



ENHANCING HUMAN RESOURCE FUNCTIONS THROUGH DIGITAL INFORMATION MANAGEMENT SYSTEMS: THE MODERATING ROLE OF ORGANISATIONAL COMMITMENT

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ABSTRACT: *The adoption and implementation of digital information management systems is largely viewed as a means for promoting efficiency in organisations. Conversely, the realisation of the benefits derived from full utilisation of integrated digital information management systems still remain distant, pointing to lack of efficiency for some universities, particularly in the context of Sub-Saharan Africa. This lack of efficiency on the part of some universities suggests the need for accelerated incremental or adaptive digital innovations which are regarded as antecedents for the full utilisation of digital information management systems. Owing to this, the purpose of this study is to investigate the influence of digital information management systems as an antecedent for human resource functions in promoting efficiency. The hypotheses are tested using a sample size of 202 comprising senior managers, heads of sections and human resource personnel. The authors identify enterprise resource planning and human resource information systems as factors that bring efficiency to human resource functions. Organisational efficiency is associated with sound human resource functions driven by full utilisation of digital information management systems. Furthermore, the realisation of efficiency requires commitment of resources by the organisation. The empirical outcomes suggest that the digital information management system in place is predominantly used for recruitment, training and development processes while performance management processes are largely done manually. This paper contributes to the research literature on the significance of digital information management systems utilisation particularly from Sub-Saharan Africa. Also, the study provides a new empirical test using a data set of 202 decision makers such as senior managers and heads of sections.*

KEYWORDS: Digital Information Management Systems, Enterprise Resource Planning, Human Resource Information System, Human Resource Functions, Organisational Commitment.



INTRODUCTION

The advent of digital information management systems, particularly those utilising cloud computing-based services, have presented enormous changes to a number of sectors of human endeavours. This phenomenon has remained in force for the past two decades. Evident to this phenomenon is the transformation of human resource practices. The digital technologies era has revolutionised the way businesses are attracting, hiring and training employees, and reviewing employee performance (Nishad, 2017). By doing so, it has led to increased focus, in-depth analytics and overall business performance (DiRomualdo, El-Khoury & Girimonte, 2018). Embracing digital information management systems has enabled organisations to effectively manage their strategic intentions towards the realisation of stated mission and visions (Berber, Đorđević & Milanović, 2018). In essence, the field of management and human resource management has encountered numerous innovations resulting from digital technological advancements. Chytiri (2019) stated that, as a result of digital technologies, the contemporary period is referred to as the “digital age” or “industry 4.0 age.” This has led to employees being regarded as the key sources of competitive advantage in the 21st century.

To buttress the aforementioned statement, prior works of literature suggest that countries from the developed world adopted these digital technologies as early as the 1950’s in an endeavour to enhance human resources functions in managing human capital (Attatsitsey & Osei-Bonsu, 2021; Richards-Carpenter, 2012). Further, in view of the growing significance of digital technologies, empirical studies show that much emphasis was placed in the manufacturing industry (Baskaran *et al.*, 2020). However, the same cannot be said with regards to a number of universities from Sub-Saharan Africa. The environment is still characterised by partial embracing of digital technologies, whereas for some, they are characterised by ineffective utilisation of digital information management systems in place. In essence, a number of these institutions of higher learning, just like many in the public sector, appear not to be participating much in either incremental or adaptive digital innovations, and that has resulted in many inefficiencies bedevilling their operations (Ndlovu, Ochara & Martin, 2022). In fact, incremental or adaptive innovation will enable these institutions to utilise cloud computing based services thereby securing their information. This kind of benefit associated with cloud computing-based services still remains a dream for many due to lack of integrated digital information management utilisation. However, Shah, Michael and Chalu (2020) stated that in Tanzania, many organisations failed to implement e-HRM due to a number of debilitating challenges such as amongst others, lack of resources, limited knowledge and network challenges. Similarly, such failures can as well be traced to inefficiencies by universities towards fully embracing and utilising digital technologies for enhancing teaching and learning purposes (Kachepa & Batchaeva, 2008; Khumalo & Baloyi, 2018).

Irum and Yadav (2019) conceived that digital technologies enable efficient management of employees and result in human resources departments being more strategic rather than administrative. Particularly, human resources management predominantly focuses on activities such as hiring, training, development, rewarding, communication, involving employees, team work, and performance management (Beardwell & Thompson, 2017). The study advances that central to the delivery of efficient and innovative human resource functions is the full utilisation of digital information management systems which are deemed as conduits to the aforesaid functions (Flyverbom, Deibert & Matten, 2019). In essence, this analysis examines the influence of Enterprise Resource Planning (ERP) and Human Resource Information System (HRIS) on human resource functions towards realising organisational efficiency. Enterprise



Resource Planning is a software architecture that facilitates the flow of information towards data driven decision making (Strohmeier, 2020). Further, through the software, data is collected and organised from all organisational facets in an attempt to provide the management with insight into key performance indicators. Human Resource Information System is the software system that integrates human resource (HR) such as payroll administration, labour productivity, and information technology into a single database (Jayabalan, Makhbul, Selvanathan, Subramaniam & Nair, 2020). DiRomualdo, El-Khoury and Girimonte (2018) argued that contextual explanation is fundamental to any attempt to understand the nature of innovation presented by these digital information management systems in Sub-Saharan African countries, which is linked to the need to be more overt on how the human resource functions prevail.

RELATED LITERATURE

The extant works of literature affirm that the greater penetration and utilisation of digital technologies in the public sector institution such as universities over the past decade or so, has brought about innovative approaches such as e-recruitment, e-training, digital employee records, and e-performance assessments (Jalilian, Naghibizadeh, Meybodi, & Mohseni, 2021; Ndlovu, Ochara & Martin 2022). A fundamental goal of all these initiatives (Mahapa & Chirasha, 2012) is the improvement of access to quality information, thereby enabling faster access of information to expedite decision making whilst lowering costs associated with administrative services. However, prior works of literature indicate that despite having in place digital information management systems, they remain weak, and are largely underutilised disregarding the most significant functions of e-recruitment, e-performance management and e-training. Ironically, for some organisations, they are still resorting to the traditional manual methods in addressing the key human resource functions despite having invested in these integrated digital information management systems (Makwinja, 2018). These functions are regarded central in the field of human resource and ultimately towards organisational performance (Mahapa & Chirasha, 2012). However, there are growing calls for universities to fully embrace digital information management systems that embed crucial human resources functions for the purposes of planning, designing, tracking, monitoring and evaluating all forms of performance across the organisation to realise optimum organisational effectiveness and efficiency (Birkinshaw, 2018).

It remains undeniable that research on digital information management systems has been extensively done in developed countries and the same cannot be said with regards to some countries from developing nations (Ndlovu, Ochara & Martin, 2022). However, the controversy is that the context of digital information management systems in the context of Sub-Saharan Africa is substantially different from that of developed countries. For instance, there is generally less degree of acceptance and utilisation of new innovations, and this phenomenon becomes exacerbated by lack of organisational commitment with regards to resources. Unlike the private sector, most public sector institutions utilising digital information management systems focus on limited activities such as salary and benefits administration, advertising and employee personal record (Mahapa & Chirasha, 2012), thus neglecting the most crucial functions such as recruitment and selection, performance management, training and development, which are also regarded as significant factors towards improving overall organisational performance. Integrated digital information management systems may aid



human resource (HR) in automating and streamlining processes, minimising administration and record keeping, and providing management with real-time information for decision making (Baykal, 2019). In essence, that would lead to optimum realisation of organisational efficiency. Hosain, Arefin and Hossin (2020) conferred that digital information management systems contribute to the efficiency of control activities that boost operational effectiveness, timely and appropriate information exchange, building organisational databases, and accelerating decision-making.

However, this optimum realisation of organisational efficiency may not be adequately achieved in the absence of sound organisational commitment, hence individual employee's psychological attachment to the organisation. The concept of organisational commitment exhibited through employee efforts and the desire for achievement is touted instrumental in realising organisational efficiency (Gatignon & Xuereb, 1997; Khin & Ho, 2019). While digital information management systems and human capital management are strategic enablers of organisational effectiveness, the former is also a driver of the latter, making it imperative for organisations to show all various forms of support through resources and personnel towards enhancing human resources functions in this global networking era (Jalilian, Naghibizadeh Meybodi, & Mohseni, 2021). Nevertheless, managerial support plays a critical role in providing the right resources and fostering a supportive environment for the effective use of digital technologies, signalling the promotion of an organisational climate anchored on innovation. This narrative would cultivate the drive for achievement, sense of belonging and recognition among employees, thereby leading to organisational commitment. Further, a cocktail of measures, such as rapid adaptation to the new norms and organisational commitment through the alteration of behaviours from every employee and top management, become unavoidable for any institution embarking on a digital journey (Gupta, 2018). In view of this, lack of commitment has been regarded as a contributing factor towards less utilisation of integrated digital information management systems by the public sector in the Sub-Saharan Africa context. However, a special focus on the Sub-Saharan Africa context can add value in knowledge accumulation in the domain of digital technology and policy management research.

The following main hypotheses guided the analysis of the data:

H₁: e-Human resource functions positively influence organisational efficiency.

H₂: Organisational commitment positively moderates the relationship between e-Human resource functions and organisational efficiency.

Theoretical Underpinnings and Research Model

By reviewing literature on digital information management systems, organisational commitment and organisational efficiency, this research proposes to focus on the influence digital information management artefacts on organisational efficiency in institutions of higher learning from the Sub-Saharan Africa context. The digital information management system process focuses on fundamental human resource functions embedded in Human Resource Information System and Enterprise Resource Planning (Aswanth Kumar & Brijball Parumasur, 2013; Maxwell & Yadav, 2019). Such human resource functions include e-training, e-performance management and e-recruitment. In essence, e-human resource functions innovatively shape the processes and output of information towards organisational efficiency.



The outcome of the innovativeness process is codified and entrenched in the capabilities of the digital management information system, enabling managers to institute incremental or adaptive improvements developed for specific contexts towards enhanced utilisation. In the context of this study, the artefacts that are considered as the proxy to the digital information management system are e-human resource functions developed for enabling organisational efficiency. Particularly for these institutions of higher learning, the nature of digital information management systems require that managers experience the process and outcome through e-human resource functions. For instance, this thinking sees e-training, e-performance management, and e-recruitment as significant components for realising organisational efficiency. Consequently, from the context of digital information management system utilisation, human resource information system and enterprise resource planning are at the epicentre towards the realisation of the ambitions of organisational efficiency.

The fundamental theoretical underpinnings of digital information management system utilisation borrow from a number of theories, such as “Innovation Diffusion,” which have been widely used in describing the characteristics of the innovation that drive adoption decision. The original interpretation by Rogers (1995) focuses on the process through which innovations diffuse throughout society overtime. Digital information management systems are fundamental innovation activities that are critical in promoting organisational efficiency. Ironically, evidence from the extant literature indicate that institutions of higher learning in the context of Sub-Saharan Africa still lack the ability to fully utilise integrated digital information management systems—a scenario suggested to be contributing to their inefficiencies (Kachepa & Batchaeva, 2008; Mahapa & Chirasha, 2012; Khumalo & Baloyi, 2018). This is against the backdrop that these institutions of higher learning are regarded as streams from which knowledge is produced. The current thinking requires that these institutions of higher learning should fully leverage human resource functions through integrated digital information management systems towards organisational efficiency. The current study further advances that organisational efficiency through e-human resource functions can successfully be achieved through promoting organisational commitment (Al-Jabari & Ghazzawi, 2019). Lack of organisational commitment viewed through the lens of management support is touted as among the reasons leading to lack of digital information management systems utilisation (Noutsu Fobang, Fosso Wamba & Kala Kamdjou, 2019).

The current thinking fits well with the digital information management systems utilisation view, explicated through the technology adoption theories, hence the ‘Technology adoption model,’ which accepts a person’s attitude toward using technology is a product of two beliefs, including the perceived usefulness and simplicity of use. At the apex of technology adoption is the individual or group perceived behaviour about perceived usefulness of the technology. Digital information management systems are electronic tools that generate, store and process data electronically and have the power to transcend physical and, to some extent, financial borders while providing real-time data (Bakibinga-Gaswaga, Bakibinga, Bakibinga, & Bakibinga, 2020). Technology adoption model enhances our understanding of users’ reaction in the adoption of technology through attributes such as ease of use, attitude, and users’ perception (Richter & Naswall, 2019). Deslonde and Becerra (2018) suggested that the model aids in predicting the level of technology acceptance and usage, and whether they possess requisite resources that would promote effective utilisation of e-human resource functions. Consequently, using the ‘Technology adoption model’ as a framework, the current study contributes and expands our understanding of the elements that drive human behaviour. In the



context of the current study, organisational efficiency is evaluated in terms of functional and effective e-human resource functions regarded as proxies of digital information management systems. Thus, the conceptualisation adopted in the current study is that e-human resource functions moderated by organisational commitment influences organisational efficiency.

A core thrust of e-human resource functions is its focus on real time generation of information regarded as key to decision making, thereby promoting organisational efficiency. Murashkin and Tyrvaïnen (2019) stated that Ability, Motivation, Opportunity (AMO) theory enhances the understanding of how human resource practices affect employee performance. For instance, that relates to employee abilities, motivation, and opportunity to participate. The 'abilities' factor represents the scale of investment in HR activities aimed at improving employees' knowledge, skills, and abilities (Murashkin & Tyrvaïnen, 2019). According to Smelt (2017), 'ability' represents the HRM-related competences required to successfully apply human resource functions by employees at the functional level. In consensus, Tarlaci (2020) argued that it is crucial for organisations to continuously develop and improve their products or services, and individuals must be willing and able to innovate in order for a company to have a continuous flow of ideas.

In essence, organisational effectiveness can be realised through motivated employees who are constantly afforded an opportunity to display innovativeness with regards to work. Simply put, motivated employees are generally inclined to participate in new ideas formulation or improving existing processes (Stahlbrost & Bergvall-Kareborn, 2011; Tarlaci, 2020). However, the current study advances that employees need to be constantly encouraged and equipped with requisite skills in the face of a changing environment towards seeking out new opportunities in the workplace (Baines & Lightfoot, 2014; Murashkin & Tyrvaïnen, 2019). Motivated employees significantly contribute to improved performance, thereby leading to the adoption and subsequent utilisation of digital information management systems (Poutsma & Ligthart, 2017). The organisations should promote a culture that allows employees to experiment with new ideas while also capturing and sharing knowledge. The current study views the (AMO) theory as a vehicle towards enhancing our understanding of the aspects needed for the successful implementation of e-human resources functions. The AMO theory is thus embedded in the streams of technology adoption theories which is anchored on the perceptions and behaviours required for the full utilisation of digital information management systems.

Organisational commitment theory relates to the relationship employees have with the organisation, and that is frequently linked to a variety of characteristics, including the employee's belief in the organisation's goals and values, their attitude toward putting in effort for the firm, and their desire to stay with the company (Trofimov et al., 2017). Similarly, Mapuranga et al. (2021) stated that commitment refers to an employee's desire to stay with a company, readiness to put in effort on its behalf, and belief in and acknowledgement of the company's values and goals. Simply stated, organisational commitment entails the attachment employees have with the organisation, and that can be depicted by the desire to go the extra mile. However, central to the concept of organisational commitment are the two forms of affective and normative commitment deemed important in the realisation of organisational efficiency (Dinc, 2017).

Accordingly, affective commitment occurs when employees have a good emotional tie to their company (Al-Jabari & Ghazzawi, 2019). This could be exhibited by the amount of emotional devotion towards the realisation of organisational goals and that purely voluntary commitment, while normative commitment arises when individuals commit to an organisation not just out of a sense of obligation but also because they believe they must stay (Dinc, 2017). These feelings, according to Al-Jabari and Ghazzawi (2019), could be as a result of feeling obligated to the organisation as an expression of gratitude for the interest or investment the person has received. Affective and normative commitment have been demonstrated to support change initiatives among employees (Mapuranga et al., 2021).

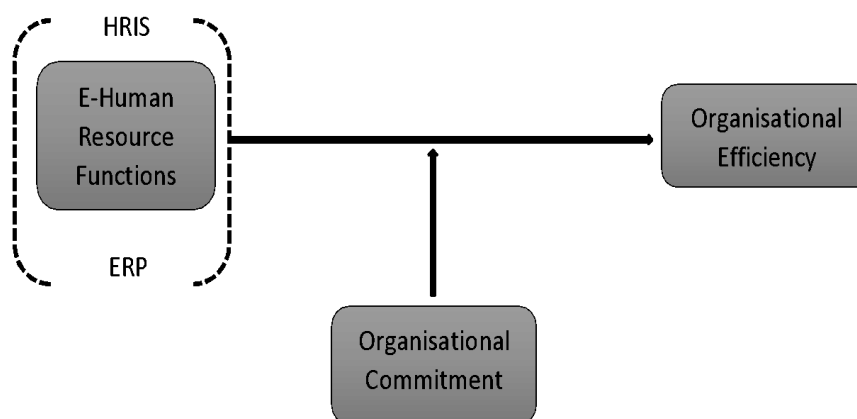


Figure 1: Research Framework

According to the technology adoption model and AMO theory, organisational efficiency can be realised when the questions of how digital technologies are perceived in terms of their usefulness and the levels of commitment by both employees and managers are addressed. To enable for empirical assessment, this study adopts a conceptualisation of technology utilisation by Richter and Naswall (2019) and Mapuranga et al. (2021) who hold that comprehending digital technologies and appropriate levels of behaviour in the form of commitment are required catalysts towards the promotion and utilisation of digital information management system. That will ultimately lead to organisational efficiency. The current study therefore advances that proxies to e-human resource functions moderated by organisational commitment may lead to organisational efficiency particularly in the context of institutions of higher learning from Sub-Saharan Africa.



RESEARCH METHODOLOGY

The study used the SPSS process. The SPSS process enabled the use of multivariate statistical techniques for factor analysis and regression analysis. Data was collected from 147 employees, comprising senior managers, heads of sections and human resource personnel. The selected elements of the sample were based on the view that managers are regarded as the decision makers, utilising information obtained through digital information management systems, yet human resource personnel are in a sense the 'custodians' and users.

Validity and reliability testing were done to assess the quality of constructs. The 202 self-completion questionnaires were distributed by the researchers to employees from four institutions of higher learning in (University of Zimbabwe, Lupane State University, Manicaland State University of Applied Sciences and Gwanda State University). From a total of 202 distributed questionnaires, 147 were correctly completed and returned, usable for data analysis, thus representing a response rate of 73 percent. The number of respondents who satisfactorily completed the questionnaires was drawn from a sample size of 202, and this is regarded as appropriate for making generalisations about the entire population. The SPSS process was used to analyse data and to test the proposed hypotheses.

RESULTS

In the sections, the descriptive and inferential analysis of the data is undertaken and presented. Prior to data collection, a five-point Likert scaled questionnaire was developed. For each questionnaire distributed, the response rate is listed and examined. The thrust of this study was to assess the influence of the digital information management system towards enhancing human resource functions moderated by organisational commitment. Data was collected from a sample size of 202 which consisted of employees in the Senior Management, Heads of Departments or Sections and Human Resources personnel. The questionnaire's main domains are e-training and development, e-performance management, e-recruitment and selection measuring digital information management systems, and organisational efficiency. Organisational commitment was measured through affective commitment and normative commitment. The questionnaire contained a total of 23 items for analysis. The questionnaire was assessed for internal and external consistency. This was achieved through Cronbach's Alpha, composite reliability, average variance explained and factor loadings. The adequacy of the exploratory factor analysis (EFA) was performed through the examination of Bartlett's test and Kaiser-Meyer-Olkin (KMO) measure.

Demographic Analysis

Demographics distribution of the sample of 179 is presented in the Table 1 below. The study targeted 179 respondents chosen based on their roles within the institutions. The researcher distributed 179 questionnaires and 132 were completed and returned, yielding a response rate of 73.7%. The majority of the respondents were males as shown by the rate of 74% and females 26%. This shows that more males were at the Senior Management and Heads of Departments/Sections positions in these institutions. In view of this, it can be inferred that males predominantly belonged to the economically active population.



Most respondents were in the age group of over 45 years, comprising the highest number of employees with a total number of participants of 92 (70%) while the age range 35-44 years had 39 participants representing 29%. Only 1 participant representing 1% indicated that they were between the age group of 25-34 years and there were no participants in the age ranges of 18-24 years. This shows that the majority of the respondents in the category of Senior Management and Heads of Departments/Sections are above 45 years. From the results obtained, 68% of the participants were Master's degree holders, with 27% of the respondents being PhD holders. Lastly, only 5% of the participants indicated that they were holders of undergraduate degrees. The statistics reveal that the participants are literate, and as such it can be inferred that they are knowledgeable with regards to digital information management systems. Regarding the length of service, the data obtained revealed that the majority of the respondents (40%) have been with their institutions for over 10 years, whereas 28% indicated that they have been working in their institutions for a period of between 6-9 years. 32% indicated that they had been in their institutions for a period of between 0-5 years. The results show that most of the respondents had lengthy services in their present institutions. In view of these results, it can be inferred that the length of service may influence the extent to which an individual comprehends the systems utilised in their institutions.

Table 1: Demographic Characteristics

Variable	Description	Percentage %
Gender	Male	74
	Female	26
Age (Years)	18-24 years	0
	25-34 years	1
	35-44 years	29
	45 + years	70
Education	Undergraduate degree	5
	Master's degree	68
	PhD	27
Length of service	0-5 years	40
	6-9 years	28
	10 + years	32

Measurement Model: Reliability and Validity

A reliability test is used to measure the consistency in measurement of survey question items. It measures the internal consistency of the item in a scale. It shows the extent of the relationship of the items in the questions. Pallant (2010) and Bryman et al. (2011) stated that reliability coefficients greater than 0.7 are deemed adequate. As presented in Table 2, the study satisfactorily met the minimum requirements for internal consistency.

**Table 2: Reliability Test**

Variables	Cronbach's Alpha	Number of items
Human Resource Functions		
e-Recruitment and Selection	0.776	5
e-Performance Management	0.703	5
e-Training and Development	0.799	5
Organisational Commitment		
Affective Commitment	0.783	4
Normative Commitment	0.772	4
Organisational Efficiency		
Organisational Effectiveness	0.792	3

Table 3 presents a positive relationship, and statistically significant p-values of 0.343 and 0.000 respectively, meaning that there is a significant relationship between e-recruitment and e-performance. There was an insignificant relationship between the constructs of e-recruitment and e-training, whereas e-training had a weak positive relationship with the construct of e-performance. All e-human resource function constructs of e-training, e-performance and e-recruitment had no statistical significant relationship with organisational commitment constructs of affective and normative. Normative commitment had a positive relationship with an outcome variable of organisational efficiency which was also statistically significant. The finding supports the study done by Meyer (2017) who argued that normative committed employees display a great level of dedication towards the realisation of organisational efficiency. Further, the results indicate that there is a positive relationship between affective organisational commitment and normative organisational commitment as seen by some by a correlation coefficient of 0.495 and a p-value of 0.000 which is statistically significant.

**Table 3: Correlations**

Constructs		E-Recruitment & Selection	E-Performance Management	E-Training & Development	Affective Organisational Commitment	Normative Organisational Commitment	Organisational Effectiveness
E-Recruitment & Selection	Coefficient	1.000	0.018	0.343	0.001	-0.038	-0.052
	P-value		0.838	0.000	0.987	0.669	0.555
E-Performance Management	Coefficient	0.343	1.000	0.158	-0.225	-0.093	-0.131
	P-value	0.000		0.072	0.010	0.288	0.136
E-Training & Development	Coefficient	0.018	0.158	1.000	-0.092	-0.073	-0.055
	P-value	0.838	0.072		0.299	0.412	0.534
Affective Organisational Commitment	Coefficient	0.001	0.092	-0.225	1.000	0.495	0.887
	P-value	0.987	0.299	0.010		0.000	0.000
Normative Organisational Commitment	Coefficient	-0.038	-0.073	-0.093	0.495	1.000	0.506
	P-value	0.669	0.412	0.288	0.000		0.000
Organisational Effectiveness	Coefficient	-0.052	-0.055	-0.131	-0.887	0.506	1.000
	P-value	0.555	0.534	0.136	0.000	0.000	

Extraction Process

E-recruitment and Selection

Table 3 provides a KMO measure for e-recruitment and selection showing a KMO measure of 0.501, which is higher than the recommended value of 0.50 and a significant Bartlett's test ($p < 0.05$) (Pallant, 2010). These findings suggested that the current study's data were suitable for the factor analysis process.

Table 4: KMO and Bartlett's Test for e-recruitment and Selection

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.501
Bartlett's Test of Approx. Chi-Square		91.705
Sphericity Df		10
	Sig.	.000

Table 4 below explains the total variance that can be used to reduce the number of measurement items to manageable amounts for statistical analysis. The e-recruitment and selection results provide strong evidence that e-recruitment and selection is a variable that can specifically



assess the independent variable of the current investigation. As shown in the table below, one factor for e-recruitment and selection had Eigenvalues greater than 1, indicative of approximately 64 percent of the variance in the collected data.

Table 5: Total Variance Explained for e-recruitment and Selection

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.868	37.359	37.359	1.868	37.359	37.359
2	1.363	27.259	64.618	1.363	27.259	64.618
3	.989	19.788	84.406			
4	.626	12.516	96.921			
5	.154	3.079	100.000			

Extraction Method: Principal Component Analysis.

E-performance Management

Table 6 below presents a KMO measure of 0.565 for e-performance management which is higher than the recommended value of 0.50, and a significant Bartlett's test ($p < 0.05$) (Pallant, 2010). These findings suggested that the current study's data were suitable for the factor analysis process.

Table 6: KMO and Bartlett's Test for e-performance Management

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.565
Bartlett's Test of Sphericity	Approx. Chi-Square	177.736
	Df	10
	Sig.	.000

Table 7 below shows the total variance explained, which is used to reduce measurement items into manageable numbers for additional statistical analysis. Two components for e-performance management have Eigenvalues larger than 1, which corresponds to about 43% and 69% of the collected data's variance, as shown in the Table 6 below. These findings suggested that the current study's data were suitable for the factor analysis process.

**Table 7: Total Variance Explained for e-performance Management**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.159	43.175	43.175	2.159	43.175	43.175
2	1.293	25.857	69.033	1.293	25.857	69.033
3	.849	16.972	86.004			
4	.487	9.742	95.746			
5	.213	4.254	100.000			

Extraction Method: Principal Component Analysis.

E-Training and Development

Table 8 presents a KMO measure 0.515 for e-training and development which is higher than the recommended value of 0.50, and a significant Bartlett's test ($p < 0.05$) (Pallant, 2010). These findings suggested that the current study's data were suitable for the factor analysis process.

Table 8: KMO and Bartlett's Test for e-training and Development

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Adequacy Measure	of Sampling	.515
Bartlett's Test of Sphericity	Approx. Chi-Square	316.684
	Df	10
	Sig.	.000

Table 9 shows the total variance explained, which is used to reduce measurement items into manageable numbers for additional statistical analysis. Two components for organisational commitment have Eigenvalues larger than 1, which is cumulatively approximately 79% of the collected data's variance, as shown in the table. These findings suggested that the current study's data were suitable for the factor analysis process.

Table 9: Total Variance Explained e-training and Development

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.804	56.085	56.085	2.804	56.085	56.085
2	1.006	20.129	76.214	1.006	20.129	76.214
3	.675	13.510	89.724			
4	.403	8.063	97.787			
5	.111	2.213	100.000			

Extraction Method: Principal Component Analysis.

**Table 10: Exploratory Factor Analysis**

Construct	Items	Factor loadings
e-Recruitment and Selection	RS1	.689
	RS2	.623
	RS3	.718
	RS4	.890
	RS5	.913
e-Performance Management	PM1	.692
	PM2	.738
	PM3	.663
	PM4	.870
	PM5	.814
e-Training and Development	TD1	.771
	TD2	.875
	TD3	.828
	TD4	.739
	TD5	.870
Affective Commitment	AOC1	.950
	AOC2	.626
	AOC3	.769
	AOC4	.758
Normative Commitment	NOC1	.865
	NOC2	.953
	NOC3	.723
	NOC4	.758
Organisational Effectiveness	OE1	.750
	OE2	.636
	OE3	.730

Convergent and discriminant validity tests were assessed using exploratory factor analysis. If the Kaiser-Meyer-Olkin test (KMO) sampling adequacy value is at least 0.5 and the Bartlett's test of sphericity result is statistically significant (when $p < 0.05$), then the dataset satisfies the requirements for exploratory factor analysis (EFA) as presented in Table 3 (Field, 2005). Further, if the results of Bartlett's test of sphericity are significant ($p < 0.05$), it therefore confirms adequate correlation between the variables, allowing for further statistical investigation. Convergent validity was confirmed as variables inside a single factor are substantially correlated and factor loadings are at least 0.5. Further, discriminant validity is confirmed when variables significantly load on one component (Field, 2005). Convergent validity conditions are satisfactory if variables within a single factor are highly correlated and factor loadings are at least 0.5. Lastly, discriminant validity is satisfactory if variables load significantly on one factor. Variables should relate stronger with their own factor (Field, 2005). These results in Table 9 indicate that the factor analysis procedure was appropriate for this data.



SPSS-Process Results

Moderation Analysis

Regression analysis was used to test if organisational commitment moderates the relationship between e-human resource functions and organisational effectiveness. According to Hayes and Rockwood (2019), the moderation test should meet three conditions in the regression analyses: For a moderation effect to be confirmed, the predictor X (e-human resource functions) must predict M (organisational commitment), and the M (moderator) must predict the outcome Y (organisational effectiveness). For full moderation to be confirmed, the predictor variable must not have a significant predictive effect on the outcome variable in the presence of the moderator variable. Where the predictor variable is still significant, then partial moderation is confirmed.

Table 11: Moderating Role of Organisational Commitment between e-recruitment and Selection and Organisational Efficiency

Organisational Efficiency							
Model summary	R	R-sq	MSE	F	df 1	df 2	P
	.9465	.8959	.0280	367.1623	3.0000	128.0000	.0000
	coeff.	se	t	p	LLCI	ULCI	
Constant	.4937	.2514	1.9636	.0517	-.0038	.9912	
e-Recruitment	-.0112	.0052	-2.1546	.0331	-.0215	-.0009	
Affective commitment	.6143	.0236	26.0318	.0000	.5676	.6610	
Normative commitment	.0284	.0188	1.5110	.1332	-.0088	.0656	

Regression analysis was used to test the hypothesis that organisational commitment moderates the relationship between e-recruitment and selection and organisational efficiency. The findings also present a statistically significant moderating effect of organisational commitment on e-recruitment and selection and organisational efficiency with a factor of 367.1623 which is statistically significant with a p-value of 0.0000 at 95% confidence. The model has an R-sq of 0.8959 which means that 89% of the variation on organisational efficiency is explained by the predictor variable e-recruitment and selection.

Table 12: Moderating Role of Organisational Commitment between e-performance Management and Organisational Efficiency

Organisational Efficiency							
Model summary	R	R-sq	MSE	F	df 1	df 2	P
	.9457	.8944	.0288	355.5607	3.0000	126.0000	.0000
	coeff.	se	t	p	LLCI	ULCI	
Constant	.1463	.2635	.5552	.5798	-.3751	.6677	
e-Performance	.0082	.0051	1.6239	.1069	-.0018	.0182	
Affective commitment	.6137	.0241	25.4572	.0000	.5660	.6614	
Normative commitment	.0315	.0194	1.6288	.1058	-.0068	.0699	



Regression analysis was used to test the hypothesis that organisational commitment moderates the relationship between e-performance management and organisational efficiency. The findings also present a statistically significant moderating effect of organisational commitment on e-performance and organisational efficiency with a factor of 355.5607, which is statistically significant with a p-value of 0.0000 at 95% confidence. The model has an R-sq of 0.8944 which means that 89% of the variation on organisational efficiency is explained by the predictor (e-performance management).

Table 13: Moderating Role of Organisational Commitment between e-training and Development and Organisational Efficiency

Organisational Efficiency							
Model summary	R	R-sq	MSE	F	df 1	df 2	P
	.9456	.8942	.0284	360.6824	3.0000	128.0000	.0000
	coeff.	se	t	p	LLCI	ULCI	
Constant	-.0260	.3226	-.0805	.9360	-.6644	.6124	
e-Training	.0125	.0078	1.5954	.1131	-.0030	.0279	
Affective commitment	.6198	.0243	25.4764	.0000	.5716	.6679	
Normative commitment	.0295	.0189	1.5592	.1214	-.0079	.0670	

Regression analysis was used to test the hypothesis that organisational commitment moderates the relationship between e-training and development and organisational efficiency. The findings also present a statistically significant moderating effect of organisational commitment on e-training and development and organisational efficiency with a factor of 360.6824, which is statistically significant with a p-value of 0.0000 at 95% confidence. The model has R-sq of 0.8942 which means that 89% of the variation on organisational efficiency is explained by the predictor variable (e-training and development).

DISCUSSION AND IMPLICATIONS

Revisiting Statement of Hypotheses

H₁: e-Human resource functions positively influence Organisational efficiency.

The results indicate that e-recruitment and selection had a significant predictive effect on organisational efficiency. The relationship was statistically significant ($B = 0.0112$; $p = 0.000$). The results corroborate the findings by Skagne (2020) who noted that digital information management systems (e-recruitment and selection) improve the flow of information throughout an organisation in correct format and at the right time. The findings are also consistent with the findings by Umar, Yammama and Shaibu (2020) who established that artificial intelligence speeds up laborious processes associated with filling many job vacancies in a short period of



time. The outcome is congruent with the findings by Mangipudi and Vaidya (2019) who established that while HR departments can rely on digital technology such as artificial intelligence systems to ask questions during interviews, they cannot rely on them to assess candidates' personalities, motivation, or soft skills and negotiation with the candidate.

The results indicate that e-performance management had a significant predictive effect on organisational efficiency. The relationship was statistically significant ($B = 0.0082$; $p = 0.000$). The results support findings by Nawaz and Gomes (2019) who argued that digital information management system significantly improves decision making, particularly e-performance management and eliminates unnecessary delays in performance measurement and management by using real-time data. The results are also consistent with findings by Sowmya and PrabhaDevi (2019) who found that digital performance management systems provide more transparency information, speed and reduction in cost associated with traditional methods of performance management. The findings from the current study indicate that e-training and development had a significant predictive effect on organisational efficiency. The association was statistically significant ($B = 0.0125$; $p = 0.0000$). The results validate findings by Umar, Yammama and Shaibu (2020) who stated that the digital information management system in training and development has a positive impact through cost reduction and flexibility of training programmes. In consensus, Sungwa (2021) argued that through the digital information management system, organisations stand to benefit through reduced training costs across the board, including instruction material, travel and administration associated with traditional training methods. E-training provides flexibility which allows participants to select the most convenient venue and schedule.

H₂: Organisational commitment positively moderates the relationship between e-Human resource functions and Organisational efficiency.

Regression analysis was used to investigate the hypothesis that affective commitment moderates the relationship between e-recruitment and selection, and organisational efficiency. Results indicated that e-recruitment and selection had a statistically significant predictive effect on organisational efficiency in the presence of a moderator, affective commitment $B = .6143$, $SE = .0236$, $p = 0.0000$, and that confirms full moderation effect. The results confirm findings by Bondarouk, Parry and Furtmueller (2017) who found that organisational commitment can enhance organisational efficiency. However, e-recruitment and selection had no predictive effect on organisational effectiveness in the presence of a moderator, normative commitment $B = .0284$, $SE = .0188$, $p = 0.1332$. The results indicate that there is no moderation effect.

Regression analysis was used to investigate the hypothesis that affective commitment moderates the relationship between e-performance management and organisational efficiency. Results indicated that e-performance management had a statistically significant predictive effect on organisational efficiency in the presence of a moderator, affective commitment $B = .6137$, $SE = .0241$, $p = 0.0000$, and that confirms full moderation effect. The results confirm findings by Moussa and Arbi (2020) who argued that committed staff strive to incorporate new innovative ways towards improving organisational performance. However, e-performance management had no predictive effect on organisational efficiency in the presence of a moderator, normative commitment $B = .0315$, $SE = .0194$, $p = 0.1058$. The results indicate that there is no moderation effect. Another regression analysis was used to investigate the



hypothesis that affective commitment moderates the relationship between e-training and development, and organisational efficiency. Results indicated that e-training and development had a statistically significant predictive effect on organisational efficiency in the presence of a moderator, affective commitment $B = .6198$, $SE = .0243$, $p = 0.0000$, and that confirms full moderation effect. The results confirm findings by Moussa and Arbi (2020) who argued that various forms of support from the management are fundamental in promoting organisational performance. However, e-training and development had no predictive effect on organisational efficiency in the presence of a moderator, normative commitment $B = .0295$, $SE = .0189$, $p = 0.1214$. The results indicate that there is no moderation effect.

CONCLUSIONS

From the research findings, it could be concluded that digital information management systems enhanced the human resource functions which is crucial for attaining organisational efficiency. It was also revealed that organisational commitment plays a significant role in the successful implementation and utilisation of digital information management system in organisations. The results of this study offer a new perspective relating to the role of organisational commitment towards enhancing organisational efficiency through digital information management systems. However, results from the current study revealed that not all forms of organisational commitment promote organisational efficiency. For instance, of the two forms of organisational commitment tested, normative commitment had an insignificant effect towards enhancing organisational efficiency. Specifically, this moderated test presented in this study enhances our understanding about how and under what circumstances e-human resource functions can influence organisational efficiency.

Having digital information management systems alone is inadequate, these systems should be tailor made to meet the needs of various stakeholders, hence the need for the institutions of higher learning to constantly embrace them such that they realise the benefits associated to using e-human resource functions towards organisational efficiency. Further, these institutions need to embrace the ever changing digital trends; digital innovations brought about digital information management systems and the general managerial support to employees. Future studies may consider exploring other forms of organisational commitment significant in promoting e-human resource functions towards organisational efficiency. This may as well include exploring other possible strategies that may be employed towards accelerated promotion and utilisation of innovative e-human resource functions for organisational efficiency.

Generally, digital information management systems enable data driven decision making and break the boundaries between employees within the same location or different locations as sharing of information is timely and standardised. There is better control and management of the organisation's information through the use of digital information management systems. In essence, digital information management systems play a critical role in enhancing the efficiency and performance of the HR department by allowing HR professionals to become strategic partners in achieving organisational goals (Al-Harazneh & Sila, 2021).



REFERENCES

- Al-Harazneh, Y.M. and Sila, I. (2021) 'The impact of E-HRM usage on HRM effectiveness: Highlighting the roles of top management support, HR professionals, and line managers', *Journal of Global Information Management*, 29(2), pp. 148–165. doi:10.4018/JGIM.2021030107.
- Al-Jabari, B. and Ghazzawi, I. (2019) 'Organizational Commitment: A Review of the Conceptual and Empirical Literature and a Research Agenda', *International Leadership Journal "ILJ"*, 11(1), pp. 1–29.
- Aswanth Kumar, N. and Brijball Parumasur, S. (2013) 'The impact of HRIS on organizational efficiency: Random or integrated and holistic?', *Corporate Ownership and Control*, 11(1 G), pp. 567–575.
- Attatsitsey, M. and Osei-Bonsu, N. (2021) Assessing the impact of information technology on human resource practices: evidence from organisations in Ghana. *International Journal of Information Technology and Management*, 20(1-2), pp.5-20.
- Baines, T. and Lightfoot, H.W. (2014) Servitization of the manufacturing firm: Exploring the operations practices and technologies that deliver advanced services. *International Journal of Operations & Production Management*.
- Bakibinga-Gaswaga, E., Bakibinga, S., Bakibinga, D.B.M. and Bakibinga, P. (2020) Digital technologies in the COVID-19 responses in sub-Saharan Africa: policies, problems and promises. *The Pan African Medical Journal*, 35(Suppl 2).
- Baskaran, S. et al. (2020) 'Technology Adoption and Employee's Job Performance: An Empirical Investigation', *International Journal of Academic Research in Economics and Management Sciences*, 9(1). doi:10.6007/ijarems/v9-i1/7443.
- Baykal, E. (2019) 'Digitalization of human resources: E-HR', in *Tools and Techniques for Implementing International E-Trading Tactics for Competitive Advantage*. IGI Global, pp. 268–286. doi:10.4018/978-1-7998-0035-4.ch013.
- Beardwell, J., Thompson, A. (2017) Human resource management: A contemporary approach.
- Berber, N., Đorđević, B. and Milanović, S. (2018) *Electronic Human Resource Management (e-HRM): A New Concept for Digital Age*, STRATEGIC MANAGEMENT.
- Birkinshaw, J. (2018) 'How is technological change affecting the nature of the corporation?', *Journal of the British Academy*, 6(s1), pp. 185–214. doi:10.5871/jba/006s1.185.
- Bondarouk, T., Parry, E. and Furtmueller, E. (2017) 'Electronic HRM: four decades of research on adoption and consequences', *International Journal of Human Resource Management*, 28(1), pp. 98–131. doi:10.1080/09585192.2016.1245672.
- Bryman, A., Bell, E., Mills, A.J. and Yue, A.R.(2011) 'Business Research Methods', *Oxford University Press*, p. 220. doi:0195430298.
- Chytiri, A.-P. (2019) *Human Resource Managers' Role in the Digital Era The Relationship Of Human Resource Management And Organizational Performance During And After An Economic Deep Examination View project Human Resource Managers' Role in the Digital Era*. Available at: <http://spoudai.unipi.gr>.
- Deslonde, V. and Becerra, M. (2018) 'The Technology Acceptance Model (TAM): Exploring School Counselors' Acceptance and Use of Naviance', *The Professional Counselor*, 8(4), pp. 369–382. doi:10.15241/vd.8.4.369.
- Dinc, M.S. (2017) Organisational commitment components and job performance: Mediating role of job satisfaction. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 11(3), pp.773-789.



- DiRomualdo, A., El-Khoury, D. and Girimonte, F. (2018) HR in the digital age: How digital technology will change HR's organization structure, processes and roles. *Strategic HR Review*.
- Field, A.P. (2005) *Discovering statistics using SPSS: and sex and drugs and rock 'n' roll (2nd Edition)*.
- Flyverbom, M., Deibert, R. and Matten, D. (2019) 'The Governance of Digital Technology, Big Data, and the Internet: New Roles and Responsibilities for Business', *Business and Society*, 58(1), pp. 3–19. doi:10.1177/0007650317727540.
- Gatignon, H. and Xuereb, J.M., (1997) Strategic orientation of the firm and new product performance. *Journal of marketing research*, 34(1), pp.77-90.
- Gupta, S. (2018) *Organisational Barriers to Digital Transformation KTH Industrial Engineering and Management Industrial Management SE-100 44 STOCKHOLM*.
- Hayes, A.F. and Rockwood, N.J. (2020) Conditional process analysis: Concepts, computation, and advances in the modeling of the contingencies of mechanisms. *American Behavioral Scientist*, 64(1), pp.19-54.
- Hosain, M.S., Arefin, A.H.M.M. and Hossin, M.A. (2020) 'The Role of Human Resource Information System on Operational Efficiency: Evidence from MNCs Operating in Bangladesh', *Asian Journal of Economics, Business and Accounting*, 18(2), pp. 29–47. doi:10.9734/ajeba/2020/v18i230279.
- Irum, A. and Yadav, R.S. (2019) "Human resource information systems: a strategic contribution to HRM", *Strategic Direction*, Vol. 35 No. 10.
- Jalilian, N., Naghibizadeh Meybodi, S.M. and Mohseni, S.M.A., (2021) Designing the path of empowering universities to create a role in the innovation ecosystem using an integrated approach of content analysis and fuzzy cognition mapping. *Journal of Entrepreneurship Development*, 14(2), pp.201-220.
- Jayabalan, Z. K. M. Makhbul, M. Selvanathan, M. Subramaniam, S. Nair, I.P. (2020) 'Article ID : IJM_11_10_031 Private Education Industry HRIS CONTRIBUTIONS AND IMPACT ON', *International Journal of Management (IJM)*, Volume 11(10), p. 12. doi:10.34218/IJM.11.10.2020.031.
- Kachepa, A. and Batchaeva, O. (2008) 'Using Information and Communication Technology at the University of Zimbabwe : challenges , successes and recommendations', *Journal of Language and Communication*, (June), pp. 126–146.
- Khin, S. and Ho, T.C.F. (2019) 'Digital technology, digital capability and organizational performance: A mediating role of digital innovation', *International Journal of Innovation Science*, 11(2), pp. 177–195. doi:10.1108/IJIS-08-2018-0083.
- Khumalo, N.B. and Baloyi, C. (2018) 'The extent to which universities have embraced technology in service delivery: A comparative study of NUST (Zimbabwe) and university of venda (RSA)', *World Journal on Educational Technology: Current Issues*, 10(4), pp. 182–190. doi:10.18844/wjet.v10i4.4081.
- Mahapa, M. and Chirasha, V. (2012) 'An Assessment on the Uptake Level of a Fully Integrated Human Resource Information System (HRIS): A Case Study of Midlands State University', *Public Administration Research*, 1(1), pp. 121–127. doi:10.5539/par.v1n1p121.
- Makwinja, F. (2018) 'A Comparative Analysis of the Impact of Information Technology on Human Capital Management in Parastatals in Zimbabwe: A Case Study of ZETDC, ZIMRA and TelOne', (July).



- Mangipudi, M.R. and Vaidya, R. (2019) 'A Study of Digitalization in HRM and its Effectiveness in Execution of HR Strategies and Policies A Study of Digitalization in HRM and its Effectiveness in Execution of HR Strategies and Policies', (January), pp. 4220–4223. doi:10.29042/2018-4220-4222.
- Mapuranga, M., Maziriri, E.T., Rukuni, T.F. and Lose, T., (2021) Employee Organisational Commitment and the Mediating Role of Work Locus of Control and Employee Job Satisfaction: The Perspective of SME Workers. *Journal of Risk and Financial Management*, 14(7), p.306.
- Maxwell, S. and Yadav, M.S. (2019) 'Effectiveness of HRIS on Organisational Performance', *International Journal of Research in Business Studies*, 4(1), p. 173.
- Moussa, N.B. and El Arbi, R., (2020) The impact of Human Resources Information Systems on individual innovation capability in Tunisian companies: The moderating role of affective commitment. *European Research on Management and Business Economics*, 26(1), pp.18-25.
- Murashkin, M. and Tyrväinen, J., (2019) The black box of human resources: The effect of high performance work systems on organisational commitment, work engagement and intention to leave.
- Nawaz, N. and Gomes, A.M. (2019) 'Artificial Intelligence Chatbots are New Recruiters', 10(9), pp. 1–5.
- Ndlovu, N., Ochara, N. and Martin, R. (2022) 'A Systematic Review of Organisational Ambidexterity and Public Value in Local Government'.
- Nishad, N. (2017) 'A Comprehensive Literature Review of the Digital HR Research Filed', *Information and Knowledge Management*, 7(4), pp. 15–20. Available at: www.iiste.org.
- Noutsu Fobang, A., Fosso Wamba, S. and Kala Kamdjoug, J.R., 2019. Exploring factors affecting the adoption of HRIS in SMEs in a developing country: Evidence from Cameroon. In *ICT for a Better Life and a Better World* (pp. 281-295). Springer, Cham.
- Pallant, J. (2010) *SPSS Survival Manual: A Step by Step Guide to Data Analysis using SPSS for Windows*. 4th edn. Open University Press.
- Poutsma, E., Ligthart, P.E. and Kaarsemaker, E.C., (2017) Employee ownership and high-performance work systems in context. In *Sharing in the Company*. Emerald Publishing Limited.
- Richter, A. and Näswall, K., (2019) Job insecurity and trust: Uncovering a mechanism linking job insecurity to well-being. *Work & Stress*, 33(1), pp.22-40.
- Rogers, E.M. (1995) 'Diffusion of Innovations: Modifications of a Model for Telecommunications', *Die Diffusion von Innovationen in der Telekommunikation*, pp. 25–38. doi:10.1007/978-3-642-79868-9_2.
- Shah, N., Michael, F. and Chalu, H. (2020) 'Conceptualizing Challenges to Electronic Human Resource Management (e-HRM) Adoption: A case of Small and Medium Enterprises (SMEs) in Tanzania.', *Asian Journal of Business and Management*, 8(4), pp. 37–48. doi:10.24203/ajbm.v8i4.6066.
- Skagne, F. (2020) 'Degree project MIS's impact on organisations'effectiveness A comparative study on two different organisations.'
- Smelt, K. (2017) *Resolving the AMO Confusion: Results of a qualitative study into HRM implementation* (Master's thesis, University of Twente).



- Sowmya, P, Dr.M.N.PrabaDevi, M.T. (2019) ‘The Role of E-HRM And Virtual Intelligence In Effective Organisational Behaviour’, 8(11), pp. 1087–1094.
- Ståhlbröst, A. and Bergvall-Kåreborn, B., (2011) Exploring users motivation in innovation communities. *International Journal of Entrepreneurship and Innovation Management*, 14(4), pp.298-314.
- Strohmeier, S. (2020) ‘Digital human resource management: A conceptual clarification’, *German Journal of Human Resource Management*, 34(3), pp. 345–365.
doi:10.1177/2397002220921131.
- Sungwa, J. (2021) ‘e-HRM within an African Context’, *OALib*, 08(07), pp. 1–19.
doi:10.4236/oalib.1107596.
- Tarlaci, B., (2020) AMO Practices, Innovative business strategy and digitalisation.
- Trofimov, A., Bondar, I., Trofimova, D., Miliutina, K. and Riabchych, I., (2017) Organisational Commitment Factors: Role of employee work engagement. *Revista Espacios*, 38(24).
- Umar, T.R., Yammama, B.A. and Shaibu, R.O., (2020) The implications of adopting and implementing electronic human resource management practices on job performance. *Journal of Human Resource Management*, 8(2), pp.96-108.