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ABSTRACT

The concept of sustainability is understood as a company's ability to achieve its business goals by integrating economic, environmental and social opportunities into its business strategies; which seems vital for companies operating worldwide. In present day scenario, an increasing number of organizations identifying sustainability as the key differentiator for competitive advantage. Though many organizations make a commitment to sustainability, they often find it difficult to implement measure and integrate it. HR can help organizations succeed in implementing sustainable business practises. With the increased global revolution, technology is the key HR capabilities to drive sustainability and create sustainable HR systems and processes. However, we also see that the fast-moving technological disruption is creating a fear among these organizations for which they were raising question on their agility itself. These organisations today face the challenges of imparting new technology and making this new technological force as the key enabler to drive the organization in order to survive. This technological disruption on one hand is enabling the organisation to develop into a sustainable organisation in the long run while on the other hand, it is seen as the threat in restructuring the whole organisational culture, values and the human aspects, bonds, attachments and emotions associating the organisation which makes the organisation a vulnerable one.

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Global Revolution for Digitalising Human Resource Management: Its Vulnerability Viz-a-viz Sustainability?

Prof. Arup Barman^α & Mr. Karan Das^σ

ABSTRACT

The concept of sustainability is understood as a company's ability to achieve its business goals by integrating economic, environmental and social opportunities into its business strategies; which seems vital for companies operating worldwide. In present day scenario, an increasing number of organizations identifying sustainability as the key differentiator for competitive advantage. Though many organizations make a commitment to sustainability, they often find it difficult to implement measure and integrate it. HR can help organizations succeed in implementing sustainable business practises. With the increased global revolution, technology is the key HR capabilities to drive sustainability and create sustainable HR systems and processes. However, we also see that the fast-moving technological disruption is creating a fear among these organizations for which they were raising question on their agility itself. These organisations today face the challenges of imparting new technology and making this new technological force as the key enabler to drive the organization in order to survive. This technological disruption on one hand is enabling the organisation to develop into a sustainable organisation in the long run while on the other hand, it is seen as the threat in restructuring the whole organisational culture, values and the human aspects, bonds, attachments and emotions associating the organisation which makes the organisation a vulnerable one. Thus, the question arises, how far this technological disruption created as a result of

global revolution will create a wave of turbulence in the organization – will it act as an enabler or as the barrier to sustainability of the business organisation in the long run? This paper examines the issues for vulnerability and triggering factors for sustainability due to technology revolution as well as integration to present HRM in the world.

Keywords: disruptive technology, agility, digital hr, digital consciousness, technological volatility, uncertainties, adaptive science.

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I. INTRODUCTION

At the beginning, the concept of manpower management of human capital was considered as the cost factor, thus was considered as insignificant factor of production; it was seen as a constraint for a company to achieve the strategic objectives in business. It was only during the 1980s to 2000, human resource management¹. Thus, human capital formed a substantial factor in achieving competitive advantage in business (Barney, 1991². A study of new businesses by Bamford, Dean and McDougall (1996) identified that acquiring competent human resources was critical for a venture's success or failure because HRM practises influence and may determine if a firm does well in developing its products/services it offers³. Thus, the human resources are acknowledged be among

the most able assets for an organisation. Therefore, the development reater sustainability i.e. ability to achieve its business goals and to increase long term shareholder value by integrating economic, environmental, and social opportunities into business strategies in the long run.

The traditional HRM is characterized by too much paper work with long administrative procedure; consequently, makes whole process slow and lots of errors in processes and implementations. During that time, HR organisation in itself was confined to just 'administration' of employees. After an advent of and during the emerging technological revolution around the globe, HRM have been transforming to a high impact digital HRM. This digitalisation has been implemented through the technological integration, that has been impacting to become a much more effective and efficient HRM than the traditional HRM. Today, the efficiency of HRM refers to the ability of an organization to effectuate its activities faster and at arenounced employees as 'human resource' who are vital organizational 'assets'. Therefore, it is realised that human resources require integrated and complementary management strategies in order to assure their individual and collective contributions to the achievement of organizational goals (Rotich K.J. 2015) lower cost. To meet the demand of today's need, there is an increasing pressure on HRM to support strategic objectives and to focus on value-adding activities, which consequently leads to the change in the job content and the expectations on Human Resource (HR) professionals⁴. Today, HR is not treated as a single function but a collection of highly specific capabilities with discrete objectives and needs. There has been an ever-increasing burden on human resource management not only to support the strategic goals but also to focus on value adding actions. Organizations have realised the growing necessity of technologies in leveraging the HRM functions, for intensifying competition, managing the global workforce, and to

improve HR service delivery with cost savings⁵. This emerging need of a high impact digital HR have been forcing the organizations and HR leaders to turn to investing in HR Technologies to improve HR's experience in business⁶. Today, HRM is not only concentrated to administration alone, but also have integrated technology and innovation to the core business processes to support strategic decision making to achieve organisational objectives.

HR Transformation has evolved significantly over the last decade along with the changing business environment around the world. HR transformation leverages technology to transform the HR functions by aligning the human capital strategies with their business strategies and objectives. This HR transformation involves with the development of HR strategies, creation of new service delivery models, design and implementation of shared service delivery models and implementation of core and enabling technologies. Thus, the HR transformation involves the development of advanced capabilities to align HR structure and services with the business needs that facilitate the business growth and operational excellence. Technological advancement in bringing advanced HR capabilities which are enabling organization(s) to execute its business strategy more effectively and to improve performance across the entire organization and not just within the HR function.

II. DIGITALIZATION OF HRM

The domain of Human Resource Management has evolved from the role of Labour Manager (1890 -1913), as a Labour manager (1914-1939), as Personnel Management (1945-1979), and finally as Human Resource Management (1980-2000)⁷. It was only during the 1980s and 2000, human resource management considered employees as vital organisational assets, possessing knowledge, skills and aptitudes which contributes to achievement of organisational goals and objectives. Also, with the turbulent business and economic environment and severe competition, there emerged a developmental need of HRM to move from their traditional domain of

employee administration to anticipate for ideation of scientific discovery and innovation.

The HRM function today, is asked to bring new ideas, to change the HR processes and to develop the HR services delivery. HR now plays the role of creating value in the organisation. HR has differentiated its status from the traditional practises, through integrating the HR service design by installing trust with every division of the organisation by considering a holistic approach. The HR innovations must entails collaboration with top management; along with integration with the business goals, vision, missions of company; strategic plan and culture of organization and company-wide communication⁸. Intense business competition and the evolving quest of HRM innovation have transformed the role of HRM to a high-impact strategic HRM wherein the HR function is enabled to act strategically in terms of delivering enhanced user experience and aligning itself to support overall business objectives.

The world is undergoing a fast-moving technological change with increasing dominance of digital technologies. The present age which is also termed as the 'digital age', digital technologies play a prominent role in both the lives of employees and human resource management (HRM). The relentless march of digital technology is transforming the business competitive landscape and now redefining both the work and workforce. Digital impact of HRM is on broad consensus is labelled as 'digital work', 'digital employees' and 'digital management'. This digitalization of employee, work and employee indicate the connubial relationship of digital technology and employee management⁹. Digitalization has been affecting in all the HR functional areas which labelled e-recruitment, e-selection, e-employee development, e-performance and evaluation etc. covering all the areas of HRM¹⁰. Thus, digital technology has transformed many business functions and created new business models, with a whole new raft of digital-centric companies challenging the status quo. This disruption can be used to drive real change in HR, transforming the practice to

ensure it delivers against the expectations of both business leaders and employees.

III. HR-TECHNOLOGIES IN RUN

Human resource technology is the key focus area of HR transformation. Fast moving technological disruption has led to high impact digital HRM which provide technology based innovative solutions for the HR processes and services. The key objective is to deliver seamless employee experience in addition to increased transparency of HR processes, generating insights to analyse data and adopt accurately to emerging business priorities. HR technology is a crucial tool for competitiveness as organisation develops impactful work structure, make objective business decisions, improve employee productivity and add great deal of value to business. Therefore, human resource technology has embarked on HR transformations so as to enable the organisations to focus and accelerate, their efforts to have an impact on increased HR efficiency, enhanced employee experience, and business impact and sustainability. The increasing innovation in Human Resource Technology has contributed for the organisation grows from being efficient in business to being enablement to digital business. This transformation to a high-tech digital HR has been divided into three phases¹¹:

Phase I: Highly efficient HR shared services and operations – self-service, efficient HR operation
 Phase II: HR focussed on business impact and results with an emphasis on HR business partners.
 Phase III: Digital business leveraging digital technologies, mobile, social, real time HR operations.

In the first phase, we see that HRM is merely confined its role as a service provider, wherein the Human Resource Department provides administrative services to its employees which covers recruitment, selection, performance evaluation, job evaluation and reward management. However, in the second stage, HR

role evolved to a strategic HR, wherein the HR act as a core organisational function which formulate and implement strategies to support core business decisions. Finally, in the third stage, the HR plays its role as a business partner, wherein the HR leverages advanced technologies to provide enriched service delivery and revolutionise employee experience through digitalisation. The HR landscape has changed from traditional pen and paper to enabling technologies like cloud technology, machine learning, artificial intelligence etc. to drive operational efficiencies and also improve the employee experience together with a more technologically connected workforce. Large organisations are now seen making huge investments in HR technology, wherein the HR Tech firms emerge to carry over their major HR activities through technology leveraging to provide improved HR performance with competitive advantage. Thus, the new HR transformation shows the adoption of new evolving HR technologies as organisations take advantages of an evolving marketplace to improve the value delivered by investing in new digital HR solutions. The shift is on the next level of efficiency and freeing resources to focus on business priorities including workforce models, HR innovation and HR automation.

IV. TYPE OF HR TECHNOLOGIES

Human resource technology refers to all of the software used to track, manage, pay, understand, find, inform, or to remember, and to deliver the human side of benefits to the people in the organisation with an aim in bringing down holistic efficiencies of an organisation. We the authors classifying HR Technologies based on the types of applications of technology and the data uses in the technology for HR decision.

4.1 Based on Applications

a. *Integrated HR Technology*: Integrated Technology is defined as the use of various HR technology tools in general content areas of HRM in order to apply these HR

technologies to provide holistic HR solutions in strategic decision making.

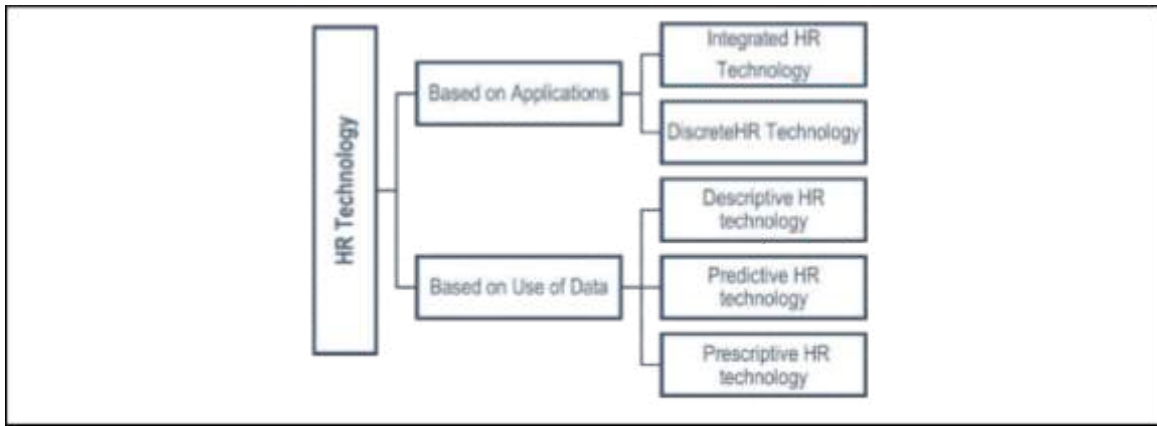
b. *Discrete HR Technology*: Discrete technology is defined as the use of separate and distinct HR technology tools designed for specific content areas of HRM in order to provide differentiated and user defined HR solutions to provide enriched user experience.

4.2 Based on Use of Data

a. *Descriptive HR Technology*: Descriptive analytics is the analysis of past (or historical) data to understand trends and evaluate metrics over time. This is the easiest technique of data analysis because it requires minimal to no coding at all.

b. *Predictive HR Technology*: Predictive analytics goes a step ahead of descriptive analytics. While descriptive analytics is limited to past data, predictive analytics predicts future trends. Predictive analysis only forecasts the future with hundred pc accuracy. It can include predicting the values of missing fields in a data set and probable impact of data changes on future trends.

c. *Prescriptive HR Technology*: Prescriptive analytics is comparatively a new field in data science and limited data applications. It goes even a step further than descriptive and predictive analytics. Prescriptive analytics showcases viable solutions to a problem and the impact of considering a solution on future trend.



Source: Own compilation

Figure: Types of HR Technology

HR technology innovation and invention has become a daily phenomenon. Different type of technology has entered different functional arena of HRM, then serving HRM technologically. Say biometrics, Cloud Computing, GPS Technology and Time Clock has entered in the routine arena of HRM function, i.e. for Time and Attendance

management. These technologies are mainly to describe with the help of data, serving distinctively in the field of HRM. In time and attendance management data technology has entered as descriptive and discrete technology that we found empirically the name of tech player with its brand i.e. Cropkiosks (in Table: 1).

Table 1: Typological Overview of HR Techs

HR Functions	Technology	Types of Technology	Application Agency
Time & Attendance	Biometrics, Cloud, GPS, Time clocks	Descriptive, Discrete	Corpkiokos
Payroll	Data analytics, Cloud, Mobile, Time clocks	Descriptive, Discrete	Niyo Solutions
Workforce Management	Cloud, GPS, Web Time clocks, Biometrics, Magnetic Swipe Cards	Descriptive, Predictive, Discrete	Sapience
HRIS	Holistic Technology	Descriptive, Integrated, Predictive	SyncHR
HR analytics	Cloud, Data analytics	Descriptive, Predictive, Integrated	Kronos
Health and Safety	3D Visualisation, Journey Management software. GPS	Descriptive, Discrete	SHE
Talent Management	ICT, Data analytics, ATS	Descriptive, Predictive, Integrated	Mettl
Performance Management	Cloud, Data analytics, E-appraisal,	Descriptive, Predictive, Discrete	Kwench
Succession Planning	Organisational charting	Descriptive, Discrete	Halogen
Learning	Cloud, Machine learning, Mobile Learning	Descriptive, Predictive, Discrete	Capabiliti
Training and Development	Web conferencing, Data analytics, Mobile learning, Virtual training, Stimulation training	Descriptive, Discrete, Predictive	Seattle Genetics
Wellness Management	Data analytics, Mobile Health Application, Cloud	Descriptive, Discrete	Kinema Fitness
Onboarding	Mobile onboarding, Cloud, Data analytics, Digital training	Descriptive, Discrete	Employera
Career building	Resume builder, Social network, ATS	Predictive, Discrete	Vmock

There are many emerging technologies, yet to enter in the arena of HR management but have been experimented for future application. To name a few, they are- Artificial Intelligence (AI), Big Data Analytics, and Machine Learning etc. combining which HR Technology has just entered but yet to get popularity. The emerging technologies as the disruptive technology have continuously been redefining the functions of HR which is now crave for delivering high levels of service, has open-programming interfaces, enriched user experience, and facilitating to fit the business culture.

V. PREDICTED ADVANTAGES OF HR-TECH

Businesses in many cases are failing to transcend the gap between knowing what's needed and doing what's needed for real progress, combining modern technology with new processes and skills to propel HR into the 21st century. HR is now expected to align itself with overall business strategy, help create a digital workforce and digital workplace, and contribute meaningfully to ROI of the organisation. It is also acquiring new skills and embracing digital technology to help it deliver innovative solutions that meet the real-time needs of managers as well as multiple generations of employees, most of whom are comfortable in the digital world. Thus, the new HR transformation coming with the increasing innovation in HR technology, is creating insecurities in the present market place. These insecurities can be treated as a threat to the survival of the organisation in the long run. However, organisations understand the need of the Techno led HRM wherein the HR functions are refined to operate with 100% accuracy and in least time. The organisations are now migrating their HR processes to automation wherein most of the HR services will be delivered automatically without any human interference. The rapid digitalisation and technological disruption of HR technology is changing the dynamics of HRM creating a serious uncertainty which are being

embraced by the innovating organisations as a valuable opportunity to build new competitive advantage in this challenging business environment. HR leaders have discovered that technological disruption will definitely help deliver data based insights, smarter decision-making, real value for the bottom line or anything resembling cloud computing's vast capabilities to redefine HR and engage more effectively with employees¹². Thus, the innovative HR technology will serve as the fulcrum in providing quality HR services effectively and efficiently with enriched user experience, enabling the HR to side-line their core administrative tasks, by being productive by acting as a partner in strategic decision making in the organisation.

VI. VULNERABILITY OF HR TECH

Though HR Tech provides the competitive upper-hand to the organisation in this intense competitive and strive for excellence market there is also many challenges which makes HR tech vulnerable. Increasing advancement of technology is making the existing technology fast obsolete. This creates an insecurity for which organisations are reluctant to invest in latest HR technologies. Moreover, there is a much greater challenge to tackle the resistant to change from traditional HR to digital HR as big transformations bring discomfort and trepidations, for which difficulties arises in aligning this HR transformation to organisational strategies¹³. Therefore, there is a challenge to develop a HR model to adapt to this change that makes HR Tech vulnerable. Furthermore, advancement in Information and Communication technology (ICT) is building a new 'data generation' where presence of data is everywhere is also posing a threat of data insecurity, which makes the HR Tech vulnerable. Again, Digitalisation of HRM is replacing humans with machines which have created paranoia in the minds off humans of losing their jobs to machines, which have made the HR Tech vulnerable. It is also a challenge of HR to upgrade

the workforce to digital workforce to augment human workforce to machines. Therefore, the HR tech which on one side is considered as the fulcrum of sustainability can also prove to be a vulnerable phenomenon; by being a constraint to making the organisation profitable in the long run.

VII. PREDICTED CHALLENGES

The on-going HR transformation has led to massive restructuring of HR operations and processes or the ways in which HR services were delivered. This digital HR have proved to be a challenge for HR to reinvent itself for the digital age. This digital technology is transforming the competitive HR landscape and redefining both work and workforce.

This digital HRM is bringing more challenges to the HR profession which might be broadly labelled as ‘digital employees’, ‘digital work’ and ‘digital employee management’¹⁴. Firstly, the digital HR has brought about a challenge of new digital talent management. There is an increasing need of a digital workforce in the organisation which are characterised by marked digital qualifications, multi-tasking capabilities, affinity for networking, learning by doing and preference of instant gratifications and frequent rewards¹⁵. Therefore, the challenge of HR is to find the right kind of talent which can work alongside technology. Secondly, the digital HR have a brought about a challenge to embrace and adapt to the change of content and way of work. As the information have gone digital today, therefore, work of employees has become more and more dependent on digital tools and media. The traditional pen and paper work is now being replaced by machines. Digital technologies have enabled new form of organising work that ranges from virtual workplaces to virtual groups, teams or communities and even virtual organisations¹⁶. Therefore, the challenge of HR is to prepare the employees so as to adapt to this changing of nature of digital work. Thirdly, the digital HR transformation has led to the rise of ‘gig workers’ or freelancers and their work can be best¹⁹.

The e-HRM revolution which relies on cutting edge information technologies in almost all significant functions of Human Resource Management to optimize the management and also improve the efficiency of the organisation. With the Technology led HRM taking the forefront, advancement in technologies have brought about a high impact digital HR which have helped to develop advanced HR capabilities and effective HR services; to align its HR illustrated as e-lancing¹⁷. Freelancing replaces conventional employees, wherein the basic HR functions are carried out by the freelancers as per the requirement of the organisation. This has significantly been able to cut the costs however, brought up a challenge to manage this flexible workforce effectively and efficiently. And lastly, digital HRM has brought about the challenge of digital employee management which refers to planning, implementation of HR technologies to support and network HR technologies¹⁸. Not only the administrative HR functions such as payroll, record keeping etc. but also the managerial and strategic HR functions needs to be digitally developed so as to increase its operational efficiency and build its strategic position, while avoiding or at least reducing the associated shortcomings. Thus, digitalisation of HRM not only acquaints HRM with new opportunities but also confronts HRM with new risks.

VIII. SUSTAINABILITY OF HR-TECHS

Today HRM has become the centre of attention of each business organisation in this competitive marketplace, wherein the HR plays an important role in all strategic decisions. HR is asked for more strategic position within the organisation with the aim to get to the essence of the problem how to manage, to motivate and to increase the performance of organisation structure with business needs for operational excellence and strategic management.

Sustainability in business definitely means the ability of the organisation to achieve its business goals and to increase long term shareholder value

by integrating economic, environmental and social opportunities into its business strategies. As the world has entered the 21st century, companies found themselves in need to develop more sustainable business models, and the HR has a key role in this process²⁰. Digitalisation of HRM has been successful in transforming the functions of HR so as to address the issues of HR and also align HR with business strategies and objectives. As technology is rapidly evolving, the organisations which are embracing technologies and implementing technologies in their business practises have a competitive advantage in this intense competitive environment. The HR function can play a catalytic role in bringing about change and facilitate the implementation of sustainable business practises²¹. Therefore, HR Tech will be the key driver for sustainable business practises in an organisation.

IX. CONCLUSION

Technology is a threatening, and technology is an enabling factor to human resource management. No doubt, technology may create many perplexities and uncertainty to the sustenance for the discipline and professionalism of traditional HRM. Whatever is the technological hitches hitting the human resource management, technology cannot be at par the human being as because human being will have the supremacy when the over reliance on technology will make human being bore or fade up, at that point HR based technology will never be a future threat but it will be an enabling factor that will help human resource management to practice humanities in real sense in an industrial setup. Technology has been creating the traditional human resource management as the vulnerable HRM but to modern and contemporary HRM, technology has become the riposte, it shows the path of innovation and for the path of sustenance of HRM. Over integration of HR-Technology will replace original humanities in the organisational world in the days to come. We are confident that by 2030, technology based HRM will replace again human based HR over and above

technology led platform. Technology will be base but driving force will be again human resources.

REFERENCES

1. Rotich. K.J. (2015), History, Evolution and Development of Human Resource Management: A Contemporary Perspective; *Global Journal of Human Resource Management*; Vol. 3, No. 3, pp 58 – 73, May 2015; Published by European Centre for Research Training and Development UK (www.ejournals.com)
2. Barney J. (1991), 'Firm Resources and Sustained Competitive Advantage, *Journal of Management* 17(1), pp.99- 120.
3. Bamford C.E., Dean T.J., and McDougall P.P. (1996); 'Initial founding conditions and new firm performance: A Longitudinal Study Integrating Predictions from Multiple Perspectives', *Frontier of Entrepreneurship Research*, 465-479
4. Piabuo S. M., Piendiah N.E., Njamnshi N.L., and, Tieguhong P.J. (2017); 'The impact of ICT on the efficiency of HRM in Cameroonian enterprises: Case of the Mobile telephone industry', *Journal of Global Entrepreneurship Research*, Springer Open.
5. Mukherjee A.N., Bhattacharyya S. and Bera R. (2014); 'Role of Information technology in Human Resource Management of SME: A study on the use of Applicant Tracking System'; *IBMRD's Journal of Management and Research*, Print ISSN: 2277-7830
6. Das K., & Barman A. (2018), 'Techno-entrepreneurism in HR-Tech space-Global perspective and Indian scene', *International Journal of Creative Research and Thoughts (IJCRT)*, Vol. 6, Issue 1, March 2018, ISSN: 2320-2882 <http://www.slideshare.net/karthikram75457/evolution-of-hrm-29099487>
7. Barman A., and Singh. R. (), 'HR innovations out of Recession in India-An appreciative text and opinion analysis', SSRN1673650
8. Barman. A, and Potsangbam. C (2018), 'Marriage of Human Resource to Data

- Science: A Narrative' An Unpublished Paper Accepted in IJMOS.
9. Lepak D.P., and Snell S.A. (1998), 'Virtual HR: Strategic Human Resource Management in the 21st Century', *Human Resource Management Review*, 8, 215-234, [http://dx.doi.org/10.1016/S1053-4822\(98\)90003-1](http://dx.doi.org/10.1016/S1053-4822(98)90003-1)
 10. Deolite (2016), 'Human Resource Transformation: What next? - Realizing the impact of HR as a Business Enabler', www.deolite.com
 11. KPMG International (2017), HR Transformation – Which lens are you using? www.kpmg.com/HRT
 12. Barman A. and Das K. (2018), 'Disruptive Technology in Human Resource Management -From the Bloggers Spectacle', *International Journal of Research in Engineering Applications and Management (IJREAM)*, Vol.3, Issue 11.
 13. Parry E. and Strohmeier S. (2014), 'HRM in the digital age – digital changes and challenges of the HR profession', *Employee Relations*, Volume 36, Issue 4
 14. Prensky M. (2001), 'Digital natives, digital immigrants', *On the Horizon*, Vol. 9, No. 5, pp1-6
 15. Powell A., Piccoli G. and Ives B. (2004), 'Virtual teams: a review of current literature and directions for future research', *ACM Sigmis Database*, Vol.35, No.3, p335-354
 16. Aguinis H. and Lawal S.O. (2013), 'e-Lancing: a review and research agenda for bridging the science-practise gap', *Human Resource Management Review*, Vol. 23, No.1, pp 6-17
 17. Bondarouk T.V. and Ruel H.J.M. (2009), 'Electronic Human Resource Management: challenges in the digital era', *International Journal of Human Resource Management*, Vol. 20, No. 3, pp 505-514
 18. Mamoudou S. and Joshi G.P. (2014), 'Impact of Information Technology in Human Resource Management', *Global Journal of Business Management and Information Technology*, Vol. 4, No.1, pp 33-41, ISSN 2278-3679
 19. Mazur B. (2014), 'Sustainable Human Resource Management in theory and practise', *Journal of Economics and Management*, DOI:10.12846/j.e.m.2014.01.09
 20. Ernst and Young LLP (EY) (2013), 'Role of HR in driving sustainability business practises', www.ey.com/in

Web Sources

- www.corpkiosks.com/ (browsed on 20.04.2018)
- <https://www.goniyo.com/> (browsed on 21.04.2018)
- www.sapience.net/ (browsed on 22.04.2018)
- <https://www.synchr.com/> (browsed on 23.04.2018)
- <https://www.kronos.in/> (browsed on 23.04.2018)
- <http://shestores.com/> (browsed on 24.04.2018)
- <https://mettl.com/> browsed on 24.04.2018
- <https://www.kwench.com/>(browsed on 25.04.2018)
- <https://www.halogensoftware.com/> (browsed on 25.04.2018)
- <http://www.capabilityhr.com.au/>(browsed on 25.04.2018)
- <https://www.wagonslearning.com/> (browsed on 25.04.2018)
- <https://www.kinemafitness.com/> (browsed on 25.04.2018)
- <https://www.employera.com/> (browsed on 26.04.2018)
- <https://www.vmock.com/> (browsed on 26.04.2018)