical in ensuring reliability, flexibility, and innovation in services in the service organizations like the banks where value creation occurs via the continuous interactions between employees and the customer. This is the mechanism that explains why leadership and learning culture influence the sustainability of human capital partially through the role of empowerment.

Lastly, the mediating Employee Empowerment has its strategic importance in the role of the transformational mechanism. The empowered employees will not only deliver better results but also demonstrate increased commitment and creativity hence transforming leadership and learning into long-lasting human-capital results.

Based on the setting of Jordan banking sector, which is currently passing through a fast digitalization process and experiencing highly competitive forces, these points indicate the need of empowerment-based leadership and learning culture to ensure performance sustainability and resilience. The extremely strong explanatory power of the model should be interpreted in the context of empirical and theoretical peculiarities of the research. The banking organizations are closely coupled service systems where leadership practices, culture of learning, empowerment and sustainability of human capital are interconnected in a deep-seated manner. This interdependence can be viewed to generate high explanatory values with or without necessarily implying the redundancy of constructs based on the Resource-Based View and service science. However, the results cannot be considered as deterministic relationships but a high degree of fit between the organizational capabilities as perceived by the employees in a common institutional and cultural context.

## **6. Conclusion and Implications**

This paper was to analyze the effects of Strategic Leadership and Organizational Learning Culture of Human Capital Sustainability mediated by Employee Empowerment in the Jordanian banking industry. The results confirm that leadership and learning are crucial strategic assets which with empowerment practices result to a sustained development of human capital. The research is based on the Resource-Based View (RBV), and stated that such intangible resources as visionary leadership, continuous learning, and empowerment are important drivers of long-term organizational capacity, and competitiveness.

Empowerment as a dynamic capability in terms of theoretical perspective makes this research the extension of RBV where leadership and learning culture is converted into ongoing human capital benefits. It incorporates empirical data in the case of the Arab banking environment, which is an area not well represented in HR and sustainability publications.

Practically, the findings provide useful information to the banking executives and policy makers. Leadership development program should be invested in to encourage empowerment, trust, and participative decision making in organizations. Additionally, a culture of learning will promote flexibility and innovativeness among the employees which are essential in ensuring sustainability of performance in the ever-changing financial landscape. This study has a number of practical implications on managers who work in service-based and digitally changing banking companies. To begin with the high degree of influence of strategic leadership on employee empowerment shows that leadership development should not stop at the traditional HR training but develop into a service-focused leadership paradigm. To align leadership responsibilities and the goals of the service system, bank executives must integrate the principles of empowerment into the service governance systems, frontline decision making rights and digital service protocols.

Second, the fact that organizational learning culture exerts significant impact on empowerment and human capital sustainability has confirmed the significance of digitally empowered learning structures. The managers need to invest in end-to-end learning systems, knowledge-sharing systems and analytics-based feedback loops that allow employees to constantly improve service-related competencies. These systems increase the flexibility of the services and reduce the operational vulnerability in the digitally mediated banking environments.

Third, the strong correlation existing between employee empowerment and sustainability of human capital means that empowerment must be viewed as an innovation driver of service and not as a universal HR practice. When workers have power, they can be in a greater position to detect service failures, personalize the interaction with customers, and work towards the gradual innovations in service. As a result, the service processes should be redesigned by managers to provide the employees with managed autonomy, which is backed with digital decision-support tools.

Lastly, the mediating role of empowerment (partially) suggests that leadership and learning investments can only have maximum returns when integrated into consistent service-system architectures. Banks ought to incorporate leadership, learning, and empowerment systems as one service strategy geared towards increasing service reliability, customer experience, and service-system resilience in the long-run. These implications bring out the fact that sustainable human capital does not represent a mere internal HR output but a competitive service performance driver.

## **7. Limitations and Future Research Directions**

Despite offering valuable information about the significance of strategic leadership, the culture of organizational learning, and employee empowerment in realizing any kind of human capital sustainability, it is important to note that a number of limitations to the study exist. The cross-sectional type of research used in the study restricts the causal relationship that could have been made. The studies of the future might follow longitudinal mixed method to observe active development of the empowerment aspect and sustainability processes over the years.

Second, despite these diagnostics, common method bias cannot be entirely ruled out due to the cross-sectional, self-reported nature of the data. the acquisition of the data was limited solely to the banking sector of Jordan, which may limit the external validity of the results to other areas or sectors. Future studies would have expanded the model to other industries like medical, education or manufacturing or hold a comparison exercise across nations to prove the cultural and institutional variations.

Lastly, the research also has used survey data, which is self-reported, and could be vulnerable to common-method bias. It is also advised that future studies should combine the multi-source data (e.g., managerial reports, performance metrics) and consider other factors that may mediate or moderate the hypothesis (e. g. organizational innovation, digital transformation, or leadership style) to increase the explanatory power of the model.

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