



HUMAN RESOURCE DIGITIZATION AND EMPLOYEE PERFORMANCE OF DEPOSIT MONEY BANKS IN BAUCHI STATE, NIGERIA

Muhammad, S. M., Mohammed, F. A., Baballe, S. U., & Jimoh, M. A.

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¹ Muhammad, S. M., ² Mohammed, F. A., ³ Baballe, S. U., & ⁴ Jimoh, M. A.

^{1,2,3,4} Department of Business Administration and Management, School of Business Studies, The Federal Polytechnic Bauchi, Bauchi State, Nigeria

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ABSTRACT

This study focused on the relationship between Human Resource Digitization and Employee Performance of Deposit Money Banks in Bauchi State. The study used a cross sectional design involving managers, supervisors, unit heads and employees of 2 selected banks in Bauchi Metropolis. The population of the study comprised of 120 employees from these selected deposit money banks. A sample size of 94 was adopted through the Krejcie and Morgan table and the simple random technique was used. After data cleaning, only data of 78 respondents were finally used for data analysis. Descriptive statistics and Spearman's rank correlation were used for data analysis and hypothesis testing. Empirical results confirmed that there is a positive significant relationship between human resource digitization and employee performance. The study confirmed that human resource digitization significantly related with the measures of employee performance (innovativeness and timeliness). The study concluded that human resource digitization has a positive and significant relationship with employee performance. The study recommended that MDAs should take advantage of the trending electronic and virtual training and development to improve up innovativeness and the timeliness in service delivery. With the current realities of Covid 19 and the new normal organizations in general and Deposit money banks in particular should invest more in to digitalization of its HR processes. They can do this by outsourcing to organizations that are specialized in this regard.

Keywords: Employee Performance, Human Resource Digitization, Innovativeness, Timeliness

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INTRODUCTION

During the last decades, with the growth of digitalization, technology adoption by organizations has made major impacts by speeding up processes (Heikkilä, 2013). Aiming to keep up with the evolution of technologies and responding to the market changes, organizations are adapting to become more productive and cost-efficient (Dixit, 2017). "Digitalization" refers to "a process of moving into digital business" ("Digitalization", 2020). An organization may change its strategy, structure, behaviour, and eventually, its performance by making the different elements of the organization work more effectively under the new digital circumstances (Csedo, Kovacs, & Zavarko, 2017). Among different industries, organizations have recognized the massive challenges that digitalization raises, especially on their business models (Schmidt, Drews, & Schirmer, 2017).

For the banking industry, digital technologies imply meliorating their services to obtain business superiority and to gain competitive advantage (Næss-Schmidt, Kjærulff, & Jensen, 2019). Digitalization has come into play in the service sector, becoming one of the influential factors affecting the workforce (Poruban, 2018). Digital innovations and advancements in the banking industry have reduced the cost of financial intermediation, and paved the way for a digital ecosystem for bank employees to render better service and to attract new customers (Forcadell, Aracil, & Úbeda, 2020). Service delivery can be defined as "a firm's capability to create finished components and deliver services/products to the customers" (Arshad & Su, 2015, p.2). Organizations capable of innovating and delivering better services are in a better position to gain customers' attention (Arshad & Su, 2015).

Employee performance can be judged in many different ways, each of this perceptive can be argued to be unique. Worthy of note is the concern that employee performance like other management concern does not enjoy universality of the

definition (Adubasim, Adim & Ibekwe, 2018). In general, employee performance is based upon the idea that organization is the combination of productive assets, human, physical and capital for the sole aim of achieving a shared purpose. How is performance measured is another key question. There are several indices to measure employee performance but the ones that stand out are effectiveness, efficiency as well as innovation (Adubasim, et al., 2018). Thus, the authors of this paper decided to study how digitalization of human resources influences the employees' performance.

This study also provided answers to the following research questions:

- What is the relationship between human resource digitization and innovativeness in Deposit Money Banks in Bauchi State?
- What is the relationship between human resource digitization and timeliness in Deposit Money Banks in Bauchi State?

LITERATURE REVIEW

Theoretical Foundation

Theory of Human Capital

Human capital theory argues that individuals' knowledge and skills improve their cognitive abilities to be effective and efficient, which, in turn, enables them to be more successful in activities (Becker, 1964). In entrepreneurship, human capital is likely to increase individuals' abilities to create ventures as well as the early performance of ventures (Davidsson & Honig, 2003). Specifically, entrepreneurs who have longer industry experience and a high level of general education are more likely to be successful than entrepreneurs who have less extensive industry experience and a low level of general education (Unger, Rauch, Frese, & Rosenbusch, 2011).

Entrepreneurship research posits that entrepreneur human capital increases venture success in several ways. First, entrepreneur knowledge and skills, which can be acquired through industry experience

or general education, can make up for a lack of financial resources, which is a major constraint for ventures (Kato, Okamuro, & Honjo, 2015). Consequently, the substitutability of human capital increases the probability of venture success. Second, human capital helps entrepreneurs to develop social capital (Mosey & Wright, 2007) and social skills (Baron & Markman, 2000), both of which provide access to critical resources for venture success (Semrau & Werner, 2014). Third, human capital affects venture strategy, which positively influences venture success (Baum, Locke, & Smith, 2001; Knight, 2001). In sum, entrepreneur human capital not only increases individuals' ability to successfully pursue entrepreneurial opportunities to create businesses, but also enables them to successfully exploit such opportunities.

Concept of Digital Human Resources

Digitalization

The terms digitalization and digitization are commonly misused as they are deemed to have the same meaning: digitization is often used as an interchangeable word to describe digitalization (BarNir, Gallagher, & Auger, 2003). However, digitization can be defined as "converting analogs physical measurements to digital forms" (Dictionary.com, 2020), for example, when a document is scanned to be used as a digital form. Digitalization, instead, "is the use of digital technologies to change the business model and provide new revenue and value-producing opportunities" (Gartner.com, 2020). The adoption and implementation of digital technology are used to bring value and transform information into the digital format (Bounfour, 2016). Digital transformation has been described as a long-term process for adding value and changing the operating system on business (De-Waal, Outvorst, & Ravesteyn, 2016) To further comprehend the ongoing digital transformation, these terms must be taken into consideration (Bounfour, 2016). In this thesis, the focus will be on digitalization and digital transformation.

According to Schmidt et al. (2017), due to the rapid development of digitalization, businesses have come under pressure to overcome fierce competition and technological change. Shifting from traditional services, a wide range of automated banking services are recently seen in the industry (Sindwani, 2018). Electronic banking technologies have been characterized as "automated teller machines (ATM Banking), internet banking, mobile banking, and telephone banking" (Sindwani, 2018, p.39), which are now available to customers decreasing the traditional interaction with the bank employees. Traditionally, bank competition was based on the product, but digitalization is gradually changing the very structures of the financial sector. The Swedish banking industry is considered to be one of the most digitalized and cost-efficient in Europe (Næss-Schmidt et al., 2019). Given that such technological innovations have a significant impact on the banks' services, the authors of this thesis found it relevant to dig deeper into the impacts of such innovations on the employees' engagement in the Swedish banking industry.

Digitalization can have both positive and negative effects on the employees' performance at work (Umans, Kockum, Nilsson, & Lindberg, 2018). Recently, researchers have started to look at some of the factors of an accelerated digitalization impacting the employees' well-being, especially in banks. Such factors are "occupational stress, depression and insomnia, among others" (Umans et al., 2018, p. 412). These results on employees could be linked to the features of the working environment, which must change in the same proportion as the organization transforms. Also, previous research has shown that an appropriate environment positively affects workers' productivity and behaviour (Umans et al., 2018).

Concept of Employee Performance

Employee performance has been the most important issue for every organization, be it a profit or non-profit one (Adubasim, Adim & Ibekwe, 2018). However, defining, conceptualizing and

measuring performance have not been an easy task (Adubasim et al, 2018). Lebas & Euske (2006) define performance as a set of financial and non-financial indicators which offers information on the degree of achievement of objectives and results. Employee performance encompasses three specific areas of firm outcomes: (1) financial performance (profits, return on assets, return on investment); (2) market performance (sales, market share); and (3) shareholder return

Employee performance involves the recurring activities to establish organizational goals, monitor progress towards the goals, and make adjustments to achieve those goals more effectively and efficiently (Richard, Devinney, George & Johnson, 2009). The assumption that knowledge management is needed for knowledge accumulation to result in improved employee performance possibly arises from the fact that researchers have opposing views about the impact of knowledge on employee performance (Vera & Crossan, 2003). It is expected that a particular category of knowledge, which is valuable, rare, inimitable and non-substitutable would lead to increased performance (Barney, 1995). On the other side of the discussion are authors who do not see a direct relationship between knowledge and performance. Organizations can always attain knowledge that may not lead to intelligent behaviour (Singh et al, 2006). Leonard (1992) states that core rigidities due to deeply embedded knowledge sets hinder innovation. In conclusion, Vera and Crossan (2003) suggests that the knowledge that is relevant may have a positive effect on employee performance.

Measures of Employee performance

Innovativeness as a Measure of Employee Performance

Innovativeness of entrepreneurs is measured by the propensity by which they innovate their business (Miller & Friesen, 1982); their willingness to try new ways which are different from the existing; the enthusiasm to adopt new ideas or new methods to their business operation; and the eagerness to

implement the innovation strategy in their business (Khandwalla, 1987). Innovativeness reflects a firm's tendency to engage in and support new ideas, novelty, experimentation and creative processes (Lumpkin and Dess, 1996) that may result in new products, services, or technological processes and which may take the organization to a new paradigm of success (Swieczek and Ha, 2003). It also implies seeking creative, extraordinary or strange solutions to problems and needs. Innovativeness represents a basic willingness to depart from existing technologies or practices and venture beyond the current state-of-the-art (Covin *et al.*, 2006). An innovative strategic posture can be linked to firm performance as it increases the chances that a firm will realize first mover advantage, stay ahead of their competitors, gain a competitive advantage and capitalize on emerging market opportunities that lead to improved financial results (Kreiser, Marino, & Weaver, 2002; Hult, Hurley, & Knight, 2004; and Kreiser and Davis, 2010).

Timeliness as a Measure of Employee Performance

Timeliness is recognized as an important component of work performance (Downs, 2008) Timeliness is a way of developing and using processes and tools for maximum efficiency, effectiveness, and productivity (Downs, 2008) It involves mastery of a set of skills like setting goals, planning and making decisions better. At the end we have better performance (Brogan, 2010). According to Thompson et al (2010), accurate and timely information about daily operations is essential if managers are to gauge how well the strategy execution process is proceeding.

Time is an essential resource since it is irrecoverable, limited and dynamic (Downs, 2008) Irrecoverable because every minute spent is gone forever, limited because only 24hours exist in a day and dynamic because it's never static (Claessens, Roe and Rutte 2009) According to North (2004) time management is the organization of tasks or events by first estimating how much time a task will take to be completed, when it must be completed,

and then adjusting events that would interfere with its completion is reached in the appropriate amount of time. Effective time management is the key to high performance levels. Effective time management not only affects the performance of employees, but also helps to cope with stress, conflicts and pressure more efficiently North (2004).

Timeliness is a method managers used by managers to increase work performance (Claessens, Roe, Rutte 2009) Performance can be seen as the consistent ability to produce results over prolonged period of time and in a variety of assignments (Galbraith, 2007) High performance in organizations is when an organization is so excellent in so many areas that it consistently outperforms most of its competitors for extended periods of time (North,

2004) Performance can be seen as the consistent ability to produce results over prolonged period of time and in a variety of assignments (Phillips, Jory and Mogford, 2007) Performance also determines the success and survival of every organization (Eruteyan, 2008).

From the foregoing arguments, we hereby hypothesized thus:

- H0₁: There is no significant relationship between human resource digitization and innovativeness in Deposit Money Banks in Bauchi State.
- H0₂: There is no significant relationship between human resource digitization and timeliness in Deposit Money Banks in Bauchi State.

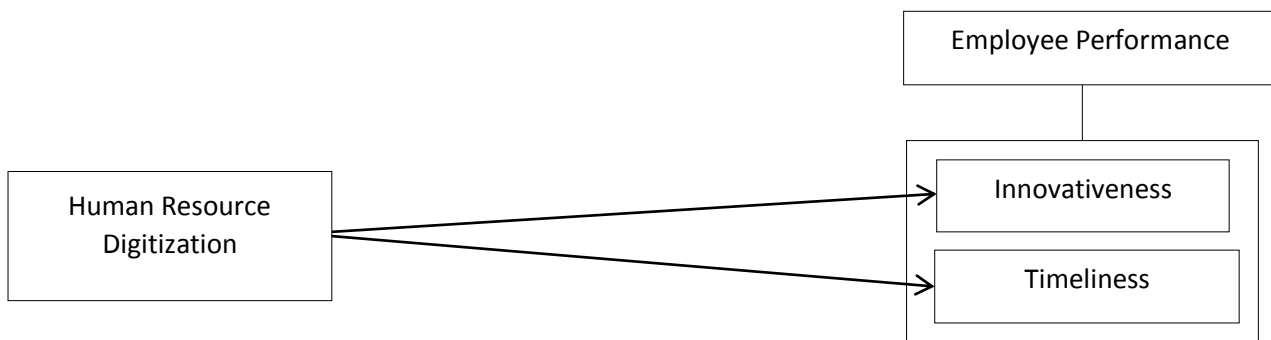


Figure 1: Conceptual framework showing the relationship between human resource digitization and employee performance

Source: Author’s Desk Research, 2021

METHODOLOGY

The study adopted the cross-sectional survey method in the generation of data. The target population of the study was deposit money banks in Bauchi State. An accessible population was selected from the deposit money banks in Bauchi State. A total of 2 deposit money banks were purposively selected and served as the accessible population of the study. A total of 120 workers were obtained from the Human Resources Department of all the branches of these deposit money banks which represented the sample frame. The sample size was

obtained using the Krejcie and Morgan (1970) table for determining minimum returned sample size for a given population. For our population, the table placed our sample size at ninety four (94). The sample size therefore was 94 and was used for the study. The sampling procedure used in this study was the purposive sampling technique which focused on managers and supervisors. Descriptive statistics and Spearman’s rank correlation were used for data analysis and hypothesis testing with the aid of the SPSS Package version 23.

Table 1: Reliability statistics for the instruments

S/No	Dimensions/Measures of the study variable	Number of items	Number of cases	Cronbach's Alpha
1	Human Resource Digitization	5	78	0.868
2	Innovativeness	5	78	0.878
3	Timeliness	5	78	0.906

Source: Research Data, 2021

RESULTS AND DISCUSSIONS

Bivariate Analysis

The primary data analysis was carried out using the Spearman rank order correlation tool at a 95% confidence interval. Specifically, the tests cover hypotheses H_{01} and H_{02} which were bivariate and all stated in the null form. We relied on the

Spearman Rank (*rho*) statistic to undertake the analysis. The 0.05 significance level is adopted as criterion for the probability of either accepting the null hypotheses at ($p>0.05$) or rejecting the null hypotheses at ($p<0.05$).

We shall commence by first presenting a proof of existing relationships.

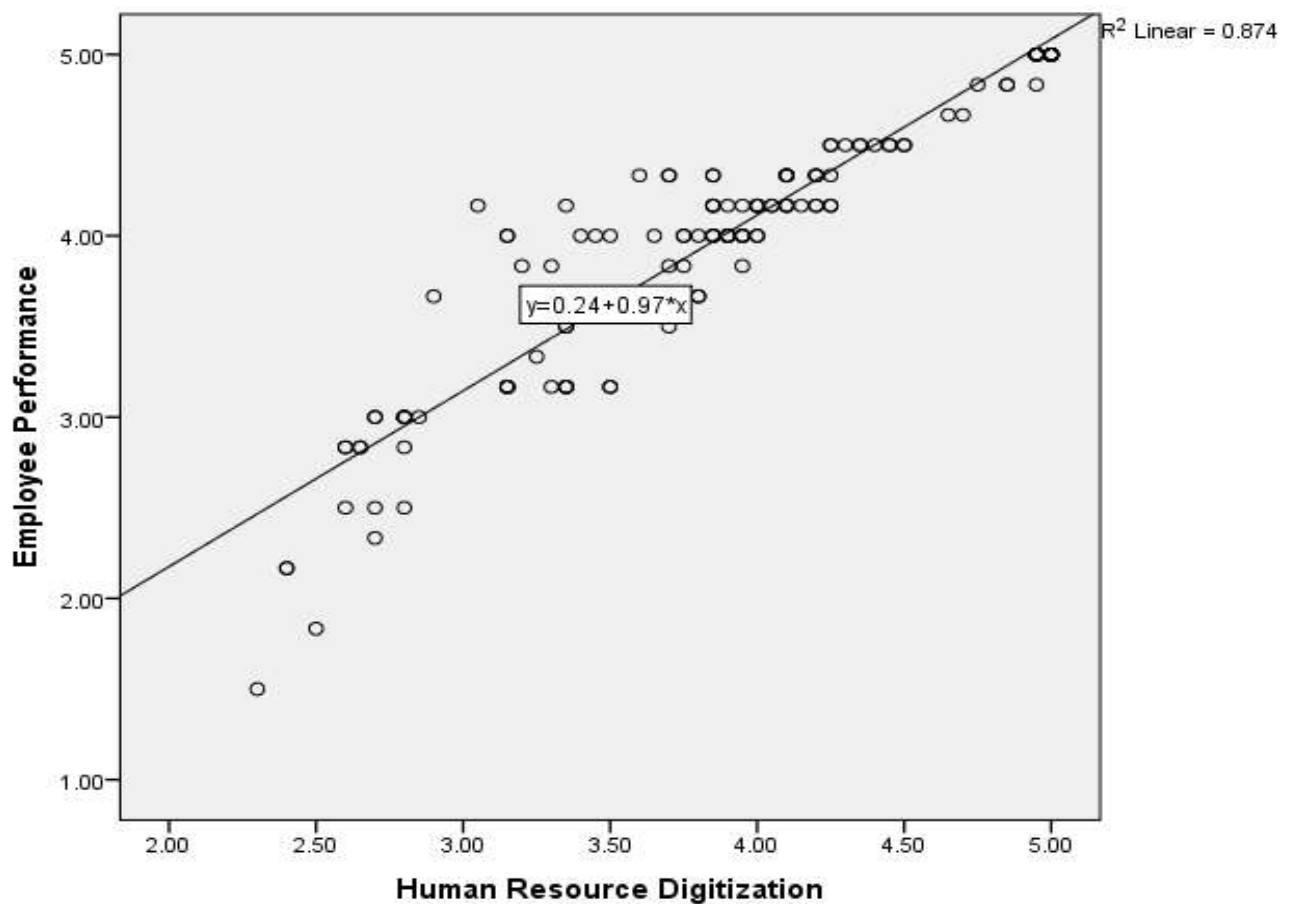


Figure 1: scatter plot relationship between Human Resource Digitization and Employee Performance

The scatter plot graph showed at R^2 linear value of (0.874) depicting a very strong viable and positive relationship between the two constructs. The implication was that an increase in human resource digitization simultaneously brings about an increase

in the level of performance among employees. The scatter diagram provided vivid evaluation of the closeness of the relationship among the pairs of variables through the nature of their concentration.

Table 2: Correlation Matrix between Human Resources Digitization and Employee Performance

			Human Resource Digitization	Innovativeness	Timeliness
Spearman's rho	Human Resource Digitization	Correlation Coefficient	1.000	.680**	.738**
		Sig. (2-tailed)	.	.000	.000
		N	78	78	78
	Innovativeness	Correlation Coefficient	.680**	1.000	.350**
		Sig. (2-tailed)	.000	.	.000
		N	78	78	78
	Timeliness	Correlation Coefficient	.738**	.350**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	78	78	78

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Research Data June, 2021 (SPSS output, version 23.0)

The table above illustrated the test for the three previously postulated bivariate hypothetical statements.

H₀₁: There is no significant relationship between human resource digitization and innovativeness in Deposit Money Banks in Bauchi State.

The correlation coefficient (r) shows that there is a significant and positive relationship between human resource digitization and innovativeness. The rho value 0.680 indicates this relationship and it is significant at p 0.000<0.05. The correlation coefficient represents a high correlation indicating a strong relationship. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between human resource digitization and innovativeness in Deposit Money Banks in Bauchi State.

H₀₂: There is no significant relationship between human resource digitization and timeliness in Deposit Money Banks in Bauchi State.

The correlation coefficient (r) showed that there is a significant and positive relationship between human resource digitization and timeliness. The rho value 0.738 indicates this relationship and it is significant at p 0.000<0.05. The correlation coefficient represents a high correlation indicating a very strong relationship. Therefore, based on empirical findings the null hypothesis earlier stated was hereby rejected and the alternate upheld. Thus, there is a significant relationship between human resource digitization and timeliness in Deposit Money Banks in Bauchi State.

Discussion of Findings

The findings revealed a strong and positive significant relationship between human resource digitization and employee performance using the Spearman's rank order correlation tool and at a 95% confidence interval. The findings of this study confirmed that human resource digitization has a significant positive relationship with innovativeness and timeliness. This finding however supports the views of Weick et al., (2005) who posited that in addition to making sense of digitalization being a challenge, it was clear that the HR managers perceived the role of HRM in need of evolution.

This can again be interpreted through the sense making process, as strongly affected by retrospection and presumptions. Because the HR managers perceive digitalization as an on-going change the organization needs to adapt to, it inflicts on the sense making of the perceived implications this will have on HRM. The HRM function was described as having much stronger business focus, and that being a strategic partner in the organization is indisputable. This implies a long-term focus, seeking to achieve competitive advantage through taking the whole organization into account (Watson, 2009; Salaman et al., 2005).

In connection with Thite and Kavanagh (2009), we argue that this confirms that the role of HRM in this case has evolved into becoming a strategic business partner focusing on employee development and talent attraction. We propose that it has evolved even further as the interviewees described the role of HRM as much broader. Thus, it can be a sign of what Roehling, Boswell, Caligluri, Feldman, Graham, Guthrie, Morishima, and Tansky (2005) regards as the blurring of the definition of the role of HRM. As the analysis showed, the changing role of HRM was perceived partially as a result of the technological development. This corresponds with the statement by Thite and Kavanagh (2009); that technological developments have affected the evolution of HRM. Thus, the empirical analysis confirms that digitalization impacts HRM on further levels beyond the potential use of digital HR tools. Therefore, to connect with Hempel's (2004) argument, putting emphasis on digital tools must not seclude HR professionals from acknowledging how technology changes work and organizations in a broader sense. This was clear from the perspective of our empirical analysis, as the HR managers perceived that digitalization has implications for HRM, despite their lack of use of digital HR tools. In the prospect of the sense making process, the HR managers' outlining of the implications digitalization has for them, are in accordance with Weick et al., (2005) steps of labeling and categorizing.

This can be understood in line with Bryson and Karsten (2009) suggesting that the use of fixed-term contracts can be regarded as facilitating component when facing uncertainties about the future. This in turn was perceived by the HR managers as new challenges for them as they need to develop new employment forms in order to be an attractive employer. Furthermore, the HR managers' explanations of new employment forms can be understood through Kuhn's (2007) definition of the gig-economy, as both of them include short-term employments. Building upon this, it can be connected to Bredin and Söderlund (2011) stating that project-based way of structuring work leads to a reduction of stable employment forms.

CONCLUSION AND RECOMMENDATIONS

Digitalization of HRM has become need of today's businesses world. Organizations have to go for digital transformation in order to gain competitive advantage and relevance in industry. This study provided the reader with an overview of the HR digitalization and its relationship with the performance of workers and the findings of this study would be important for organization in assisting them to implement digital HR effectively and thus improve their performance.

Nowadays, the digital HRM is very crucial and it has a growing concern for the organizations as well. This study thus concludes that there is a significant relationship between human resource digitalization and employee performance.

This study thus recommended that:

MDAs should take advantage of the trending electronic and virtual training and development to improve up innovativeness and the timeliness in service delivery. With the current realities of Covid 19 and the new normal organizations in general and Deposit money banks in particular should invest more in to digitalization of its HR processes. This they can do by outsourcing to organizations that are specialized in this regard.

REFERENCES

- Adubasim, I. E., Adim, C. V. & Ibekwe, W. (2018). Knowledge creation as predictor of employee performance in Abubakar Tafawa Balewa University, Bauchi, Bauchi State, Nigeria. *Global Scientific Journal*, 6(8), 231-250.
- Arshad, A., & Su, Q. (2015). Interlinking Service Delivery Innovation And Service Quality: A Conceptual Framework. *Journal Of Applied Business Research (JABR)*, 31(5), 1807. <https://doi.org/10.19030/jabr.v31i5.9393>
- Barney, J. B. (1995), Looking inside for competitive advantage, *Academy of Management Executive*, 9 (4), 49-61.
- BarNir, A., Gallagher, J., & Auger, P. (2003). Business process digitization, strategy, and the impact of firm age and size: the case of the magazine publishing industry. *Journal Of Business Venturing*, 18(6), 789-814. [https://doi.org/10.1016/s0883-9026\(03\)00030-2](https://doi.org/10.1016/s0883-9026(03)00030-2)
- Baron, R.A. and Markman, G.D. (2000), "Beyond social capital: how social skills can enhance entrepreneurs' success", *Academy of Management Executive*, 14(1), 106-116
- Baum, J.R., Locke, E.A. and Smith, K.G. (2001), "A multidimensional model of venture growth", *Academy of Management Journal*, 44(2), 292-303.
- Becker, G.S. (1964), *Human Capital: A Theoretical and Empirical Analysis*, Columbia University Press New York, NY.
- Bounfour, A. (2016). *Digital futures, digital transformation*. Springer.
- Bredin, K. & Söderlund, J. (2011). *Human Resource Management in Project-Based Organizations: The HR quadriad framework*, UK: Palgrave Macmillan
- Bryson, C., & Karsten, L. (2009). Managing Uncertainty or Managing Uncertainly? In Leopold, J., & Harris, L. (eds). (2009). *The Strategic Managing of Human Resources*, 2nd Edition, Harlow: Prentice Hall/Financial Times
- Claessens, B, Roe, R. & Rutte (2009). Time management: logic, effectiveness & challenges, In: Roe, R., Waller, M. & Clegg, S. (Eds), *Time in organizational Research*, London, Routledge, UK, pp. 23-41
- Covin, J. G., Green, K. M., & Slevin, D. P. (2006). Strategic Process Effects on the Entrepreneurial Orientation - Sales Growth Rate Relationships. *Entrepreneurship Theory and Practice*, 30(1): 57-81.
- Csedo, Z., Kovacs, K., & Zavarko, M. (2017). *How does Digitalization Affect Change Management: Empirical Research at an Innovative Industrial Group*. *iste.org*. Retrieved from <https://www.iiste.org/Journals/index.php/EJBM/article/view/40345>
- Davidsson, P. and Honig, B. (2003), "The role of social and human capital among nascent entrepreneurs", *Journal of Business Venturing*, Vol. 18 No. 3, pp. 301-331.
- De Waal, B., Outvorst, F., & Ravesteyn, P. (2016). *Digital Leadership: The Objective-Subjective Dichotomy of Technology Revisited*. Retrieved from https://www.researchgate.net/publication/310260335_Digital_Leadership_The_Objective-Subjective_Dichotomy_of_Technology_Revisited
- Definition of digitalization. *Gartner.com* (2020). Retrieved 12 March 2020, from <https://www.gartner.com/en/information-technology/glossary/digitalization>

- Dixit, P. (2017). *Digitalisation: An emerging trend in human resource practices*. Onlinejournal.in. Retrieved from <http://www.onlinejournal.in/IJIRV314/368.pdf>
- Forcadell, F. J., Aracil, E., & Úbeda, F. (2020). The Impact of Corporate Sustainability and Digitalization on International Banks' Performance. *Global Policy*, 11(S1), 18–27. <https://doi.org/10.1111/1758-5899.12761>
- Heikkilä, J. (2013). An institutional theory perspective on e-HRM's strategic potential in MNC subsidiaries. *The Journal Of Strategic Information Systems*, 22(3), 238-251.
- Hempel, P. S. (2004). Preparing the HR Profession for Technology and Information Work, *Human Resource Management*, 43(2&3): 163-177
- Hult, G. T. M., Hurley, R. F. & Knight, G. A. (2004). Innovativeness: Its Antecedents and Impact on Business Performance. *Industrial Marketing and Management*, 33, 429-438.
- Kato, M., Okamuro, H. and Honjo, Y. (2015), "Does founders' human capital matter for innovation? Evidence from Japanese start-ups", *Journal of Small Business Management*, Vol. 53 No. 1, pp. 114-128.
- Khandwalla, P. (1987). Generators of Pioneering Innovative Management: Some Indian Evidence. *Organization Studies*, 8(1), 39-59.
- Kreiser, P. M. & Davis, J. (2010). Entrepreneurial Orientation and Firm Performance: The Unique Impact of Innovativeness, Proactiveness, and Risk-Taking. *Journal of Small Business and Entrepreneurship*, 23 (1) 56-71.
- Kreiser, P. M., Marino, L. & Weaver, K. M. (2002). Assessing the Psychometric Properties of the Entrepreneurial Orientation Scale: A Multi-Country Analysis. *Entrepreneurship Theory and Practice*, 26(3), 131-146.
- Krejcie, R. V. & Morgan, D. W. (1970) "Determine sample size for research activities" educational and psychological measurement.
- Kuhn, K. M. (2016). The Rise of the "Gig Economy" and Implications for Understanding Work and Workers, *Industrial and Organizational Psychology*, 9(1):157-162
- Lebans, M. & Euske, K. (2006). *A conceptual and operational delineation of performance*", *Business Performance Measurement*, Cambridge University Press
- Lumpkin, G.T. & Dess, G.G. (1996). Clarifying the Entrepreneurship Orientation Construct and linking it to Performance. *Academy Of Management Review*, 21(1), 135-172.
- Miller, D. & Friesen, P. H. (1982). Innovation in Conservative and Entrepreneurial Firms: Two Models of Strategic Momentum. *Strategic Management Journal*, 3, 1-25.
- Mosey, S. and Wright, M. (2007), "From human capital to social capital: a longitudinal study of technology-based academic entrepreneurs", *Entrepreneurship Theory and Practice*, Vol. 31 No. 6, pp. 909-935.
- Næss-Schmidt, H., Kjærulff, C., & Jensen, J. (2019). *Publications - How digitalisation is changing the competitive dynamics in banking*. Copenhagen Economics. Retrieved 12 March 2020, from <https://www.copenhageneconomics.com/publications/publication/how-digitalisation-is-changing-the-competitive-dynamics-in-banking>.
- North, Y. (2004) .God's Clock maker; Richard of Wallingford & the invention of time .Oxbow Books.

- Poruban, S. (2018). *The digitalized workforce*. Oil & Gas Journal. Retrieved from <https://www.ogj.com/home/article/17232772/the-digitalized-workforce>.
- Richard, P., Davinney, S. & Johnson, G. (2009). Measuring Organizational Performance: Towards Methodological Best Practices. *Journal of Management*, 35 (3), 718-804.
- Roehling, M. V, Boswell, W. R, Caligluri, P, Feldman, D, Graham, M. E, Guthrie, J. P, Morishima, M. & Tansky, J. W (2005). The Future of HR Management: Research needs and directions, *Human Resource Management*, 44(2): 207-216
- Salaman, G., Storey, J. & Billsberry, J. (2005). *Strategic Human Resource Management – Theory and practice*, 2nd Edition, London: Sage
- Schmidt, J., Drews, P., & Schirmer, I. (2017). Digitalization of the Banking Industry: A Multiple Stakeholder Analysis on Strategic Alignment. *AMCIS 2017 Proceedings*. <https://aisel.aisnet.org/amcis2017/StrategicIT/Presentations/27/>
- Semrau, T. and Werner, A. (2014), “How exactly do network relationships pay off? The effects of network size and relationship quality on access to start-up resources”, *Entrepreneurship Theory and Practice*, 38(3), 501-525
- Sindwani, R. (2018). Consumer characteristics and technology based self service banking service quality: Evidence from delhi NCR region. *Prima*, 9(1), 39-49.
- Swierczek, F.W. & Ha, T. T. (2003). Entrepreneurial Orientation, Uncertainty Avoidance and Firm Performance. *Entrepreneurship and Innovation*, 4(1) 46-58.
- Thite, M. and Kavanagh, M. (2009). ‘Evolution of human resource management and human resource information systems: the role of information technology’, in M. Kavanagh and M. Thite (eds), *Human Resource Information Systems: Basics, Applications and Future Directions*, Thousand Oaks, CA: Sage
- Umans, T., Kockum, M., Nilsson, E., & Lindberg, S. (2018). Digitalisation in the banking industry and workers subjective well-being. *International Journal Of Workplace Health Management*, 11(6), 411-423. <https://doi.org/10.1108/ijwhm-05-2018-0069>
- Unger, J.M., Rauch, A., Frese, M. and Rosenbusch, N. (2011), “Human capital and entrepreneurial success: a meta-analytical review”, *Journal of Business Venturing*, Vol. 26 No. 3, pp. 341-358.
- Vera, D., & Crossan, M. (2003,). Organizational learning and knowledge management: Toward an integrative framework, in *The Blackwell handbook of organizational learning and knowledge management*, M. Easterby-Smith and M. A. Lyles (eds.), Blackwell Publishing, Oxford, UK.
- Watson, T. (2009) *Organizations, Strategies and Human Resourcing*. In Leopold, John W. & Harris, Lynette (eds.) (2009). *The Strategic Managing of Human Resources*, 2nd Edition, Harlow: Prentice Hall/Financial Times
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the Process of Sense making, *Organization Science*, 16(4): 409-421