# HR: DIGITAL TRANSFORMATION 2020

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#### **Abstract**

This paper will study the concept of digital transformation in Human resources management and how different technologies are serving different HR functions and its employees. The study is descriptive in nature and secondary data has been used like company reports, web sources, expert blogs and research papers. The study has investigated the concept of "SMACI" the practice of Artificial Intelligence (AI), HR Chatbots, Machine Learning, Robot process automation (RPA) in formulating the basic functions of human resource management (recruitment, screening, interviewing, Onboarding) smarter, faster and effective. The study also interposed in the literature by reconnoitring the various tools which are used by the companies for the development and expansion of HR department. The advantages of having digital transformation in Human resource management, possible barriers or challenges a company has to meet while transformation and solutions to overcome those challenges has also been explored with the examples of Indian companies and their novelty in businesses.

#### 1. Introduction

Artificial intelligence, Robotics, Virtual Reality, Device Learning-technology is it has overpowered societies, cultures, economies, and businesses. The Sphere is on the edge of fourth industrial transformation. According to Deloitte's 2017 Human Capital Trends report: It's about HR players taking up the twofold challenge of renovating HR processes on the other hand, and renovating the workforce and the way work is done on the other. So, rather than HR digital transformation being just about HR, it's a transformation that includes organization as a whole.

This revolution includes an amalgamation of technologies that gradually declining the lines between digital, arenas. It incorporates the processes and

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product fluctuating from driverless cars, smart robots, artificial intelligence (AI), Nano technology, Reality for the digital world. Digital revolution has transformed the customer opportunities and has rebuilt the conception of product enhancement, cooperative innovation, and organizational structure. As a rule of thumb, any HR revolution, whether it is a digital one or not, has endured the place with a clear goal in mind. Often companies seem to give in to colleague anxiety but digitalizing definite HR processes just for the sake of it is never a good idea. It leads to the application of technology that doesn"t meet the certain needs of the business.

#### 2. Literature Review

The concept of digital transformation was first mentioned by Patel and McCarthy (2000) however they didn't conceptualize the term. There are few studies which provide an insight into the concept. One of them was The Cappemini research of Westerman et al. (2011), they specify digital transformation as: "the use of technology to radically improve performance or reach of enterprises". Similarly, Stolterman and Croon Forst (2006,) defines digital transformation "as the changes that digital technology causes or influences in all aspects of human life".

From another perspective, Lankshear and Knobel (2008) describe digital transformation as the final level of digital literacy. At this level, digital technologies enable innovation and creativity and stimulate significant changes in professional and knowledge domains. These definitions clearly show that digital transformation doesn't entail gradual incremental changes, but fundamental "radical" changes due to digital technologies. Lucas et al. (2013) in their study identified 7 different dimensions to segregate technology-driven transformations. They propose that when three of the dimensions are significantly impacted, a technology driven change is considered transformational as proposed.

Bharadwaj et al., (2013); Fitzgerald et al., (2013) they considered digital transformation as the combinations of information, computing, communications, and connectivity technologies. Applying digital technologies is often referred to as digitalization. Digitalization is characterized by Fichman, Santos, and Zheng.

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# 3. Research Objectives

- 1. To study digital transformation in Human Resource Management context.
  - 2. To identify the key enablers of Digital Transformation.
- 3. To identify the benefits of having the digital transformation for HR and businesses.
- 4. To study various challenges faced by HR while adopting digital transformation.
- 5. To study what all are the possible ways to overcome those barriers in the digital transformation.

# 4. Research Methodology

This study is an evaluation based descriptive study in which the secondary data is taken and available from online sources such as company reports, blogs of experts, websites, Research papers, and magazines have been used.

Preparatory with the various phases of a digital HR transformation. Because an organization doesn't go from being hardly digital to being fully digital overnight. These types of changes true transformations actually take time.

Distinguishes six phases of digital transformation:

6 Stages of Digital Transformation

2 Present & Active

Various experiments
throughout the organization
drive digital literacy &
creativity

4 Strategic

Individual realize the power of
collaboration. Their shared
efforts and insights leads to new
strategic roadmaps

5 Converged

This is where the business
relevance comes in. If it is nelevant for the business, the
leadership shouldn't support it although that's not all-ways the
case, unfortunately

5 Converged

This is where a dedicated digital
transformation team is formed
to guide the company strategy
and operation

Digital transformation has
become the new "business as
usual" and a new ecosystem is
established

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# 5. The Concept of SMACI of Digital Transformation

As HR is proceeding towards the digital transformation and the prospect is determined mobile, artificial intelligence, social media, and cloud computing, the skill required for organizations to cope up their workforce to flourish more flexible, active and modified. Social, mobile, analytics, cloud and internet completely make a mesh of technology which is called as SMACI. This technology mesh authorising initiatives crossways critical digital measurement containing products and services, customer experience, operations, and workforce. The combined play of SMACI benefits in bringing content, commerce, and teamwork to customers anytime and anywhere in an inclusive, personalized, linked and cost effective manner.

**Social media:** Social media Platforms give aids to businesses in collaborating with their customers.

**Mobility:** is transferring the effort of application progress away from the desktop to mobile first approach.

**Analytics:** is permitting enterprises to study large volumes of data to gain understandings and drive deliberate decisions.

**Cloud computing:** is redesigning the way software and facilities are sold and delivered.

**Internet of Everything (IoE)** is introducing significant opportunities by connecting everything to the internet.

# Benefits of Digital Transformation to Human Resource Management

- (a) Smart Recruitment: The study says that nearly 40% of companies are using some form of AI in HR. Organisations like IBM, SAP, Facebook, & Hilton worldwide are already using this game changer expertise to screen, interview and recruit new genius..
- **(b)** Ease out the Screening and Interview process: Artificial Intelligence is also showing very helpful in powering the interview process by assessing candidates word choices, speech patterns and facial expressions. AI can turn a 15 min video interview into a set of 20,000 data points on facial movements, novelty and word choice to assess a candidate. It can also aid in

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collating data about the communicating aspects of the potential candidates through machine learning and regulate if those candidates are a right culture fit for the organization.

- (c) Enhance Onboarding experience: the study found that Onboarding had a resilient influence on employee retention. So, it is important to make the first impression important for. Artificial Intelligence is facilitating HR in constructing this first impression robust and positive by redefining the whole employee entry process by designing maps, right from pre-hiring assessment and interviewing to Onboarding and employee orientation.
- (d) Data security and Transparency: Technologies has the ability to determine whether specific corruption, bribery or other potential misconducts is about to be accepted by an employee. Tools such as Big Data and In-memory technology allows companies to glance over massive amounts of non-structured data (e.g. emails, texts, scanned invoices etc.) and investigate for severe clues to unnecessary and potentially illegal activities Ernst & Young (the Accounting firm) is already using such kind of a tool.
- **(e) Increase Efficiency:** Robotics is a smart AI-machine learning technology that ascertains how a worker does a tiresome task. Robots are particularly useful in processes that involve a lot of data processing. Typical tasks for robots incorporate collecting data from XLS files or systems, running reports, copying data, checking data for completeness, reading, processing and accepting e-mails, taping data in HR or Payroll systems.
- **(f)** Enhance workplace learning: Cloud efficiency solutions such as Microsoft 365 can help employees to work and collaborate at uttermost ability without worsening time by generating a more rationalised working environment. AI tools can also help Hr function to make monogrammed career development requiring different learning and development programs, that will lift employee efficiency and job satisfaction; bring down work-stress level and employee turnover and many other benefits.
- (g) Enables Companies to stay competitive: Digital advancement has not remained a option, it has become an necessary part of viable and living strategies. The basis to the good technology is that it works for you. Whatever the size of your business, start with a strong digital

transformation strategy, and choose the right technology to fit your business objectives.

#### 6. Challenges of HR in Digital Transformation

As machineries are making impressions in Human resource department, the future of HR is challenging because employee ignores any form of reasoning as a threat to their job security. The role of HR would be more significant now to guarantee people of their skills and the essential to implement the same, while mechanizing the unnecessary parts of their jobs. Some of the possible challenges which an enterprise must facing are given below:

- (a) Resistance to change: Technology is not the projectile that will magically liberate us of all the issues it can't solve any problem unless we alter the basic mindsets People normally don't inspire change unless and until it is important.
- **(b)** Leadership support: A leader should be there to backing and motivate the technology as most of the companies won't able to practise with digitization as their managers or leader were not encouraging enough. So it is a compulsory thing to have a good leader's support that encourages revolution.
- (c) Getting the right talent: One of the vital things to encourage digital transformation is the cooperation of interdepartmental employees. Don't let the division to damage the system and for that safeguard the right technical advantage at right place which helps to bridge the gap between the developer and communicator.
- (d) Understanding Customer: Companies like Amazon, Uber, Airbnb, and Tesla have changed the prospects of the market forever. The regular consumer now requires brands to be able to figure out their exceptional wants and needs and generate a customized involvement to suit. Most business leaders comprehend this principle but often find themselves caught in a discussion about technology.

# 7. Findings & Conclusion

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The main purpose of this paper was to find out the meaning of digital transformation in Human resource management and how Hr functions are taking advantage of it. To our knowledge this study was first which have gone deeper into the meaning of digital transformation in terms of the whole HR by analysing the current tools.

#### References

- A. Bharadwaj, O. A. El Sawy, P. A. Pavlou and N. Venkatraman, Digital Business Strategy: Toward a Next Generation of Insights, MIS Quarterly (37 2) (2018), 471-482.
- [2] E. K. Clemons, How Information Changes Consumer Behavior and How Consumer Behavior Determines Corporate Strategy, Journal of Management Information Systems 25(2) (2018), 13-40.
- [3] M. Fitzgerald, N. Kruschwitz, D. Bonnet and M. Welch, Embracing Digital Technology, MIT Sloan Management Review (2017), 1-12.
- [4] R. G. Fichman, B. L. Dos Santos and Z. E. Zheng, Digital Innovation as a Fundamental and Powerful Concept in the Information Systems Curriculum, MIS Quarterly 38(2), 329-353.
- [5] N. Granados and A. Gupta, Transparency Strategy: Competing with Information in a Digital World, MIS Quarterly 37(2) (2017), 637-641.
- [6] T. Hennig-Thurau, E. C. Malthouse, C. Friege, S. Gensler, L. Lobschat, A. Rangaswamy and B. Skiera, The Impact of New Media on Customer Relationships, Journal of Service Research 13(3) (2016), 311-330.
- [7] R. J. Kauffman, T. Li and E. Heck, Van, Business Network-Based Value Creation in Electronic Commerce. International Journal of Electronic Commerce 15(1) (2017), 113-144.
- [8] C. Lankshear and M. Knobel, Digital Literacies: Concepts, Policies and Practices, Peter Lang International Academic Publishers, 2016.
- [9] H. C. Lucas, R. Agarwal, E. K. Clemons, O. A. El Sawy and B. Weber, Impactful Research on Transformational Information Technology: An Opportunity to Inform New Audiences, MIS Quarterly 37(2) (2016), 371-382.
- [10] K. Patel and M. P. McCarthy, Digital Transformation: The Essentials of E Business Leadership, McGraw-Hill Professional.
- [11] E. Piccinini, R. Gregory and L. Kolbe, Changes in the Producer-Consumer Relationship-Towards Digital Transformation, In 12<sup>th</sup> International Conference on Wirtshaftinformatik (pp. (2015) 1634-1648).
- [12] E. Stolterman and A. C. Fors, Information Technology and the Good Life, In: Information Systems Research: Relevant Theory and Informed Practice. Ed. Kaplan, B. et al., London: Kluwer (2015).