Adoption of HR 5.0 in Private Organizations of Kathmandu Valley

Kusum K.C.[1]

Abstract

This study examines the awareness in HR 5.0 and the factors affecting the adoption of HR 5.0 by private organizations in Kathmandu valley. This study employed explanatory research design. Decision-making theory approach was used to conduct research. Data was collected from primary source through the use of self-administered questionnaire to 403 HR professionals in private organizations of Kathmandu valley selected by using convenience sampling. The sample comprised HR professionals having years of experience in the HRM, having diverse age groups, genders, and organizational levels. Similarly, Structural Equation Modeling was used to examine the key factors impacting the adoption of HR 5.0 in private organizations. The study found that the majority of respondents were aware of HR 5.0 and its principles. It is concluded that competence and strategy are the significant factors to impact the adoption of HR 5.0 while digitization and strategy have negligible impact. Majority of HR professionals responded that they are willing to adopt HR 5.0. However, there are challenges to adopt HR 5.0 in the organizations due to lack of skilled manpower, high cost, poor management support, lack of digital knowledge and government policies. Addressing employees' feedback, proper government policy and the efficient use of available technology can be the managerial solutions to cope the challenges of adopting HR 5.0 in the private organizations.

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[1]Lecturer, Jana Bhawana Campus

Introduction

HR 5.0 is an emerging concept of Human Resource Management (HRM) which uses data and technology to enhance the employee experience and promote corporate success. It uses information technology in human resource (HR) practices to enhance employee engagement and to cope with changing workforce dynamics which leads to improved organizational performance and competitiveness. In the current age of digital revolution, it is important to adopt HR 5.0 to optimize the performance and behavior of the employees to achieve organizational success (Sylvester et al., 2015).

From the industry 1.0 revolution to Industry 4.0 revolution, the world has witnessed and experienced rapid technological advances and changes in HR system and practices (Schutte, 2019). In this course, HR 5.0 has been evolved as a major concept of fourth industrial revolution which is characterized by advancements in digital technologies like the Internet of Things, Big Data Analytics, Artificial Intelligence (AI) and fast data networks like 4G and 5G. (Sivathanu & Pillai, 2018).

In the current globalization era, managing organizations is becoming increasingly complex. Managers are facing difficulties in coping with diverse workforces due to cross-cultural environment that may be spread across diverse countries, cultures and political systems (Hecklau et al., 2016). Managing human resource with diverse cultures, languages, ethnics requires collection and analysis of huge dataset. Dealing with huge amount of data manually is nearly impossible in today's complex business world. For this purpose, HR 5.0 uses data analytics and AI to collect and analyze massive datasets about HR practices which leads to better organizational decisions.

HR 5.0, the latest development in HRM, is the outcome of the shifting demands of the contemporary workforce for new technology. Instead of relying on traditional HR practices, HR 5.0 is intended to be more data-driven, agile, and focused on offering a customized employee experience (Garg et al., 2022) The biggest benefit of using IT in HRM to organizations is the reduction of burden in HR staffs from routine nature works which enable them to concentrate on strategic planning in organization (De Alwis et al., 2022).

In Nepal, HRM is traced back to the Rana administration in the 19th century, which required the recruitment and management of public servants (Adhikari & Muller, 2013). Throughout 1950s and 1960s, Nepalese industrial sector began to grow, posing new HRM issues as businesses competed to attract and retain talented personnel. As Nepal moved to a liberal economy in the 1990s and welcomed international investment, it welcomed new HRM practices (Karki, 2014). Despite these developments, traditional HR practices are still persisted. As a result, the adaptation of HR 5.0 is a new culture in the country which is not yet adopted in most of the organizations (Khan et al., 2023; Subedi, 2021).

While extensive literatures exist on HR 4.0 (Strohmeier, 2020; Margherita & Bua, 2021), the conceptual clarity and empirical works regarding HR 5.0 is still in the infant stage. Recent studies are deeply focused in advanced countries in technical fields while empirical works on how emerging countries are adapting to this new HR practices are very limited (Khan et al., 2023). Speaking precisely, there is a lack of researches focusing on the adoption of HR 5.0 by private organizations in Nepal. From a practical point of view, most of the private organizations in Kathmandu valley depend upon traditional or semi-automated HR practices, thereby missing out the competitive advantages offered by HR 5.0 (Joshi & Dahal, 2022). Moreover, HR professionals often lack strategic vision in implementing new HR technologies, which hinders organizational agility and HRM capabilities (Subedi, 2021). This gap is serious because the effective adoption of HR 5.0 could help Nepalese organizations to enhance productivity, foster innovation, attract and retain talent. In the absence of empirical data on the adoption of HR 5.0 in the country, HR policy recommendations cannot be properly formulated.

To address the aforementioned gaps, this study attempts to examine the adoption of HR 5.0 in private organization in Kathmandu Valley. Kathmandu Valley is Nepal's commercial and economic hub, where large number of private organizations concentrates and actively involved in adopting advanced HR practices. Its diverse and dynamic business environment provides an ideal setting to examine the opportunities and challenges in implementing HR 5.0. On this ground, this research aims to provide deep insights on the adoption of HR 5.0 for academia, practitioners, and policymakers. Furthermore, it helps to contribute to the theoretical discourse on HR practices. Based on these premises, the research questions are formulated.

- What is the awareness level of HR 5.0 concept in private organizations?
- What are the challenges faced by organizations in adopting HR 5.0 practices?
- What are the management strategies to overcome challenges in HR 5.0 practices?
- What are the factors affecting in adopting HR 5.0 practices?

The second section incorporates empirical review of related articles. The third section includes research methodology which incorporates research design, sampling design, nature and sources of data, data collection techniques and tools of data analysis. The fourth section contains result and discussion. Finally, the fifth section contains conclusion.

Decision-Making Theory

Decision-making theory assists individuals and firms to choose the best one from a series of alternatives to attain desired outcomes (Edwards, 1954). Among its numerous dimensions, rational decision-making theory has particular relevance in modern HRM. This theory incorporates a systematic and logical process: identifying the problem, collecting relevant information, evaluating alternatives, and selecting the most promising one. However,

in the complex and data-driven business world, the traditional way of apply this approach is challenged by the huge volume and speed of business information.

This is where HR 5.0 appears as a transformative solution. By combining human-centric norms with cutting-edge technologies, HR 5.0 uplifts the organizational strength for rational decision-making. Through automation in data collection and real-time analysis of voluminous datasets related to recruitment, employee development, performance evaluation, and compensation, HR 5.0 does not only execute information processing but also alleviates human biases and errors existed in manual analysis.

In conclusion, rational decision-making through HR 5.0 does not replace human judgment but helps to supplement it. HR professionals can focus on strategic decision making while depending on AI for regular organizational tasks. By this process, HR 5.0 operationalizes rational decision-making theory in a technically advanced way and make decision making more reliable, objective, and aligned with both individuals and organizational goals. Hence, HR 5.0 does not merely assist in decision-making, it redefines its rationality in the era of modern business world.

National Information and Communication Technology Policy, 2015

Government of Nepal (GoN) has documented the major role of Information and Communication Technologies (ICTs) as a deliberate factor of national development. National ICT Policy 2015 clearly reflects this commitment, which has set its goals to alleviate poverty, enhance employment opportunities, fosters economic growth, and promote sustainable development through the use of ICTs. A major provision of this policy focuses on the digital literacy as a condition for employment and career development. Hence, it encourages ICT awareness programs and encourages especially women and youth to pursue ICT as a feasible career path.

The significance of the National ICT Policy 2015 to the adoption of HR 5.0 in the Nepalese context is both direct and substantial. HR 5.0 needs the manpower who are not only digitally literate but also adaptive to technological change. By focusing on ICT awareness programs, the policy assists on building the digital competencies required for executing HR 5.0 practices.

Furthermore, the policy's objective on promoting ICT-based employment aligns with HR 5.0's need for technologically literate HR professionals and data-driven decision-making processes. It cultivates an environment in which both employees and employers are motivated to use digital tools in HR functions, thereby speeding the alteration of traditional HR systems into strategic HR 5.0 frameworks. In this context, the National ICT Policy 2015 plays the role of a inducer for the adoption of HR 5.0 by addressing the digital transformation in Nepalese organizational environment.
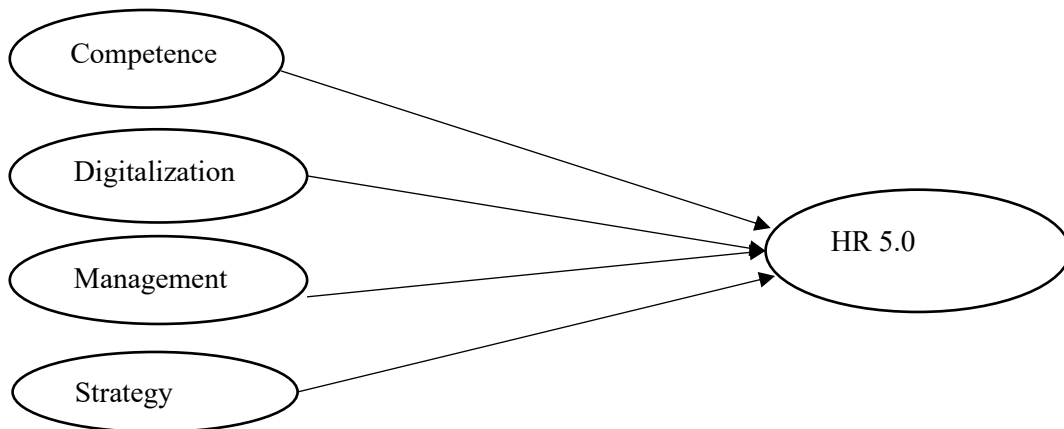
Empirical Reviews

International research articles showed that numerous studies were conducted to examine the adoption of HR 5.0 by private organizations. In Pakistan, companies utilized chatbots to conduct the hiring process, lighten the work pressure on HR workers, and used data analytics to make better decisions (Alam et al., 2016). In Bangladesh, employers could post job opportunities and accept applications using online platforms for recruiting, which could speed up the hiring process and reach a larger pool of applicants. Hence, HR 5.0 helps to attract better human resources (Mujeri, et al., 2018). Some other researchers suggest the adoption of digital technology to improve HR functions. For instance, DiRomualdo et al. (2018) explored that organizations must implement digital transformation to improve HR capabilities, service offerings and performance. Similarly, Misbah and Budiyanto (2020) found that HRM should formulate strategies to apply digital technology for increasing productivity, capability and competence of workers to face global challenges. Similarly, Abdelraouf and Kadry (2024) emphasized on the importance of implementing AI and suggested to provide training programmes for human professionals. Mishra and Akman (2010) found that there is a growing tendency of organizations applying few technologies systematically in the performance of HR functions.

In Nepal, few studies are conducted which examined the adoption of digital technology in HR functions. Pradhan (2024) surveyed private and public organizations in Nepal to examined the use of HR technology. The study found that most firms then used HR software for recruitment, training and development, performance appraisal, compensation management, and labour-management relations. Similarly, the use of technology had improved employee productivity, product quality, and cost control in organized private firms. However, most of the SMEs still depend upon manual HR practices. The basics of HR 5.0 such as digital technology, data, and awareness are emerging among corporate sectors in Nepal (Poudel & Bhattarai, 2022). However, widespread adoption is still limited due to low digital literacy, resource constraints, employee reluctancy to change and inconsistent human resource infrastructure (KC, 2020). To accelerate this transition, a concerted push in training, investment in technology, motivation to employee and cultural change are required in both private and public sectors (Neupane, 2022).

Conceptual Framework

Figure 1 presents the conceptual framework of the study.

Figure 1
Conceptual Framework

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  ┌───────────────┐
  │  Competence   │──────────────┐
  └───────────────┘               \
                                    \
  ┌───────────────┐                  \
  │ Digitalization│───────────────┐   \
  └───────────────┘                \   \      ┌──────────────┐
                                     ───────►  │   HR 5.0     │
  ┌───────────────┐                /   /       └──────────────┘
  │  Management   │───────────────┘   /
  └───────────────┘                  /
                                    /
  ┌───────────────┐                /
  │   Strategy    │───────────────┘
  └───────────────┘
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Source: Blount (2022)

Hypotheses

H1: There is a positive effect of competence on the adoption of HR 5.0.

H2: There is a positive impact of digitalization on the adoption of HR 5.0.

H3: There is a positive impact of dynamic management on the adoption of HR 5.0.

H4: There is a positive effect of organizational strategy on the adoption of HR 5.0.

Operational Definition of Variables

Variables under study are explained in this section.

1. **Competency and HR 5.0**

Competency refers to the combination of knowledge, skills and attitudes that employees possess to perform their tasks effectively and efficiently (Sandberg, 2000). Information and data literacy, communication, digital content creation, safety and security, strategic positioning, learning, problem solving and training are items of competence construct (Flores et al., 2020). HR 5.0 is the next generation of HRM that focuses on human-centric and technology-driven HR practices which blend IT (such as AI, robotics) with human aspects (such as empathy, creativity, adaptability). There is a relationship between competency and HR 5.0 because both approaches emphasize on making employees more capable, future-ready, and aligned with new working methods. In HR 5.0, organizations must redefine competencies to new dimensions such as digital literacy, emotional intelligence and innovation. HR 5.0 ensures employees stay competent in a dynamic world through upskilling and reskilling

programs. Hence, competencies are the building blocks and HR 5.0 is the architect which build together a new "human-tech" workplace.

2. Digitalization and HR 5.0

Digitalization means using technology (such as AI, big data, Internet of Things, automation) to enhance work procedures and make quick decisions (DiRomualdo et al., 2018). Digitalization is the basis for HR 5.0. HR 5.0 cannot deliver smart, flexible, personalized work experiences to employees in the absence of digital tools. HR 5.0 uses digitalization for different purpose such as AI-driven recruitment, digital onboarding, personalized learning platforms, data-driven performance appraisal and HR analytics. HR 5.0 ensures digitalization makes work efficient with the human element remains in central approach. Hence, digitalization gives HR 5.0 the tools; HR 5.0 gives digitalization the soul (DaSilva et al., 2022).

3. Management and HR 5.0

Management is concerned with planning, organizing, leading, and controlling physical, financial and human resources to attain organizational goals (Pierce& Dunham,1989). HR 5.0 ensures effective and efficient management functions by introducing new tools (such AI, data analytics, digital platforms). Similarly, HR 5.0 reforms management styles by moving from traditional "command-and-control" approaches to more collaborative, adaptive, and employee-driven work approaches. In HR 5.0 era, managers must concentrate not only on productivity, but also on well-being and reskilling, of employees. HR 5.0 gives management new strategies for motivating, developing, and retaining talent workforce in a dyna mic world. Hence, management provides the leadership, and HR 5.0 modernizes it to be more human-centric, tech-friendly, and future-ready (DaSilva et al., 2022).

4. Strategy and HR 5.0

Strategy is the plan of action an organization uses to reach its long-term goals. HR 5.0 supports the overall strategy by making sure the right people with the right skills in the right place to achieve its long-term goals. HR 5.0 assumes that not only technology but human traits and talent are considered as the main factors of strategic success. HR 5.0 elements such as workforce digital transformation, employee upskilling and reskilling and employee well-being are considered indispensable for strategic success. Hence, strategy determines the destination, HR 5.0 builds the techno-powered human resources to get there (DaSilva et al., 2022).

Research Design

This study employed explanatory research design. Decision-making theory approach was used to conduct research.

Population, Sample Size and Sampling Design

All proprietors, HR managers, admin-heads and HR assistants of private organizations are considered as a part of the population. In this study, convenience sampling is used to investigate the adoption of HR 5.0 by private organizations in Kathmandu valley. The sample size was calculated by using following formula.

$$\text{Sample size (n)} = \frac{N \times X}{X + N - 1}$$

$$X = \frac{(Z_{\alpha/2})^2 \times p \times (1 - p)}{MOE^2}$$

$Z_{\alpha/2}$ = critical value of the traditional distribution at $\alpha/2$

(e.g., for a confidence level of 95%, α is 0.05 and also the critical value is 1.96).

MOE = Margin of error

p = sample proportion and

N = population size

A finite population correction has been applied to the sample size formula.

$$X = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2}$$

$= 384.16 \sim 384$

Now,

$$\text{Sample size (n)} = \frac{288{,}057 \times 384}{384 + 288{,}057 - 1}$$

$= 383.4901 \sim 384$

Researcher also added non-respondent error 5%

i.e., $= 384*0.05$

$= 19.2 \sim 19$

Now the sample size needed is n $= 384 + 19 = 403$.

Data Collection Technique

A self-administered questionnaire was used to conduct survey on the adoption of HR 5.0 in private organizations in Kathmandu valley. Four independent variables were constructed in the questionnaire namely competence, digitalization, management and strategy. Similarly, the adoption of HR 5.0 is constructed as dependent variable. Four items were

included to construct each of these variables. For instance, proper use of devices, data and privacy (C4), proper use of flexible classrooms and modern methods (C6), creative use of digital technologies to solve the problem (C7) and training helps to develop new competencies (C8) are the items to construct the variable - Competence. Similarly, knowledge need on the IOT, AI, cloud computing, big data and VR in the recruitment (D2), digital transformation creating new ways of in the workplace (D4), digital technologies' potential to transform HR 5.0 (D5) and convenience technology (D6) are the items used to construct the variable – Digitalization. Similarly, learning and training' assistance to employees to adopt the changing nature of job profiles (M1), proper management of recruitment and selection to attract competent talent (M2) and rewards and performance management based on productivity, performance, skill, knowledge and competence (M3), proper management for organizational capabilities (M6) are the items used to construct the variable – Management. Similarly, working with diversified people (S1), organizational strategy's role in technological improvements (S4), implementation of innovation (S8) are the items used to construct the variables – Strategy. Finally, HR 5.0's facilitation in data exchange (HR1), HR 5.0's role in employment development and training (HR3), HR 5.0's role in employee's productivity information (HR4) and HR 5.0's role in reshaping the quality of digital (HR 5) are the items used to construct the dependent variable – the adoption of HR 5.0. A five-point Likert scale was construct to measure each variable namely Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly Agree (5) respectively.

The structured questionnaires were administered in KOBO toolbox to maintain both online and offline data collection. Data collection was conducted with the consent of the respondents and with the approval of concerned with private organizations. Similarly, the respondents' responses are presented in the study. without any falsification and fabrication. Respondents' privacy was highly respected during data collection. Then, a pilot survey of 15 samples was done to confirm the consistency and accuracy of the instrument.

Similarly, data were analyzed using descriptive and inferential methods, which included Structural Equation Modeling (SEM) based on latent variables in the. KOBO Toolbox, PLS-SEM and MS-Excel were used for data analysis.

Data Analysis Techniques

Both descriptive and inferential analysis were conducted to solve the research problems. Descriptive analysis includes the detail description of socio-demographic factors which includes name, age, experience, level of education, income source, designation etc. Similarly, the second section deals with awareness on HR 5.0. Similarly, the third section deals with factors affecting the adoption of HR 5.0. However, fourth section deals with the challenges in adoption of HR 5.0 in private organizations and finally, fifth section deals with managerial solutions to overcome the hurdles.

Partial Least Squares Structural Equation Modeling (PLS – SEM) was used to analyze relationships between observed and latent variables. Normality test was conducted to test the normality of the data set. Similarly, Structural Equation Modeling (SEM) was conducted to examine relationship among variables.

Cronbach's alpha was used to check the reliability. Similarly, factor loadings were conducted to create the constructs from different items which ensures validity. In this course, convergent and discriminant validity were measured. Average Variance Extracted (AVE) is calculated to check convergent validity which examines whether indicators of a construct are closely related. Similarly, HTMT (Heterotrait-Monotrait) ratio was calculated for discriminant validity to check whether the constructs are different from one another. Both reflective and formative models were used to create the constructs. Skewness and kurtosis were used to conduct normality test. Similarly, the study uses Variance Inflation Factor (VIF) to conduct collinearity test to check if there is any common method bias. Bootstrapping was used in PLS-SEM to calculate t-values for testing model paths.

Results and Discussion

The results of the study are classified into descriptive and inferential analysis.

Socio- Demographic Profile of the Respondents

This section deals with the socio-demographic profiles of the respondents. It incorporates gender, age, level of education, working experience, location, industry type, scale of industry, designation, income level of the respondents.

Table 1 shows the socio-demographic profiles of the respondents. Out of 403 respondents, 79.9 % were male and 20.1 % were female which shows that majority of HR professionals are male.

Similarly, the highest number of HR professionals are from age group of 30-40 years & 40-50 years which accounted to i.e. 36.23% and 36.23% respectively. In contrast, the lowest number of HR professionals are of 50 years and above which accounted for 8.68%. Hence, the most of the HR professional are middle-aged.

Furthermore, 65.26% respondents have bachelor's degree, 30.52% have masters' degree and remaining 4.22% have education above master's degree. It shows that most of the HR professionals have bachelor degree.

Table 1

Socio-Demographic profile of the Respondents

Title	Category	Numbers	Percentage
Gender	Male	322	79.9
	Female	81	20.1
Age	20-30 years	76	18.86
	30-40 years	146	36.23
	40-50 years	146	36.23
	50 years & above	35	8.68
Education Level	Bachelor	263	65.26
	Master	123	30.52
	Master & above	17	4.22
Working Experience	2-4 years	62	15.38
	4-6 years	111	27.54
	6-8 years	107	26.55
	8-10 years	81	20.1
	10 years & above	42	10.42
Location	Lalitpur	227	56.33
	Kathmandu	140	34.74
	Bhaktapur	36	8.93
Total Investments	Up to 5 crores	257	63.77
	5-15 crore	118	29.28
	More than 15 crores	28	6.95
Industry Type	Service Sectors	137	34
	Educational Sectors	66	16.38
	Health	47	11.66
	Construction Industries	42	10.42
	Financial Institutions	23	5.71
	Manufacturing	7	1.74
	Processing	5	1.24
	Job Providing Companies	5	1.24
	Telecommunication	5	1.24
	Others	42	10.42
Designation	Proprietor	96	23.82
	Managing Director	79	19.6
	Department Head	56	13.9
	Manager	44	10.92
	Administrative Officer	43	10.67
	Chairman	26	6.45
	HR Manager	19	4.71
	Operation In charge	13	3.23
	Executive Recruiter	8	1.99
	HR Consultant	8	1.99
	CEO	3	0.74
	Others	8	1.99
Income Level	20000-30000	14	3.47
	30000-40000	84	20.84
	40000-50000	149	36.97
	50000 & above	156	38.71

Source: Field Survey,2023

Speaking to the location, the highest respondents i.e. 56.33% were from Lalitpur and the lowest respondents i.e. 8.93% were from Bhaktapur.

Further analysis shows that 63.77% respondents were involved in small-sized companies. 29.28% were involved in medium-sized and rest 6.95% were involved in large-sized companies. It shows that very few HR professionals were engaged in large-sized companies.

Speaking to the industry type, the highest respondents from service sectors i.e. 34% and lowest respondents were from processing, job providing companies and telecommunication respectively each sector comprising 1.24% HR professional. It shows that most of the HR professionals were from service sectors.

Furthermore, the highest number of HR professional's designation is proprietor i.e. 23.82% and the lowest number of HR professional's designation is training and development manager, business analyst, recruitment and placement manager respectively comprising 0.25% HR professional in each group. It shows that most of HR professionals were proprietors.

Finally, the most of the HR professional i.e. 38.71% have income level of 50000 & above and lowest i.e. 3.47% HR professional have income level of 20000-30000. It shows that most of the HR professionals have income level of 50000 and above.

Awareness regarding the Concept of HR 5.0 in Private Organizations

Awareness index is calculated based on the 20 questionnaires with "Yes'' and "No'' which were asked to HR professionals regarding the adoption of HR 5.0 by private organizations. In this process, if a respondent gives 15 (75%) or more questions correctly, he/she taken as highly aware of adoption of HR 5.0 (Y=2). Similarly, if a respondent gives less than 15 (75%) and more than 10 (50%) questions correctly, he/she is taken as moderately aware of adoption of HR 5.0 (Y=1). Similarly, if a respondent responds less than 10 (50%) question correctly, then he/she taken as the less aware on adoption of HR 5.0 (Y=0).

$$Y(\text{Awareness}) = \begin{cases} Y = 0, \text{if scale score} < 50\% \\ Y = 1, \text{if } 50\% < \text{scale score} < 75\% \\ Y = 2, \text{if scale score} > 75\% \text{ above} \end{cases}$$

Table 2 shows that 86.85% HR professionals are highly aware, 1.99% are moderately aware and 11.17% are low aware about the adoption of HR 5.0 by private organizations.

Table 2

Awareness Index

Range	Decision	Frequency	Percentage Frequency
>75%	Highly Aware	350	86.85 %
50% to 75%	Moderately Aware	8	1.99 %
<50%	Less Aware	45	11.17%
	Total	403	100 %

Managerial Challenges of Adopting HR 5.0 in Private Organizations

HR professionals were asked about the managerial challenges to adopt HR 5.0 in private organizations. Their responses are mentioned in Table 3.

In a multi-response provided by 403 respondents, 47.89% considered organizational structure, 47.64% considered higher cost to implement system, 45.91% considered lack of proper policy framework, 40.2% considered lack of skilled manpower, 39.45% considered lack of infrastructure and talent management, 34.99% considered complexity and difficulty in adoption of HR 5.0, 33.75% considered training and workshop, 32.75% considered organizational culture, 31.27% considered lack of management support and adequate technology, 30.77% considered lack of data literacy and 26.3% considered cost of implementing programs as a managerial challenge to adopt HR 5.0 in private organizations.

Table 3

Managerial Challenges in Adoption of HR 5.0 in Private Organizations

Challenged faced by the respondents	Percentage
Organizational Structure	47.89%
Higher cost to implement system	47.64%
Lack of proper policy framework	45.91%
Lack of skilled manpower	40.2%
Lack of infrastructure and talent management	39.45%
Complexity and difficulty in adoption of HR 5.0	34.99%
Training and workshop	33.75%
Organizational Culture	32.75%
Lack of management support and adequate technology	31.27%
Lack of data literacy	30.77%
Cost of implementing programs	26.3%

Source: Field Survey,2023

Managerial Solutions on the Challenges to Adopt HR 5.0 in Private Organizations

This section deals with the perception of the HR professional towards managerial solution on problems while using HR 5.0 in private organizations of Kathmandu valley. Table 4 explains perception of the HR professionals towards managerial solution on problems while using HR 5.0 in private organizations of Kathmandu valley. Among 403 respondents, 55.33% respondents responded that managerial problems can be solved and 44.67% responded it

cannot be solved. Among 223 respondents who considered managerial problem can be solved, 12.21% regarded proper government policy, 9.40% regarded use of available technology, 18.30% responded employees' feedback, 18.10% responded awareness, 8.60% responded skilled manpower and adequate budget, 11.13% responded organizational structure and budget, 1.13% responded that increase investment in technology and 11.13% responded cost implementation and career development programs can solve such problems as a measure to solve such problems. Among the respondents who agreed that the managerial problem can be solved, 36% respondents believe that employees are responsible for that solution, followed by 51.61% responded for organization policy, 46.4% responded for board of directors and stakeholders, 44.42% HR manager and 42.687% competitors are responsible for that solution.

Table 4

Managerial Solution

Variables	Classification	Frequency	Percentage
Managerial	Yes	223	55.33%
Solution	No	180	44.67%
	Total	403	100%
Measures to	Proper government policy	27	12.21%
Managerial	Available of technology	21	9.40%
Solution	Employee's feedback	41	18.30%
	Awareness	40	18.10%
	Skilled manpower and adequate budget	19	8.60%
	Organizational structure and budget	25	11.13%
	Increase investment in technology	25	11.13%
	Career development programs	25	11.13%
	Total	223	100%
Responsible	Organizational policy	35	15.6%
person for	Board of Directors and stakeholders	46	20.4%
managerial	HR Manager	53	23.4%
solution	Competitors	46	20.6%
	Employees	45	20%

Source: Field Survey,2023

Inferential Analysis

To conduct Structural Equation Modeling (SEM), the first step is to test the normality of data. For the normality test, researcher used Web power to calculate Mardia's multivariate skewness and kurtosis (Wulandari et.al.2021).

Table 5

Normality Test

Measurement of Normality	Test Statistic	p-value
Skewness	48087.1006	.0000
Kurtosis	274.5561	.0000

Source: Output from PLS-SEM

The alternate hypothesis for Mardia's multivariate skewness and kurtosis is: Alternative Hypothesis (H_1): The data do not follow a multivariate normal distribution. Table 5 shows that the data is not normal ($p<.05$). Since, the data is not normal, Partial Least Squares Structural Equation Modeling (PLS-SEM) is used for data analysis. Variance inflation factor (VIF) is measured to conduct the collinearity test. If a VIF greater than 3.3 is present, there is the presence of collinearity, which is the common method biasness (Kock et.al. 2021).

Table 6 shows that there is no problem of collinearity since VIFs of all constructs are less than 3.3.

Table 6

Collinearity Test

Variables	VIF
HR 5.0	1.51
Competence	2.54
Digitalization	3.05
Management	3.14
Strategy	1.29

Source: Output from PLS-SEM

Measurement Model

Validity and reliability should be examined for measurement model assessment. To ensure validity and reliability of each first order construct, the values of loadings should be $\geq$ 0.5, the AVE should be $\geq$ 0.5, the CR should be $\geq$ 0.7 and Cronbach's Alpha should be $\geq$ 0.7.

Table 7

Test of Validity and Reliability

Items	Statements	Loadings	AVE	CR	Cronbach's Alpha
C4	Competence helps to proper use of devices, data and privacy.	0.846	0.53	0.898	0.868
C6	Competence helps to proper use of flexible classrooms and modern methods.	0.843			
C7	Competence helps to creatively use of digital technologies to solve the problem.	0.724			
C8	Training helps to develop new competencies.	0.877			
D2	HRM Professionals need to have knowledge on the IOT, AI, cloud computing, big data and VR to be applied in the recruitment of candidates.	0.862	0.56	0.896	0.862
D4	Digital transformation creates new ways of workers in the workplace.	0.81			
D5	Digital technologies have potential to transform HR 5.0	0.837			
D6	Technology is convenience.	0.874			
M1	Learning and training help employees to adopt the changing nature of job profiles to boost competency and productivity	0.775	0.56	0.881	0.837
M2	Proper management of recruitment and selection to attract competent talent in digital technologies.	0.892			

M3	Rewards and performance management has helped companies to provide remuneration based on productivity, performance, skill and competence.	0.802			
M6	Proper management helps to undertake the organizational capabilities.	0.87			
S1	Working with diversified people creates a productive environment.	0.817	0.57	0.567	0.891
S4	Organizational strategy helps in technological improvements.	0.855			
S5	Implementing innovation depends not only on people's skills, also on the organizational culture	0.859			
S8	Implementation on innovation depends on both people and organizational culture.	0.85			
HR1	Technology 5.0 facilitate data exchange among employees.	0.833	0.61	0.612	0.84
HR3	Technology 5.0 improve employment development and training.	0.699			
HR4	Technology 5.0 show employee's productivity information.	0.861			
HR5	Technology 5.0 reshape the quality of digital.	0.829			

Source: Output from PLS-SEM

Table 7 shows the measurement model for first construct. Factor loadings of all items in each construct ≥ 0.5. Similarly, Average Variance Extraction (AVE) of each construct ≥ 0.5. Furthermore, Composite Reliability (CR) of each construct ≥ 0.7. Hence, the convergent validity of each construct is assured. Similarly, Cronbach's Alpha ≥ 0.7 which shows that the reliability of all items under each construct is ascertained.

It is necessary to test the discriminant validity to examine the correlation between latent variables for which Fornell-Larcker and Cross Loadings are observed. The Fornell-Larcker criterion and the investigation of cross-loadings are the prevalent methods for assessing discriminant validity for variance-based structural equation modeling, such as partial least squares (Henseler et al., 2016).

Table 8

Fornell- Larcker Test

	Competence	Digitalization	HR	Management	Strategy
Competence	0.824				
Digitalization	0.671	0.846			
HR	0.719	0.726	0.808		
Management	0.677	0.835	0.793	0.836	
Strategy	0.69	0.766	0.831	0.836	0.846

Source: Output from PLS-SEM

Table 8 shows the Fornell-Larcker test to evaluate correlations of any other construct. At the diagonal of the table, the square root of AVE is shown. Result shows the square root of each AVE is higher than their subsequent inter-construct correlation, demonstrating good discriminant validity.

Cross Loading

Table 9 shows that items C4, C6, C7, C8 lie within competence construct. Similarly, items D2, D4, D5, D6 lie within digitalization construct. Furthermore, items HR1, HR3, HR4, HR5 lie within HR construct. Likewise, items M1, M2, M3, M6 lie within Management construct. Finally, items S1, S4, S5, S8 lie within strategy construct.

Table 9

Cross Loading

	Competence	Digitalization	HR	Management	Strategy
C4	0.846	0.575	0.606	0.573	0.585
C6	0.843	0.649	0.677	0.629	0.647
C7	0.724	0.351	0.435	0.332	0.343
C8	0.877	0.585	0.614	0.642	0.643
D2	0.565	0.862	0.636	0.666	0.644
D4	0.612	0.81	0.585	0.697	0.601
D5	0.447	0.837	0.608	0.794	0.697
D6	0.648	0.874	0.627	0.673	0.651
HR1	0.62	0.598	0.833	0.627	0.741
HR3	0.565	0.561	0.699	0.622	0.502
HR4	0.594	0.615	0.861	0.7	0.746
HR5	0.545	0.573	0.829	0.614	0.67
M1	0.617	0.634	0.598	0.775	0.592
M2	0.56	0.758	0.674	0.892	0.745
M3	0.595	0.696	0.714	0.802	0.714
M6	0.494	0.695	0.654	0.87	0.731
S1	0.58	0.621	0.652	0.617	0.817
S4	0.532	0.649	0.685	0.743	0.855
S5	0.64	0.657	0.751	0.69	0.859
S8	0.579	0.664	0.716	0.773	0.85

Source: Output from PLS-SEM

Hypothesis Test Results

Table 10 shows that there is significant impact of competence and strategy on Human Resource 5.0. On the other hand, there is no significant impact of digitalization and management on Human Resources 5.0.

**Table 10**

Summary of Hypothesis Testing

Hyp.	Path	Beta	Sample mean	Std. deviation	T stat.	P value	LL (2.5%)	UL (97.5%)	Result
H1	C ≥ HR	0.16	0.16	0.047	3.371	0.001	0.076	0.265	Supported
H2	D ≥ HR	-0.006	-0.006	0.054	0.119	0.905	-0.109	0.101	Not supported
H3	M≥HR	0.153	0.157	0.091	1.685	0.092	-0.015	0.341	Not supported
H4	S ≥HR	0.613	0.611	0.09	6.83	0	0.423	0.775	Supported

Source: Output from PLS-SEM

Figure 2 shows that M, D, S, C, HR 5.0 are five latent variables. In C, C4, C6, C7, C8 are observed variables and rest C1, C2, C3, C5 are removed due to errors. Thus, C explains 22.5% to HR 5.0. Likewise, D explains 55.6% to HR 5.0, M explains 3% to HR 5.0 and S explains 45.8% to HR 5.0. This indicates that there is relationship between dependent and independent variables.

Figure 2

Hypothesized PLS Path Model
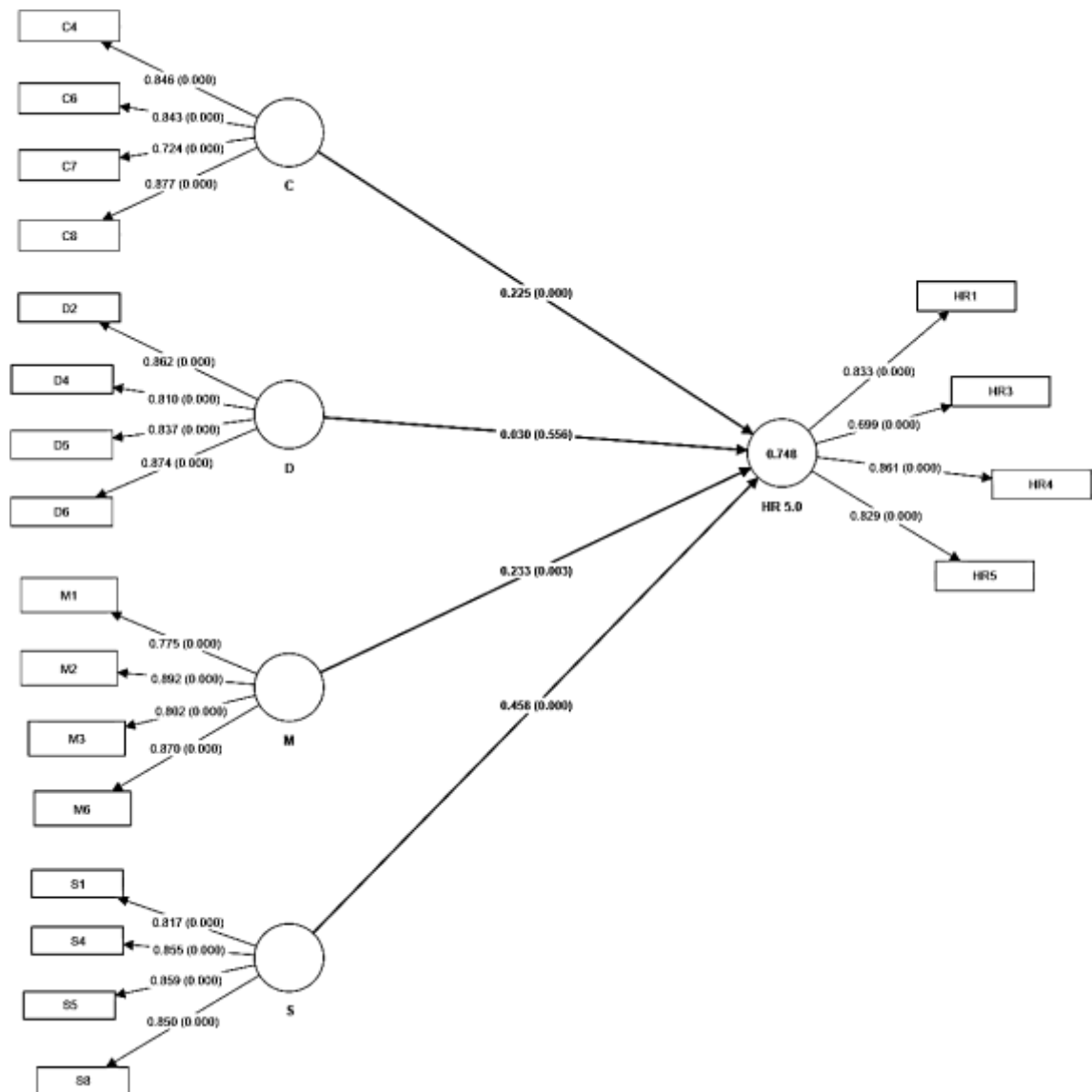
Source: Output from PLS - SEM

Discussion

It was found that there was significant impact of competence and strategy on HR 5.0. This result is consistent with (Orfanus et al.,2013). Orfanus et al. (2013) found that competence is needed to cope with job-related tasks and challenges for organizational success. It shows that competence and strategy are the significant factors in adoption of HR 5.0 in private organizations not only in Nepal but also in international researches. On the other hand, this study did not find any significant effect of digitalization and management on HR 5.0. This result is not consistent with the findings of Blount (2022) who found that telecommunicating, co-working spaces, virtual teams, freelancing and online talent platforms altogether transcend the physical boundaries of work place and redefine HR practices.

First, the limited effects of digitalization may indicate that private companies in the Kathmandu Valley lack organizational capacity, digital literacy, or technological infrastructure. Digital technologies might not have a major impact on HR transformation if there was insufficient investment in technology and employee development. If digital platforms were introduced without being properly incorporated into HR strategy, their influence might be insignificant.

Second, leadership and organizational transformation that are essential for HR 5.0 could not be properly represented in the management. Many private companies in Nepal may still rely heavily on traditional management practices, which may not be compatible with the innovative, flexible, and adaptable leadership need for HR 5.0. Thus, it shows a mismatch between current management practices and HR 5.0 requirements.

Therefore, the minor roles of digitalization and management indicate to a possible gap between managerial innovation, technological readiness, and strategic HR integration in developing country contexts, even though competence and strategic direction are confirmed as crucial enablers of HR 5.0 adoption.

Conclusion

This study explored the awareness, adoption factors, managerial challenges and solutions related to HR 5.0 within private organizations in the Kathmandu Valley. The results show that most HR professionals are aware of HR 5.0's adoption. Complex organizational structures, high implementation costs, a shortage of qualified personnel, poor infrastructure, a lack of opportunities for training and development, an unsupportive organizational culture, and a lack of data literacy are some of the major issues that hurdles the adoption of HR 5.0. This study suggests that in order to increase the adoption of HR 5.0, clear national policies that support the digital transformation of HR should be developed. Additionally, training programs that improve technological competencies should be encouraged, and public-private partnerships should be encouraged to improve infrastructure and data management

capabilities. HR 5.0 trends should be included in academic HR programs to guarantee that aspiring professionals have the information and abilities they need.

This study makes significant improvements to the HR industry in Nepal by providing information to private companies, government agencies, HR associations, and job portals. For more general findings, future studies should use probability sampling methods and widen their geographic focus outside the Kathmandu Valley. The findings would be more reliable and applicable throughout Nepal if the sample size was increased and included a wider range of industries and organizational types.

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