

Degree of the Requirements for Improving Human Capital Management in Arab Universities as a Gateway to Achieving Sustainable Development

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Abstract: The paper identifies the degree of requirements for improving human capital management in Arab universities as a gateway to achieve sustainable development from the perspective of faculty members according to gender, faculty, supervising authority, academic rank, and number of years of experience. The descriptive approach is used to achieve the research objectives. The research sample consists of (526) faculty members randomly selected. The questionnaire is used as a research instrument. The results indicate that the research sample's approval of the requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development is high with a mean value of (3.99), where the career development domain is the highest with a mean value of (4.02) and a high degree, while rewards and incentives domain is the lowest with a mean value of (3.96) and a high degree. The findings also show statistically significant differences in the requirements for improving human capital management due to gender, supervisory authority, and academic rank in favor of the category of female, public university, associate professor, and professor, respectively. Furthermore, the findings demonstrate no statistically significant differences due to the variables of faculty and number of years of experience. Given the results, the research recommends developing a strategy and an advanced plan for the career and professional development of faculty members and attracting distinguished and talented scholars, academics, and researchers to achieve its vision as a distinguished, innovative, and internationally competitive organization.

Keywords: Arab universities, human capital, requirements, sustainable development.

1. Introduction

Sustainable development is considered a global endeavor to establish the rights of future generations, as countries and their institutions and entities seriously seek to contribute to achieving it. One of the most prominent structures and institutions that have undertaken this contribution to embodying sustainable development on the ground is the university using its energies and capabilities. University, therefore, enjoys a great reputation among researchers and theorists of sustainable development, as the structures of sustainable development are integrated by several parties, including the university (Al-Barawy, 2021; Lakhdar & Nassima, 2019; Mujahid, 2020).

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Universities can effectively contribute to working towards sustainable development, as they are stable institutions accustomed to planning for long-term visions and have university training and research as the main aspects of their vital and pivotal operations. Therefore, they are ideal spaces for launching sustainable practices and developing projects on a large scale (Al-Kurd, 2018). It also plays an essential pioneering role in determining the paths and directions through which future generations will learn how to address the complexity of sustainable development. Therefore, many initiatives have emerged at the regional and international levels emphasizing the importance of the university's role in achieving and promoting sustainable development (Al-Barawy, 2021).

Within the Strategic Plan for Sustainable Development, it is expected that by 2030, equal university education can be provided to all individuals, as education emphasizes the need to acquire the skills and knowledge necessary to promote development and a culture of sustainability (Lane, 2017). On the other hand, investment in human capital is the core and mechanism of the sustainable development process in its three economic, social, and environmental dimensions (Al-Husseini, 2023; Al-Sayed, 2020; Hassan, 2021; Panzabekova et al., 2019; Yaqoub, 2016). With the prominent role of the university in developing human capital, higher education, especially universities, has become a necessity to invest in human capital to establish an advanced society based on sustainable economic, social, and environmental development (Ali, 2017).

Universities in general, and Arab universities in particular, have recently witnessed many challenges at a rapid pace that affect all their policies, strategies, and programs due to the technological revolution, intense local, regional, and global competitiveness, the shift to a knowledge economy, and the changing nature and skills of work. Therefore, achieving these and other changes requires transforming the performance standards of these universities from local standards to global standards, shifting from traditional performance to competitive-based performance, and considering maximizing the quality of performance as a top priority and global integration in the contexts of competition and quality, and comprehensive investment of all its human capital through its distinguished management. This is supported by Papi et al. (2017) asserting that university management of all its human capital is one of the priorities of distinguished universities and its most important components.

For universities to ensure rapid response to these changes and confront them efficiently, they must have the ability and appropriate methodologies to manage functional capital, human capital, and social and psychological capital to work efficiently in an unstable environment characterized by rapid change, uncertainty, and risk. The smart career theory, which is against borderless careers, suggests that three types of core competencies of smart organizations must be managed efficiently (Beigi et al., 2018). They include, "Knowing-how" reflects human capital, "Knowing-whom" reflects individuals' social capital, and "Knowing-why" reflects individuals' positive psychological capital to manage an uncertain career development environment (Beigi et al., 2018; Parker et al., 2009; Xu et al., 2022).

Besides, the human capital possessed by employees is a resource that can contribute to the competitive process and high productivity as long as the management and leadership in the organization are aware of how to manage and benefit from them by placing them in positive internal contexts of the organization (Josan, 2013). It is, therefore, viewed as a measure of the knowledge, skills, experience, and capabilities available to individuals or groups to produce goods, services, or ideas in market conditions to achieve organizational or social goals (Boon, 2018; Uysa, 2014). Hence, the concept of human capital is concerned with the added value that individuals provide to organizations, as it is a revolutionary way to manage individuals and deal with them as assets and not as costs (Salau et al., 2016). The role of individuals in production processes is not only limited to performing mechanical and routine work that can be easily automated in the digital economy but also includes performing important organizational and intellectual professional tasks necessary to transform other factors of production into final products (Popkova, 2021).

The modern world is characterized by a steady trend towards a fundamental change in the importance and role of the human element in society and the economy because it is considered the most important factor in economic and social growth. It is also the main determinant of the future of countries as the leading countries move towards building a new economy based on knowledge, innovation, the latest technologies, global information systems, and business (Wasiluk, 2017). It is considered the main driving force for the social and economic development of modern society, and thus the basis of the new economy. Hence, there is a dire need to transform the role of human capital from a cost factor to a major productive and social factor for development, thus occupying a leading position in national wealth within the framework of the new development of countries and the global community (Janshanlo, 2019).

Universities around the world are among the most important areas of education, scientific research, and social and economic development on the one hand. On the other hand, the academic environment is in a constant state of change, as competition becomes the name of the game. Since survival is a panacea, the university must explore all ways to achieve a competitive advantage, and the way to do this is to develop human capital as a competitive weapon. Therefore, human capital management has recently received extensive attention from decision-makers in universities and adopted as a basic strategy to enhance performance and achieve outstanding performance (Al-Jarrah, 2019).

Human capital management views employees as valuable resources that must be invested to reach their full potential. So, organizations, for their individuals to succeed in achieving their goals, must provide them with tools to expand and develop their basic competencies and capabilities required for accomplishment through successful management of human capital (Siddiqui, 2012). Universities cannot be successful without qualified faculty members and effective human capital management practices that leverage their talents (Bucăța & Tileaga, 2023).

Investing in human capital in universities represents the optimal investment of human creative energies and promising human skills in all specializations and fields, and is the key to excellence and global competitiveness for universities and countries in general. Investing in human potential enables one to judge the positions of countries on the global map in the field of competition and excellence, as human capital is one of the indicators for measuring progress and competition among nations (Jomaa, 2019). The effectiveness of investments in human capital in universities has been proven through effective management, as this management is a combination of investments in an individual's education and professional skills that increase his ability to work (Alexandrovich, 2019).

Universities are global knowledge institutions that play a crucial role in knowledge management through scientific research, education, and academic services (Fullwood et al., 2013) on one hand. On the other hand, human capital gains special importance because it is one of the main factors contributing to expanding knowledge management capabilities (Vorontsova et al., 2020), and the productive power of the knowledge economy is considered an entry point to achieving institutional excellence (Jomaa, 2019) and outstanding performance (Al-Jarrah, 2019), a mechanism for attaining sustainable human development (Ali, 2017), and an introduction to reaching strategic leadership (Abu Tajjar & Khater, 2020).

For that reason, universities need to develop human capital management to determine the direction of changes in aspects of technology, structure, culture, business processes, and performance (Withers et al., 2010). The development of human capital management in universities is essential to attract and retain skilled employees to enhance innovation, provide educational opportunities, conduct research serve society, and achieve their academic excellence, reputation, and competitiveness (Bucăța & Tileaga, 2023). Human capital management represents a comprehensive and planned strategic approach to managing the university's most valuable workforce by focusing on administrative and strategic activities that contribute to raising the level of human assets and taking out the best from them to be more valuable resources to play an effective role in increasing the university's productivity (Kucharčíková et al., 2015).

Human capital management is an important element in the organization's management process and an approach to managing people that treats them as a strategic issue that contributes to competitive advantage and seeks to systematically measure how people's policies and practices create value (Toszevska-Czerniej & Prawo, 2018).

Of late, interest in managing human capital in universities has increased as a result of human capital being viewed as a business asset, and its increasing importance to the future of universities as it is their most valuable resource. It extends to include the knowledge, skills, attitudes, talents, motivations, attributes, and competencies that belong to an institution or society and participate in developing that institution or society to achieve its goals (Salau et al., 2016). Therefore, it is one of the vital factors that contribute to the success of any institution, and the subsequent radical changes and creation of an educational environment (Kiran et al., 2022). It inspires best practices and aims to improve production, manage employment aspects, and provide favorable working conditions. In other words, when these practices are effective, workers strive to achieve continuous success and progress (Bucăța & Tileagă, 2023).

Human capital is used to develop talented persons and inspire workers to achieve their full potential (Kiran et al., 2022), thus maximizing the value of an organization's human resources to provide the best results (McCartney & Fu, 2021). It is not only about developing human capital but using it to the maximum extent in the corporation (Kianto et al., 2017). The requirements for successful human capital management in organizations, including universities, vary in research and studies, covering many fields and dimensions. Al-Mashaqba (2021) sees it in a set of strategies that includes the dimensions of planning, training, support and development, teamwork, and work teams. Al-Shahrani (2019) identifies the dimensions of human capital investment in training, motivation, and communication.

Santhanam et al. (2017) see human capital in recruitment, training, performance appraisal, rewards, and decision-making assistance. It also includes performance appraisal, job acquisition, training, rewards, and recruitment (Jiang et al., 2012). It also comprises recruitment and selection, training and development, performance measurement, rewards, and career development (Witasari & Gustomo, 2020). Besides, it consists of attraction, recruitment, training, and development, creating a positive work environment, competitive rewards, professional development opportunities, and reducing administrative burdens (Bucăța & Tileaga, 2023).

On the other hand, Andersen et al. (2022) limit it to planning, recruitment, selection, placement, development, training, maintaining employee satisfaction, participation, and collaborative activities to manage individual and organizational competencies. Human capital management also provides a comprehensive strategic approach to dealing with many

matters, including attraction, recruitment, training, employee development, rewards, incentives, and performance reviews, by identifying each person's capabilities and linking him to a specific role through which he can achieve all his full potential (Kiran et al., 2022). The current study focuses on studying the requirements for improving human capital management in Arab universities as an input to sustainable development through the following four dimensions: selection and recruitment, career development, Performance Appraisal, and rewards and incentives. Given the introduction of human capital as an effective instrument in managing organizations, the literature review related to the issues earlier raised is provided in the following part.

2. Literature Review

Research has documented that human capital development is an effective tool for the productivity of employees in general. Pepple (2019) examines human capital development as an effective instrument for faculty productivity in universities in Rivers State. The descriptive survey method is used to achieve the research objectives. The questionnaire is applied to a sample of (2014) respondents. The findings indicate that guidance helps trainees become familiar with their academic responsibilities, recognize specific standards required in some areas of their work, and reduce errors, as investing in research helps in improving knowledge and creating new knowledge. The results also show that participating in in-service training helps empower faculty members to be more professional and human capital development enhances the level and productivity of faculty members in both federal and state universities in River State. The research recommends encouraging universities to invest in research programs and encouraging mentorship programs by providing allowances for professors and other senior lecturers.

Also, Omojola (2019) investigates the association of the human capital selection process as related to faculty productivity in Nigerian universities. The descriptive survey method is used to achieve the research objectives. The two questionnaires are applied to a sample of (1,800) respondents from deans, department heads, and faculty members, including 20 deans, 70 department heads, and 1710 faculty members. The findings reveal that the human capital selection process is significantly related to faculty productivity. The research recommends paying attention to the quality of faculty members who are appointed in the university system so that they can be more productive, making their best efforts to select the best candidate during recruitment, and having guidance for the staff so that they adapt easily to the system, encouraging the selected candidates and guiding them well during the probationary period so that they are productive, evaluating the ability of the faculty members regularly and giving them feedback after the evaluation.

Moreover, Al-Jarrah (2019) aimed to study investment in human capital as an input to achieving outstanding performance through a survey of the opinions of a sample of teaching staff in several faculties at the University of Mosul. The descriptive method is used to achieve the research objectives. The questionnaire used as a research instrument is applied to a sample of (30) faculty members. The findings indicate a weakness in the training programs and the development of the mental capabilities of the individuals studied. It is also found that it is necessary to look at the working individuals as the real important element influencing the success of the organizations. The research recommends paying great attention to training for its important and effective role in developing individuals' mental and intellectual abilities to serve the domain under study.

Besides, Salem et al. (2019) reveals the reality of human capital development in faculties of education in light of the culture of creativity. The research uses descriptive research methodology. A questionnaire is adopted and applied to a sample of 206 faculty members in the faculties of education at the universities of Ain Shams, Mansoura, Suez, and Sohag. The findings show a weakness in the faculties of education's interest in the human competencies they rely on in building their strategies and the basis for their competitive advantage, their keenness to retain the best individuals, and the integration of the human resources planning policy and the faculty's general strategy. The results indicate inadequacy in providing a supportive climate for the development of communication between employees, adopting the implementation of a centralization policy, and providing training for employees on administrative creativity to achieve leadership in the field of services provided by faculties of education.

Similarly, Al-Shammari (2019) identifies the role of strategic planning in developing human capital in private colleges in Iraq from the point of view of employees. The research uses descriptive research methodology. The research sample consists of (173) individuals. The findings indicate that there is a role for strategic planning, with its dimensions of vision, mission, strategic objectives, and strategic analysis, in developing human capital. The study recommends that Iraqi private faculties continue to find common values that govern their work and activities in a specific and clear manner and adopt the values and principles that govern their behavior.

Correspondingly, Al-Shahrani (2019) identifies the reality of investing in human capital at King Saud University to achieve a competitive advantage through the areas of training, communication, and motivation from the point of view of female faculty members. The research uses descriptive research methodology. The questionnaire is applied to a sample

of (83) female faculty members. The results show that the reality of investing in human capital at King Saud University to achieve competitive advantage in the areas of training, communication, and motivation in general is of a medium degree of approval, respectively. The research recommends providing a sufficient financial budget to support the university administration and carry out all its tasks to achieve a competitive advantage, allocating part of the budget to motivate workers with initiatives and creative ideas, activating modern technology, unifying procedures, models and work mechanisms, and reducing routine work to achieve competitive advantage.

Equally, Ibrahim and Abdo (2020) develop a proposed vision for developing human capital management for faculty members at Al-Azhar University to achieve competitiveness from the faculty members' point of view. The research uses descriptive research methodology. The two questionnaires are used to measure human capital management and competitiveness and are applied to (113) faculty members at the faculties of Al-Azhar University in Tafahana Al-Ashraf. The results find a correlation between human capital management and university competitiveness. The research develops a proposed vision for increasing human capital management for faculty members at Al-Azhar University to achieve competitiveness.

Furthermore, Al-Khawaldeh (2020) identifies and reveals the impact of entrepreneurship strategies on empowering human capital in Jordanian private universities. The research uses descriptive research methodology. The questionnaire is applied to a sample of (257) administrators. It is found that there is a statistically significant effect for all entrepreneurship strategies: creativity, risk-taking, and uniqueness on empowering human capital, enabling skills, enabling capabilities, and enabling rationality. The research recommends the importance of universities moving towards improving the capabilities of employees, developing their knowledge and skills on tangible elements and resources, and exploiting them to improve performance and achieve goals.

Additionally, Al-Subaie and Al-Muzaini (2020) reveal the role of academic leaders at Imam Muhammad bin Saud Islamic University in developing human capital in the dimensions of training and motivation in light of the Kingdom's Vision 2030. The research uses descriptive research methodology. The questionnaire is applied to a random sample of (328) faculty members. The results show that the role of academic leaders in developing human capital, in the dimensions of training and motivation is of a medium degree. The research recommends paying attention to the opinions and suggestions of faculty members in the field of their professional development, taking them into account, building databases and information that help leaders support the professional development process for faculty members, and benefiting from the expertise of the university's creative faculty members in localizing training.

Also, Shalghoum and Medfouni (2020) highlight the approach based on improving the quality of higher education and linking Algerian universities to the economic and industrial environments. The research uses descriptive research methodology. The questionnaire is applied to a sample of (465) professors. The results conclude that there is a role for educational investment in human capital in improving the quality of higher education through the quality of educational programs and curricula, administrative leadership with a strategic vision that reflects the quality of university performance, the quality of the library and educational information sources, and the reputation and scientific productivity of faculty members.

Besides, Lentjushenkova (2021) identifies factors influencing human capital development in higher education institutions in Latvia. The research uses descriptive research methodology. A questionnaire is used to identify these most influential factors and CATPCA is also applied to analyze the research results. The results show that the basic elements of human capital are the educational and scientific competence of faculty members and the number of professionals from the industry. CATPCA results also reveal four influencing factors: employee competence and motivation, legislation and development strategy, cooperation, and availability of resources.

Moreover, Al-Adwan (2021) identifies the impact of human capital with its dimensions of experience, knowledge, and skill in organizational learning with its dimensions of knowledge generation, participation in decision-making, training, empowerment, and work teams in Jordanian universities. The research uses descriptive research methodology. A questionnaire is adopted and applied to a sample of (142) university presidents, vice presidents, college deans, and department directors working at Jordanian universities in the city of Amman. The results show that the levels of both human capital and organizational learning are highly rated in Jordanian universities. The results also indicate a statistically significant effect at the significance level ($\alpha \leq 0.05$) for human capital and its dimensions on organizational learning in Jordanian universities. The study recommends that Jordanian universities maintain their human capital as a strategic asset by providing them with appropriate compensation and following a clear policy in recruiting and attracting distinguished individuals in their specializations.

In the same context, Hamama and Bin Awan (2021) highlight the role of the learning organization in developing human capital through its dimensions related to the individual and collective levels, represented by continuous learning, dialogue and inquiry, team learning, and empowerment to develop competencies through training. An exploratory study is conducted for a sample of professors at the University of Ammarthlighi in Laghouat based on the questionnaire

survey method. It is concluded that there is a statistically significant effect of the dimensions of the learning organization on human capital development.

Mohammad et al. (2021) aims to achieve the strategic goal of Vision 2030 to increase employment rates at Najran University by working on the sub-goal: of human capital development and all its detailed goals. The research uses descriptive research methodology. The questionnaire is applied to a sample of faculty members. The findings show that the availability of education and learning is high, the availability of training at the university is medium, and the availability of interest in experiences at the university is also medium. The results recommend making the most of the professional expertise of the university's faculty members to build a distinguished young human cadre in the future and provide a greater amount of training to faculty members within the university.

Similarly, Ibrahim (2022) identifies the role provided by King Khalid University as an official academic body in developing and qualifying human capital and the role expected of the university to develop society at its various levels in qualifying this human resource. The research uses descriptive research methodology. The questionnaire is used and applied to a random sample of (81) faculty members and male and female students. The results show that the majority of opinions indicate that the university meets the needs of institutions and their needs in the labor market. The findings also indicate that the university cares about student research, as following up with graduates requires developing strategic plans. The research recommends increasing the scientific research budget and communicating with international universities and research centers to provide research grants.

Additionally, Mani (2022) identifies the impact of human capital management on employee performance at the University of Abuja. The research uses descriptive research methodology. The questionnaire is applied to a sample of (327) faculty members, senior management employees, and juniors at the university. It was found that human capital management has a positive and significant impact on employee performance at the University of Abuja. It is also concluded that salaries, wages, training and development, rewards, bonuses, and employee promotion have a positive and significant impact on employee performance. The research recommends increasing salaries and wages to achieve a stable form of sustainability within a strict economy, ensuring that employee rewards and allowances are competitive when compared to institutions within the private sector, giving priority to training and development programs at the university to ensure job security and professional competitiveness, and building a degree of trust, clarity, and transparency in promotion of the employees.

Moreover, Kasule (2022) investigates the relationship between satisfaction with human resource management plans and the job performance of faculty members in public universities in Uganda. The research uses descriptive research methodology. The research uses descriptive research methodology. The questionnaire is applied to a sample of 198 full-time faculty members at Kyambogo University. The descriptive results show that teaching performance is of a high level, while research, publishing, and community service performance are of a medium level. The results also indicate that satisfaction with recruitment, development, engagement, and employee retention is at a medium level, while satisfaction with human resources employment is at a high level. The research recommends that university administrators should ensure that the applied human resources recruitment and placement practices satisfy faculty members and ensure the design and implementation of human resource development, engagement, and employee retention.

Besides, Al-Shammari (2022) identifies the reality of human capital in its various forms: intellectual capital, social capital, and psychological capital, institutional performance in its two dimensions: efficiency and effectiveness at the University of Hail from the perspective of university employees, and the obstacles to investing in human capital in its various forms to improve institutional performance. The research uses descriptive research methodology. The research sample includes 1307 individuals from various colleges. The results show that the reality of both human capital and institutional performance from the perspective of university employees is of a medium level. The findings also indicate the various obstacles that prevent investing in human capital in its various forms in improving institutional performance at the University of Hail. The research also presents a vision for achieving investment in human capital reflected in the development of institutional performance.

Also, Dewi et al. (2022) determine the level of maturity and the role of human capital engagement in a higher education institution. The quantitative and qualitative approaches "mixed methods" are used to achieve the research objectives. The number of focus groups responding to the questionnaire was (58) lecturers and academics after a comprehensive brief explanation of the principles of human capital management using the Bassi and McMurrer frameworks as well as the Ulrich frameworks. The results reveal a low level of maturity of human capital management in the institution, and the sample's awareness of the role of human capital management is of a weak level as well. The findings show the importance of methodological steps in developing human capital management in higher education institutions.

In the same context, Abubakar et al. (2012) uncovered the relationship between human capital development and employee retention in some higher education institutions in Nigeria. Human capital is measured through training and

development, career planning, employee retention through employee motivation, workplace flexibility, and work-life balance. The results of the two regression models show that career planning is an important positive indicator of the three factors of employee retention, as the least one is employee motivation. The results also indicate that the correlation coefficient between career planning and work-life balance is the highest.

By the same token, Ntirandekura et al. (2022) reveal the relationship between human capital and the performance of lecturers in private universities in the Kampala region, central Uganda. The descriptive cross-sectional survey design with qualitative and quantitative research is used to achieve the research objectives. An interview and questionnaire are used and applied to a sample of (300) respondents. The results reveal a correlation between the performance of lecturers and employee training, work experience, and academic level. The research recommends providing lecturers with sufficient knowledge in the field of work that can be acquired through training preceded by identifying training needs, increasing staff development seminars at the university, and taking into account job-related knowledge and experience when assigning tasks, as they should be encouraged to continue education to increase their knowledge and obtain the higher qualifications required to teach at the university level.

Newly, Bucăța and Tileagă (2023) also examine the role of human capital in the efficiency of university management. A documentary analysis is used to explain that the university's retention of its academic staff is necessary to maintain its superiority, reputation, and competitiveness. Using the documentary analysis, it is concluded that human capital management is a strategic matter necessary to attract and retain qualified employees by creating a positive work environment, professional development opportunities, competitive rewards, reducing administrative burdens, and successfully recruiting senior employees and retaining human resources departments and universities as a whole so that the university becomes more creative and effective. With this review in mind, there is a dire need to conduct studies to identify the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development.

3. Research Problem

Capital is one of the current themes and areas raised by researchers for discussion in the field of sociology. Capital expresses a complex phenomenon between what is individual and what is collective or institutional. The university is a field or space in which the various sociocultural stripes of individuals meet to produce a model of actions and positions that determine their social relationships as an elite of the overall society within the pedagogical teams, training teams, and scientific research teams, the spirit of teamwork (Omar & Malika, 2018). Human capital in any organization is formed by elite workers who possess a set of abilities, knowledge, and skills that enable them to produce new ideas that contribute to excellence and continuous improvement of work performance, which makes attention to its development and management an essential element for the success of organizations (Ahmed, 2019).

Human capital is one of the most basic resources for various institutions, as it is what adds newness and creativity that distinguishes the institution from its counterparts (Temizkan, 2019). Human capital is the main engine for developing their internal capabilities at the individual and collective levels, so the failure of educational institutions to invest in their human capital leads to the weakness and decline in the institutional performance of their employees (Hajdari, 2019). UNESCO reports confirmed the existence of an important positive relationship between investment in human capital and economic, social, and environmental growth in various countries of the world, as the World Bank confirmed that education is one of the most important factors for achieving sustainable development for all countries of the world (Abdelnabi, 2022).

Al-Shahrani (2019) believes that human capital management has become an inevitable necessity in light of fierce competition, as the product, service, or knowledge provided by any party has become stagnant unless it reaches its highest level of distinction and uniqueness. Human capital generates value for organizations and constitutes a source of competitive advantage through investments in increasing employees' knowledge of skills, abilities, and knowledge (Munjuri & Ohonya, 2015). It also contributes to developing a strong corporate culture, enhancing employee development, providing feedback and dedication to achieving organizational goals, employees enjoying more professional autonomy, and increasing their ability to apply their skills, abilities, and knowledge in the long term (Lawler & Boudreau, 2012).

Universities can only be as successful as their people, as without qualified faculty and effective recruitment practices; they cannot utilize all their talented persons. Therefore, human capital management is essential to attracting and retaining skilled faculty members, as they are crucial to promoting innovation, conducting research, providing educational opportunities, and contributing to achieving the overall mission of the institution by developing a strategic workforce management plan, aligning the university's goals with the needs and desires of employees to create a win-win situation for both parties (Bucăța & Tileagă, 2023). Investing in human capital in universities through successful management is extremely important.

Human capital contributes a prominent role in improving the experience, efficiency, discipline, work culture, motivation, health, and knowledge which in turn can create university resources that are healthy, skilled, productive, and competitive, along with its impacts on the basic aspects in the form of motivation, work culture, discipline, and other organizational competencies (Fadli et al., 2022). Human capital is positively related to university competitiveness (Ibrahim & Abdo, 2020), and contributes to the organizational success of universities (Salau et al., 2016). Human capital development also positively affects administrative development (Ahmed, 2019), talent management (Abdulmajeed, 2020a), and innovation performance (Deeb & Merhej, 2016).

In the same vein, human capital development has a positive significant relationship with university crisis management (Nashwan et al., 2023), improving job performance (Abdulmajeed, 2020), and institutional performance of university employees (Al-Shammari, 2022). Therefore, the comprehensive reform of the university's human resources management situation is the trend of the times, considering that the university is the main base for national knowledge innovation, a symbol of the development of talent-generating innovation spirit, and the main source of high-level creative talented ones.

Consequently, building a scientific and standard system that includes strategies and mechanisms for the comprehensive management of human resources by improving the management of all their capital to maximize their effectiveness and investment has become one of the most important challenges of university administration (Lang & Lv, 2016). The rapid cognitive and technological changes that the world is currently experiencing have increased the importance of human capital management as a basis for achieving excellence in various institutions, especially educational institutions, including universities, given that they represent the top of the educational pyramid. The real wealth of universities is represented by their human capital, including leaders, faculty members, their assistants, administrators, and students (Al-Shammari, 2020).

The university is one of the most important means available to the state in promoting the development movement and developing its human resources to keep pace with the ongoing changes socially, economically, politically, and technologically through its three functions: education, scientific research, and community service (Al-Daghiri, 2021). Universities are the main incubators for acquiring and developing human resources (Al-Shammari, 2022). The real wealth of university institutions is mainly represented in their human capital, as institutions are measured by the size of their human resources capable of performing the work entrusted to them with precision and efficiency (Arnaout, 2017). For that reason, Nashwan et al. (2023) believe that the university and its leadership must enhance interest in managing and developing human capital, redouble work on constantly developing the capabilities of the human element, and provide all the resources necessary to manage it successfully.

Having a clear policy, philosophy, and strategy for managing human capital in universities has become a necessity for policymakers and administrators to obtain a more productive workforce and maintain competitive advantage (Salau et al., 2016). Addressing human capital management within universities is a type of anticipating the future in light of the unstable work environment due to internal and external variables. This anticipation invests promising energies and provides the labor market with qualified graduates capable of seizing ready-made opportunities, creating new opportunities for themselves and creative and innovative fields of work and production projects that contribute to making society ready for rapid change towards new requirements and businesses' unrealized by traditional economic planners (Jomaa, 2019). Accordingly, a study by the World Bank (2018) confirms that optimal investment of human energies in education, especially higher education, has become an inevitable necessity.

Given the new world order and the political and economic transformations at the global, regional, and local levels and their impact on the level of the Arab countries, it is necessary to invest in the thinking human element as it is the most important strategic element for achieving sustainable development. The countries of the developed world and industrialized countries spend huge sums of money from their total public budget on research and development to develop human capital. However, Arab countries still suffer from deficiencies in labor policies in taking advantage of human resources, a weak correlation of education outcomes with the needs of changing labor markets, a decline in spending on education, and a deficiency in modernizing and developing Arab education programs in light of globalization.

Now, it is necessary to benefit from global expertise in the field of investing in human capital through education, especially higher education (Hassan, 2019). Universities across Arab countries demonstrate a keen interest in engaging in the complex sustainable development agenda. This requires the introduction of new educational programs to teach tomorrow's leaders the multidisciplinary challenges of sustainable development, strengthening research programs in universities on sustainable development, establishing new institutions at the university level to coordinate activities of sustainable development goals between various university departments, and engaging the university in communication and leadership programs by bringing together all key stakeholders to collaborate to achieve sustainable development goals. All of this necessarily requires universities to pay attention to improving human capital management at all levels

Accordingly, Ali's study (2021) recommends the need to pay attention to investing in Arab human capital as an entry point to achieving economic and sustainable growth in general for Arab countries in the third millennium. Many pieces of research and studies (see, for example, Jumaa, 2019; Ahmed, 2019; Nashwan et al., 2023; Al-Shahrani, 2019; Abdulmajeed, 2020; Arnaout, 2017, Al-Shammari, 2022) also indicated the necessity of conducting studies on the requirements for improving the management, investment, or development of human capital in Arab universities, addressing universities in different Arab environments and linking them to different variables. With this in mind, the research problem crystallizes by answering the following main questions:

- What is the degree of requirement for improving human capital management in Arab universities as a gateway to sustainable development from the perspective of faculty members?
- Are there statistically significant differences at the significance level ($\alpha \leq 0.05$) between the means of faculty member's response to the degree of requirements for improving human capital management in Arab universities as a gateway to sustainable development due to the variables of gender, faculty, supervising authority, academic rank, and number of years of experience?

4. Research Significance

The research significance is reflected in the significance of human capital management because of its positive results on the performance of universities in achieving competitive ability and advantage to face current and future challenges and problems. This research is distinguished by presenting theoretical literature that enriches the Jordanian and Arab libraries in general. It is also hoped that it may help officials at the Ministry of Higher Education and universities and those in charge of the career and professional development process for faculty members to identify the requirements for improving human capital management in universities to contribute to providing them in a way that increases the competitive capabilities of Arab universities in education, scientific research, and community service.

Hopefully, this study will benefit leaders of Jordanian and Arab universities in making decisions that allow the development of human capital management practices in universities. This study may also be a starting point for other studies in which other variables are added. This research may also use the study instrument to develop plans and strategies necessary to develop human capital management practices in universities and evaluate relevant university practices in light of them.

5. Research Terms and Definitions

In this paper, the terms "Human Capital and Human Capital Management" are mentioned, and their procedural definitions are as follows:

Human Capital: It is an economic concept, which refers to the knowledge, skills, experience, and abilities formed by investment in education and training (Goldin, 2016). The set of factors possessed by individuals and the collective workforce of the organization, which includes knowledge, skills, technical ability, and personal qualities such as intelligence, energy, a firm attitude, moral commitment, and the ability to learn, in addition to imagination, competence, creativity, and the desire to exchange information, participate with the team, and focus on the organization's goals (Juma, 2019).

It is "the set of knowledge, abilities, skills, and experiences possessed by university faculty members" (Nashwan et al., 2023, p. 158). It comprises explicit and implicit human capital. Implicit capital refers to employees' knowledge, experience, creativity, and value system, while explicit capital refers to the external components that make up the value of human capital, which are measured in standard ways such as length of service and education (Luthans et al., 2015). It contains explicit and implicit human capital, where implicit capital refers to employees' knowledge, experience, creativity, and value system, while explicit capital refers to the external components that make up the value of human capital measured in standard ways such as length of service and education (Luthans et al., 2015).

Human Capital Management: Arnaout (2017) defines it as an administrative approach that higher education institutions can rely on in formulating an appropriate strategy to manage its human element effectively and positively through a set of processes, activities, and efforts, in a way that achieves the interest of workers and society and directs it to achieve development requirements at the local, regional and global levels. However, Hossain and Roy (2016) define it as "an approach to employee staffing that perceives people as assets "human capital" whose current value can be measured and whose future value can be enhanced through investment" (p. 1025). This definition is in line with (Gibbon, 2022; Arora et al., 2021) agreeing that human capital management is a focused strategy used by organizations that include a set of tactics to select and hire the best candidates, develop career plans for them, teach and mentor them, motivate them to

always do their best, and evaluate and supervising performance. Procedurally, it is defined as the score obtained by Arab universities through the faculty members' responses to the questionnaire items related to the requirements for improving human capital management that consists of four domains: selection and recruitment, career development, Performance Appraisal, and rewards and incentives.

6. Research Limitations

The findings of this research can be generalized in light of the following limitations:

1. Objective Limitations: This research is limited to identifying the degree of requirements for improving human capital management in Arab universities.
2. Human Limitations: This research is limited to a sample of faculty members and experts from the teaching staff in Arab universities.
3. Spatial Limitations: This research is conducted in universities in Arab countries.
4. Temporal Limitations: This research is conducted in the second semester of the academic year 2022/2023.

7. Method

Research Approach

The descriptive approach is used to achieve research objectives because it is the most appropriate approach for such research, along with using a questionnaire as a means of collecting data related to the research.

Research Population & Sample

The research sample consists of all faculty members in Arab universities with the rank of professor, associate professor, and assistant professor selected by a convenience random sample method. According to the Robert-Mason 1989 equation, it is found that the minimum for such a sample is (526) faculty members. The sample members are distributed according to the study variables as shown in Table (1).

Table 1: The Distribution of the Research Sample According to the Research Variables

Variable	Categories	Frequency	Percentage
Gender	Male	342	65.02%
	Female	184	34.98%
Faculty	Humanities	311	59.13%
	Scientific	215	40.87%
Supervising Authority	Public	325	61.79%
	Private	201	38.21%
Academic Rank	Assistant Professor	201	38.21%
	Associate Professor	199	37.83%
	Professor	126	23.95%
Number of Years of Experience	Less Than (5) Years	29	5.51%
	From (5) to Less Than (10) Years	190	36.12%
	More than (10) Years	307	58.37%
		526	100.00%

Research Instrument

Using the following theoretical literature and previous studies (see, for example, Abubakar et al., 2022; Kiran et al., 2022; Rwothumio et al., 2021; Chemutai & Khalili, 2022; Mugiziand Nuwatuhaire, 2018; Munyoro et al., 2016; Mwashila et al., 2017; Arnaout, 2017; Salem et al., 2019; Ibrahim & Abdo, 2020; Mani, 2022; Bashir, 2017), a 48-item questionnaire is designed as a research instrument distributed over four domains: selection and recruitment with 13 items, career development with 15 items, Performance Appraisal with 10 items, and rewards and incentives with 10 items. The questionnaire's items are responded to according to a five-point Likert scale by giving each item one point of approval from among its five grades (very high, high, medium, low, very low), which are numerically represented (1, 2, 3, 4, & 5), respectively.

Research Instrument Validity

The content validity is used to check the research instrument validity by reviewing the questionnaire in its initial forms from (52) experienced and specialized faculty members in Jordanian universities. The comments, modifications, and

recommendations proposed by the validators are taken into account, as the items have obtained an approval rating of (80%) or more. The necessary action is taken with the items suggested to be deleted, modified, or reformulated, and thus the questionnaire in its final form consists of (48) items, distributed over the four domains.

Research Instrument Reliability

The research instrument reliability is checked by using the application and re-application method, where the instrument is applied and re-applied to an exploratory sample of the research population consisting of (32) faculty members from outside the research sample, with a time interval of two weeks between the two applications. Reliability coefficients are estimated by calculating the Pearson Correlation Coefficients between the results of the two applications. The values for the domains have ranged between (0.79) and (0.85) and for the instrument items as a whole (0.80). Table (2) illustrates the values of these coefficients.

Table 2: Values of the Reliability Coefficients of the Application and Reapplication Method for Instrument Domains and for the Entire Instrument

Domains	Reapplication Reliability Coefficient
Selection and Recruitment	0.85
Career Development	0.82
Performance Appraisal	0.80
Rewards and Incentives	0.79
The Entire Instrument	0.80

Research Variables

1. Independent Variables

Gender: Female and Male

Faculty: Humanities and Scientific

Supervisory Authority: Public and Private

Academic Rank: Assistant Professor, Associate Professor, and Professor

Number of Years of Experience: Less Than (5) Years, From (5) to Less Than (10) Years, and More Than (10) Years.

2. Dependent Variables

It is the degree of requirements for improving human capital management in Arab universities as a gateway to achieve sustainable development from the perspective of faculty members which is expressed by the means of the sample members' responses on the questionnaire items and their domains prepared for this purpose.

Statistical Processing

The following statistical methods are used to answer the research questions and process the data statistically.

1. Frequencies and percentages are used to describe the demographic characteristics of the research sample.
2. Means, standard deviations, ranks, and degrees are used to answer the first research question.
3. The multivariate analysis of variance test and five-way variance ANOVA test are used to answer the second research question.
4. Scheffé's test for post-comparisons, as this test is used for composite comparisons of "more than two means", and for equal and unequal sample sizes.
5. The following statistical criterion is used to distribute the means: "from 1 to less than 1.80 requirements of a very low degree", "from 1.80 to less than 2.60 requirements of a low degree", "from 2.60 to less than 3.40 requirements of a medium degree", "from 3.40 to less than 4.20 requirements of a high degree", and "from 4.20 to less than 5.00 requirements of a very high degree".

8. Results & Discussion

First: Results related to the First Research Question

What is the degree of requirement for improving human capital management in Arab universities as a gateway to sustainable development from the perspective of faculty members?

To answer this question, the means and standard deviations of responses of faculty members to the questionnaire of the degree of requirement for improving human capital management in Arab universities are calculated. Table (3) illustrates those results.

Table 3: Means, Standard Deviations, Degrees, and Rank of Availability of Requirements for Improving Human Capital Management Instrument in Arab Universities from the Perspective of Faculty Members Arranged in Descending Order According to the Means

No.	Domain	Mean	Standard Deviation	Degree	Rank
1	Career Development	4.02	0.67	High	2
2	Selection and Recruitment	4.00	0.59	High	1
3	Performance Appraisal	3.99	0.68	High	3
4	Rewards and Incentives	3.96	0.96	High	4
	All Instrument Items	3.99	0.66	High	

*Maximum score of (5).

As shown in Table (3) shows, the mean of the sample members' responses to the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development as a whole is (3.99) with a standard deviation of (0.66), which corresponds to a high degree of requirements, where all domains are highly rated. This is due to faculty members' awareness of the importance of the availability of human capital to universities, and thus the importance of improving its management in universities to keep pace with global trends supporting investment in human capital as a gateway to excellence and achieving a prominent position for universities in global academic groups.

This result is in line with (Kucharčíková, 2015), demonstrating that human capital has a crucial role in increasing the productivity and outputs of an organization. Human capital is also one of the most important resources for universities in light of the challenges they face, as they have to compete globally. The level and quality of human capital within universities plays an important role not only in providing high-quality education but also in the ability of universities to establish novel commercial and organizational operations. Human capital development also enhances the level and productivity of faculty members (Pepple, 2019; Omojola, 2019). Human capital management also positively affects performance, as salaries, wages, training and development, rewards, bonuses, and employee promotion have a positive and important impact on the performance of employees in universities (Mani, 2022).

Human capital management is strategic for the efficiency of universities, as it is necessary to attract and retain qualified employees (Bucăța & Tileagă, 2023). Dewi et al. (2022) add that for an organization to successfully achieve its goals, it needs quality human capital and its management. Hence, having strategies to improve human capital productivity to achieve higher value for the university has become imperative through comprehensive programs to manage it successfully (Abubakar, 2022). Human capital management represents an approach to employee recruitment that views individuals as assets "human capital" whose current value can be measured and whose future value can be enhanced through investment through good management of these assets (Hossain & Roy, 2016).

Human capital management is concerned with maximizing the value of the organization's human resources to provide the best results (Tortia et al., 2022). These requirements are of a high degree due to the need of Arab universities to improve human capital management due to the competitive challenges they face on the one hand, and the apparent shortcomings in investing, developing, or managing human capital in these universities on the other hand. This is also consistent with the results of many studies addressing this aspect in some Arab universities (see, for example, Arnaout, 2017; Al-Jarrah, 2019; Salem et al., 2019; Al-Shahrani, 2019; Al-Subaie & Al-Muzaini, 2020; Muhammad et al., 2021; Al-Shammari, 2022).

The career development domain is ranked first, as the mean of the sample members' responses for the entire domain is (4.02) with a standard deviation of (0.67), which corresponds to a high degree of requirements. This is thanks to faculty members' awareness of the importance of career development so that they can meet the challenges and modern trends of universities and increase their universities' competitiveness. Human capital management also emphasizes career development that contributes to the personal growth of every employee (Saleem & Amin, 2013). Meaning, development, choice, and competence are also four components of intrinsic motivation (Thomas & Tymon, 2009). Career development represents a progressive engagement with work that has the potential to reach beyond social status, economic requirements, well-being, identity, and life satisfaction (Abele et al., 2016).

Hence, career planning and development are carried out by successful organizations that work to achieve their goals (Kiran et al., 2022). Therefore, Khan et al. (2011) argue that career development is an extremely important process of human capital management that helps individuals become more valuable to the organization by preparing them to work on multiple tasks and enhancing their professional talents in their current roles. It also enhances organizational planning

strategy by educating future leaders for more responsible roles and positions of greater authority (Kulkarni, 2013). Pringgabayu and Ramdlany (2017) assert that career development, especially focusing on training, is the option of organizations to increase human capital as people bring human capital to the organization although it is then developed through training (Hossain & Roy, 2016).

For universities, training and career development contribute to developing the performance of faculty members, as it is the way to enable the university to continuously achieve its goals and enhance efficiency and effectiveness (Chemutai & Khalili, 2022). It is a positive indicator of all three factors of employee retention (Abubakar et al., 2022). It contributes to developing the level of academic performance of faculty members (Mwashila et al., 2017; Ntirandekura et al., 2022), and participating in training helps empower faculty members to be more professional (Pepple, 2019). The contemporary university environment also faces many challenges that require the career development of faculty members, such as competitive funding models, performance agendas, globalization and internationalization, expansion, and technological developments, which resulted in the rapid development of many standards, practices, and activities of universities and colleges, which affected professional life and experiences of the faculty members in the workplace (Bossu et al., 2019).

Secondly, the selection and recruitment domain is ranked second as the mean of the sample members' responses on the entire domain is (4.00) with a standard deviation of (0.59), which corresponds to a high degree of requirements. This is due to the importance of this domain in attracting talented faculty members by providing strict, fair, and transparent selection and recruitment policies and procedures to select the best candidate to support the overall corporate strategic objectives. This is supported by the point that the recruitment and selection of academic staff, who represent the university's most valuable assets, is crucial for education to be competitive at international levels, as universities require academics with relevant qualifications and experience from credible universities and be able to contribute to teaching, research and community service (Munyoro et al., 2016).

It is also found that the appointment and selection of faculty members is an essential aspect of university life, a vital tool for university management, and a relevant issue for research in higher education (Henningsson & Geschwind, 2021). It also positively affects the organizational commitment of academics (Mugizi & Nuwatuhaire, 2018). Therefore, Kiran et al. (2022) argue that selection and recruitment are fundamental responsibilities of human capital management through job analysis, workforce planning, and selection. The selection and retention of staff at universities is a matter of great concern. Investing in human capital through its distinguished management plays an important role in the university's retention of its employees, due to the high rate of employee turnover, and retaining competencies drives the production of new services and innovations and contributes to the permanent succession of the organization (Abubakar et al., 2022).

Thirdly, the performance appraisal is ranked third in terms of importance, as the mean of the sample members' responses on the entire domain is (3.99) with a standard deviation of (0.68), which corresponds to a high degree of requirements. This demonstrates the sample's awareness of the importance of fulfilling this requirement based on clear and diverse criteria, as the faculty member is one of the most important pillars of achieving the university's three functions "education, scientific research, community service", and thus their success or failure in performing the duties depends on the success or failure of the university in achieving its vision, mission, and goals. Therefore, evaluating a process's performance is extremely important to reward and promote it, as it represents a systematic process through which academics are given feedback on their performance and further rewards and promotion (Igojekwe & Ugo-Okoro, 2015).

Performance appraisal is associated with many teaching, research, and administration duties, as it is one of the basic practices in contemporary universities (Khtere, 2021). It is also related to a positive relationship with faculty member's teaching and research performance (Rwothumio et al., 2021), and is important in enhancing the job satisfaction and productivity of faculty members (Dasanayaka et al., 2021). Therefore, performance appraisal is a human capital management practice that is extremely important in enhancing the performance of faculty members in universities because it serves as a roadmap for evaluating individual performance and the overall performance of institutions (Akpan, 2016).

Palshikaret (2017) maintains that performance evaluation is one of the most important areas of human capital management widely used to compare employees' performance levels with the required standards and is directly linked to the organization's effectiveness and achievement (Anitha, 2013). Employee performance is linked to performance review procedures, promotion procedures, and reward practices (Ahmad & Shahzad, 2011). It also represents the most important tool for any organization because the results it produces are very useful in making decisions on a variety of employee issues, including promotion conditions, performance measurement, and rewards (Kadiresan et al., 2015).

Regarding the domain of rewards and incentives, although it is ranked last, it has a high level of requirements, and this confirms the importance of this domain in human capital management and the availability of the requirements. This result is supported by (Kucharčíková, 2015) indicating that employees should be motivated from time to time so that they develop a feeling of attachment towards their organization to give their best as employee performance is linked to incentive programs and workplace well-being (Anitha, 2013). Also, the availability of models for promoting and motivating R&D personnel in organizations that interact directly with external knowledge sources such as universities

makes it easier to generate more innovations derived from knowledge exchange and incentive systems dedicated to innovation (Saebi & Foss, 2015).

Mabaso (2017) also confirms that universities are at risk of losing highly qualified staff, as without qualified and committed faculty, universities cannot guarantee sustainability and quality in the long term. Since attracting and retaining qualified faculty members is the biggest challenge in human capital management, universities need to adopt reward systems that satisfy them, as faculty members' rewards are an important element in exchanging their contribution and play an important role in attracting, motivating, and satisfying them, maintaining commitment among them and retaining them while ensuring a high level of performance.

Second: Results related to the Second Research Question

Are there statistically significant differences at the significance level ($\alpha < 0.05$) between the means of faculty member's response to the degree of requirements for improving human capital management in Arab universities as a gateway to sustainable development due to the variables of gender, faculty, supervising authority, academic rank, and number of years of experience?

To answer this question, the means and standard deviations of responses of faculty members to the questionnaire of the degree of requirement for improving human capital management in Arab universities according to gender, faculty, supervising authority, academic rank, and number of years of experience are calculated. Table (4) illustrates those results.

Table 4: Means and Standard Deviations of the Responses of the Research Sample Members on the Domains of the Degree of Requirements for Improving Human Capital Management in Arab Universities as a Gateway to Achieving Sustainable Development According to the Research Variable

Variable	Levels	Selection and Recruitment		Career Development		Performance Appraisal		Rewards and Incentives		All Domains	
		AM	SD	AM	SD	AM	SD	AM	SD	AM	SD
Gender	Male	3.91	.632	3.78	.577	3.87	.697	3.69	.980	3.82	.647
	Female	4.16	.450	4.46	.613	4.21	.578	4.46	.687	4.33	.540
Faculty	Humanities	4.04	.606	4.05	.718	4.09	.652	4.15	.828	4.08	.649
	Scientific	3.95	.552	3.97	.601	3.84	.683	3.69	1.071	3.88	.655
Supervising Authority	Public	3.96	.582	4.04	.720	3.86	.706	3.96	1.055	3.96	.695
	Private	4.06	.589	3.98	.590	4.19	.572	3.96	.789	4.04	.593
Academic Rank	Assistant Professor	3.84	.576	3.75	.780	3.83	.815	3.86	1.173	3.93	.772
	Associate Professor	3.92	.539	3.81	.528	3.91	.441	3.61	.674	3.82	.517
	Professor	4.39	.498	4.16	.616	4.36	.598	4.68	.481	4.37	.494
Number of Years of Experience	Less Than (5) Years	3.99	.570	3.99	.675	3.88	.776	3.81	1.062	3.93	.705
	From (5) to Less Than (10) Years	3.95	.255	3.90	.313	3.93	.251	3.67	.424	3.87	.272
	More than (10) Years	4.04	.718	4.09	.814	4.03	.828	4.15	1.131	4.08	.798

As shown in Table (4), there are apparent differences between the means of the sample members' responses on the domains of the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development according to the research variables. The multivariate analysis of variance test is used to determine the statistical significance levels of these differences. Table (5) illustrates those results.

Table 5: Multivariate Analysis of Variance Test MANOVA Test Results for the Differences among the Means of the Faculty Members' Responses to the Domains of the Degree of Requirements for Improving Human Capital Management in Arab Universities as a Gateway to Achieving Sustainable Development According to the Research Variables

Variables	Domains	Sum of Squares	DF	Mean Square	F	Sig.
Gender Hotelling=0.852 h=0.000	Selection and Recruitment	26.710	1	26.710	109.059	.000*
	Career Development	76.078	1	76.078	268.672	.000*
	Performance Appraisal	55.694	1	55.694	203.290	*.000

	Rewards and Incentives	120.955	1	120.955	244.372	.000*
Faculty Hotelling=0.888 h=0.000	Selection and Recruitment	1.437	1	1.437	5.866	.016*
	Career Development	1.094	1	1.094	3.864	.044*
	Performance Appraisal	.434	1	.434	1.583	.209
	Rewards and Incentives	2.214	1	2.214	4.474	.035*
Supervisory Authority Hotelling=0.815 h=0.000	Selection and Recruitment	7.424	1	7.424	30.314	.000*
	Career Development	21.906	1	21.906	77.362	.000*
	Performance Appraisal	44.489	1	44.489	162.390	.000*
	Rewards and Incentives	42.868	1	42.868	86.608	.000*
Academic Rank Lambda Wilks =0.521 h=0.001	Selection and Recruitment	33.192	2	16.596	67.763	.000*
	Career Development	14.249	2	7.125	25.160	.000*
	Performance Appraisal	23.426	2	11.713	42.753	.000*
	Rewards and Incentives	74.242	2	37.121	74.997	.000*
Number of Years of Experience Lambda Wilks =0.859 h=0.027	Selection and Recruitment	2.589	2	1.295	5.286	.005*
	Career Development	2.124	2	1.062	3.751	.024*
	Performance Appraisal	.465	2	.233	.849	.428
	Rewards and Incentives	1.083	2	.542	1.094	.336
Error	Selection and Recruitment	126.866	518	.245		
	Career Development	146.679	518	.283		
	Performance Appraisal	141.914	518	.274		
	Rewards and Incentives	256.391	518	.495		

*Statistically significant at the statistical significance level ($\alpha \leq 0.05$)

As displayed in Table (5), there are statistically significant differences at the significance level of ($\alpha \leq 0.05$) between the means of the sample members' responses to all domains of the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development due to the gender variable in favor of females' responses. This is due to the fact that although both genders need to change and improve human capital management in universities, males are more involved in these areas than females, and therefore more aware of the practices that already exist in universities and the existing gap between reality and expectations. Females are also not sufficiently aware of all the practices actually applied and those that need improvement. Therefore, their scores are higher than males due to their conviction that these practices are not carried out adequately in reality and therefore need to be improved. The results of the research differ from the results of the study of Ibrahim and Abdo (2020).

Moreover, results also show statistically significant differences at the significance level ($\alpha \leq 0.05$) between the means of the sample members' responses on all domains of the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development, with the exception of the domain of performance appraisal, attributed to the faculty variable in favor of the scientific faculties' responses. This is attributed to the desire of all faculty members in the scientific and humanities faculties for a fair and transparent evaluation, as the scientific faculties are more accurate and involved in these practices and more in contact with global practices reflected positively in the appreciation of reality and hopes and the desire for change.

Besides, the results indicate statistically significant differences at the significance level ($\alpha \leq 0.05$) between the means of the sample members' responses to all domains of the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development due to the supervisory authority variable on the university in favor of the responses of public universities. This is attributed to the state's interest in government institutions and the abundance and diversity of competencies in government faculties, in addition to the formal interest of private universities in managing human capital and their interest in the financial aspects as an investment project. This result is consistent with the results of Arnaout's study (2017).

In addition, the results indicate statistically significant differences at the significance level ($\alpha \leq 0.05$) between the means of the sample members' responses to all domains of the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development due to the academic rank. Scheffé's test is used to determine the sources of these differences, as shown in Table (6).

Table 6: Scheffé's Test Results for the Differences among the Means of the Respondents' Responses on the Entire Domains of the Degree of Requirements for Improving Human Capital Management in Arab Universities as a Gateway to Achieving Sustainable Development According to the Academic Rank Variable

Domain	Academic Rank	Mean	Assistant Professor	Associate Professor	Professor
			3.84	3.92	4.39
Selection and Recruitment	Assistant Professor	3.84	0.08	0.54*	*0.55
	Associate Professor	3.92			*0.47
Domain	Academic rank	Mean	3.75	3.81	4.16
Career Development	Assistant Professor	3.75		0.06	*0.41
	Associate Professor	3.81			*0.35
Domain	Academic rank	Mean	3.83	3.91	4.36
Performance Appraisal	Assistant Professor	3.83		0.08	*0.53
	Associate Professor	3.91			*0.45
Domain	Academic rank	Mean	3.61	3.86	4.68
Rewards and Incentives	Assistant Professor	3.61		0.25	*1.07
	Associate Professor	3.86			*0.82

* Statistically significant at the significance level ($\alpha \leq 0.05$)

As illustrated in Table (6), there are statistically significant differences at the significance level of ($\alpha \leq 0.05$) between the means of the sample members' responses to all domains of the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development between those with academic rank "assistant professor" on the one hand and the mean of responses of those with academic rank "associate professor and professor" due to the academic rank variable on the other hand. This result is because faculty members are more aware of their desire for change, their openness to these practices in advanced universities, and their frequent participation and need for these practices. These results differ from the results attained by (Ibrahim & Abdo, 2020; Arnaout, 2017).

Also, there are statistically significant differences at the significance level of ($\alpha \leq 0.05$) between the means of the sample members' responses to the two domains of selection and recruitment and career development among the domains of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development attributed to the variable of number of years of experience. Scheffé's test is used to determine the sources of these differences, as shown in Table (7).

Table 7: Scheffé's Test Results for the Differences among the Means of the Respondents' Responses on the Two Domains of Selection and Recruitment and Career Development among the domains of Requirements for Improving Human Capital Management in Arab Universities as a Gateway to Achieving Sustainable Development According to the Variable of Number of Years of Experience

Domain	Number of Years of Experience	Mean	Less Than (5) Years	From (5) to Less Than (10) Years	More than (10) Years
			3.99	3.95	4.04
Selection and Recruitment	Less Than (5) Years	3.99	3.99	0.05	0.05
	From (5) to Less Than (10) Years	3.95		*0.09	*0.09
Domain	Number of Years of Experience	Medium		4.09	4.09
Career Development	Less Than (5) Years	3.99	3.99	0.10	0.10
	From (5) to Less Than (10) Years	3.90		*0.19	*0.19

* Statistically significant at the significance level ($\alpha \leq 0.05$)

As demonstrated in Table (7), there are statistically significant differences at the significance level of ($\alpha \leq 0.05$) between the means of the sample members' responses to all domains of the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development between those with several years of experience "less than 5 years and 5-10 years" on the one hand, and the means of the responses of those with several years of experience "more than 10 years" on the other hand, noting that the result is attributed to the variable number of years of experience in favor of the responses of those with several years of experience "more than 10 years". This can be attributed to the desire of all groups with different numbers of years of experience for a fair and transparent evaluation that reflects actual performance and the presence of rewards and incentives based on this performance.

However, on the other hand, those with several years of experience “more than 10 years” are more familiar with the actual practices that take place in the domains of selection and recruitment and career development, and the participation of some in these domains, and thus are more sensitive to the problems and more willing to improve in these two domains. The results of the current research differ from the results of the study of Ibrahim and Abdo (2020).

A five-way variance ANOVA test is also conducted for the differences between the sample members’ responses on all domains of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development, depending on the differences in the research variables. Those results are shown in Table (8).

Table 8: Five-way Variance ANOVA Test Results for the Differences among the Faculty Members’ Responses to the Entire Domains of the Degree of Requirements for Improving Human Capital Management in Arab Universities as a Gateway to Achieving Sustainable Development According to the Research Variables

Variables	Domains	Sum of Squares	DF	Mean Square	F	Sig.
Gender	63.544	1	1	63.544	244.864	.000*
Faculty	.042	1	1	.042	.161	.689
Supervisory Authority	24.544	1	1	24.544	94.580	.000*
Academic Rank	28.760	2	1	14.380	55.412	.000*
Number of Years of Experience	1.327	2	1	.664	2.557	.079
Error	134.424	518	1	.260		
Total	8618.190	525	1			

* Statistically significant at the significance level ($\alpha \leq 0.05$)

As demonstrated in Table (8), there are statistically significant differences at the significance level of ($\alpha \leq 0.05$) between the means of the sample members’ responses to all domains of the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development due to the gender variable in favor of the females’ responses, and supervisory authority variable in favor of the responses of public universities. This result is attributed to the great interest in these universities by the state, in contrast to private universities that focus on profit. It is also found that there are statistically significant differences at the significance level of ($\alpha \leq 0.05$) between the means of the sample members’ responses to the domains of the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development due to the academic rank. Scheffé’s test is used to determine the sources of these differences, as shown in Table (9).

Table 9: Scheffé’s Test Results for the Differences among the Means of the Respondents’ Responses on the Entire Domains of the Degree of Requirements for Improving Human Capital Management in Arab Universities as a Gateway to Achieving Sustainable Development According to the Academic Rank Variable

Academic Rank	Mean	Assistant Professor	Associate Professor	Professor
		3.93	3.82	4.37
Assistant Professor	3.93		0.11	*0.44
Associate Professor	3.82			*0.55

- Statistically significant at the significance level ($\alpha \leq 0.05$)

As illustrated in Table (9), there are statistically significant differences at the significance level of ($\alpha \leq 0.05$) between the means of the sample members’ responses to all domains of the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development between those with academic rank “assistant professor” on the one hand and the mean of responses of those with academic rank “associate professor and professor” due to the academic rank variable on the other hand.

This result is due to the fact the category of associate professor and professor is closer to decision-making, and more familiar with administrative practices because they are more represented on the boards of scientific departments and colleges, and some of them hold administrative and academic positions.

Therefore, they are closer to the problems facing universities as a result of deficiencies in human capital management, and thus more willing and enthusiastic to improve them. It is also shown that there are no statistically significant differences at the significance level of ($\alpha \leq 0.05$) between the means of the sample members’ responses to all domains of the degree of requirements for improving human capital management in Arab universities as a gateway to achieving sustainable development due to the variables of faculty and number of years of experience. This is because the aspirations for improvement and the future are the same, the desire and enthusiasm for development are the same, and

everyone needs the requirements of improving human capital management despite their different specializations and experiences. The results of the current research agree with the results of the study of Ibrahim and Abdo (2020) and differ from the results of the study of Ali (2017).

9. Recommendations

Given the previous results, the research recommends key procedures to provide the requirements for improving human capital management in Arab universities as a gateway for achieving sustainable development. Regarding the career development domain, the university must provide career planning workshops and advice for making appropriate career decisions, develop a strategy and a developed plan for the career and professional development of faculty members, add programs to develop the capabilities of faculty members in light of global programs and trends, make strategic plans for career succession of academic and administrative leaders, and adopt strict standards and indicators that cover the university's functions.

The university is also required to ensure the promotion of the best in various academic ranks, draw a map of the knowledge, skills, motivations, attitudes, and personal traits of the current and future faculty members, cooperate with corresponding national and international bodies in organizing distinctive and qualitative training programs, and employ modern technology in the career and professional development processes for faculty members, enable faculty trainees to apply what they have learned in their workplace and analyze training and development needs before selecting faculty members to attend training and development courses.

Other procedures required by the university are enabling its employees to conduct comprehensive self-assessments to develop their professional lives between administrative and academic roles, allowing future leaders of faculty members for more responsible roles and positions of greater authority, seeking the assistance of experts specialized in career and professional development to benefit from their expertise, providing fully funded scholarships and scholarships to enhance the competencies of members, and focusing on gaining improved competencies for current performance and prepared for future professional roles and changes.

Secondly, concerning the selection and recruitment domain, the university must attract distinguished and talented scholars, academics, and researchers to achieve its vision as a distinguished, innovative, and internationally competitive organization, use strict criteria in making merit-based judgments in selection and hiring, make the selection and hiring policy, guidelines, and related documents available to all faculty members and applicants, strive for continuous improvement of the selection and recruitment policy and procedures, recognize that promoting diversity benefits the university community and leads to a safe, innovative and thriving environment, and follow a strict, correct and advanced selection system that helps in identifying the best suitable candidate.

The university shall incorporate selection and recruitment process various activities and processes to select the best candidates, use techniques that predict individuals who will be outstanding performers, establish strict controls to make the selection and recruitment process more fair, impartial, transparent and professional, and reliable, conduct careful workforce planning to support comprehensive institutional strategic goals before hiring, be a member of professional recruitment networks to attract distinguished faculty members from abroad, employ faculty members according to a comprehensive job description that reflects its strategic goals and organizational orientations, and set controls to ensure responsibility and accountability for decisions to select and employ faculty members.

Thirdly, relating to the performance appraisal domain, the university shall also focus on ensuring that the university's performance evaluation standards reflect job-specific behaviors such as workload, quality of work, knowledge of the job, dependability, and innovation, have a work plan that includes clear procedures for evaluating a faculty member's performance in light of quality assurance and accreditation standards, and make sure that the university's performance evaluation standards reflect faculty job-related ethical behaviors such as punctuality, dedication, enthusiasm, cooperation, and perseverance.

In the same context, the university shall concentrate on evaluating a faculty member's performance on the quality of his or her contributions to the university and the state, consider the university's performance evaluation as a systematic process on which feedback, rewards, and promotion are based, have an updated database on evaluating the faculty member's performance in the university's three positions, obligate the faculty member to submit an annual performance evaluation report while ensuring its reliability, employ the evaluation of the performance of the university's faculty members in continuous improvement, emphasize the quality of international publication in evaluating the performance of faculty members, and consider students' evaluation of the effectiveness of faculty members as a standard in evaluating their performance.

Fourthly, concerning the rewards and incentives domain, the university is also required to provide lucrative financial incentives for scientific publishing in journals with a high impact factor, with rewards and incentives based on

achievement and results, furnish financial support for writing and translating scientific books, adopt appropriate mechanisms to help those with poor performance to continuously improve, and offer profitable financial incentives to distinguished faculty members in teaching.

The university also needs to deal strictly with those who continue to perform unacceptably, give the faculty members with the best performance at the university salaries and bonuses much higher than normal ones, adopt a clear and supportive policy in the field of motivating faculty members financially and morally, participate with its unique human resources in national and international scientific forums, and bear the cost of publishing distinguished scientific research in international scientific journals.

Conflict of interest

The authors declare that there is no conflict regarding the publication of this paper.

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