

**Digitization-An Impact on the Employment**

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## Executive Summary

*The following research proposal has been developed to set the direction for the execution of the actual study. For that reason, the two important project objectives i.e. the analysis of the influence of digitization on different business sectors and identification of the research gap. The scope of the project has also been set to find the impact of digital technology on the employment process of different companies. In order to fulfill these objectives and scope, the past literature has briefly reviewed in the proposal. Accordingly, the primary and secondary research questions have been designed for the future direction of the study. Furthermore, the qualitative, as well as quantitative methodologies have been selected for the collection and analysis of market data. In reference to this, the interviews of HR managers of manufacturing companies have been planned to conduct. Similarly, the questionnaire survey of employees of manufacturing companies has also been intended to perform. Only eight months duration has been set due to the limitation of time and budget.*

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## 1.1 Introduction

It has observed from the current performances of the industries that the organization has drastically changed in the last few years. The firms have become more efficient and productive in their daily activities. Even the speed of the organization operations has also been increased effectively. The actual fact behind all these developments is the emergence of digital technology in the global market. The acceptance of these technologies in the business sector has improved the conditions of traditional functions like manufacturing, recruitment, workforce management, marketing and so on (Westerman, Bonnet and McAfee, 2014). The analyses have identified that more than 50% improvement recorded in the internal and external functions of the organization. The implication of online systems and data management software has helped to bring consistency in the organization performance. Now, businesses can keep a proper record of their activities for long-term under limited costs (Mithas, Tafti, and Mitchell, 2013).

The major impact of digital technology has occurred in the employment of the companies. This is one of the detailed functions of any organization due to multiple steps and measurements. However, the use of the digital system has created ease in the recruitment and selection of new employees. The firms are not capable of making proper comparison between different applicants in order to hire right person (Brynjolfsson and McAfee, 2012). The study has shown that human capabilities and skills of the organization have enhanced after the revolution of organization operations into the digital system. The productivity of employees has been increased by 30% to 40% in the last few years. The need of new skills and talents has emerged in the industrial sectors. That is why the employment requirements of the organization have also improved. Now, the organizations prefer to hire people with the knowledge of the digital system and advanced technologies (Fitzgerald, Kruschwitz, Bonnet and Welch, 2014).

Therefore, the following research will be conducted to find the consequences of digitization over the employment of the companies. The employee, as well as organization, will be assessed to analyze how the digitization has transformed the strategies and approaches of the industrial sectors related to employment.

## 1.2 Project Objectives

The aim of the project is to assess the effect of digital technology on the employment. Therefore, some of the project objectives have developed to accomplish this aim, which is as follows,

- To analyze the influence of digitization on the employment system of different industrial sectors.
- To identify the gap in the previous research articles.

## 1.3 Project Scope

The scope of the research is based on the assessment of different industrial sectors regarding the effectiveness of digitalization on the employment conditions. In order to find this information, the past journal articles related to using of digital technology in the different companies would be acquired and reviewed thoroughly for the accomplishment of in-depth information.

## 1.4 Literature Review

As per the previous analysis, the process of digitization is the way to convert the operations of the firm from manual to automatic. It means the industries are now capable of performing their business activities with high efficiency. The digital technologies like smart phones, online socializing and communication system, cloud computing, social media and others have completely transformed the traditional working system of the industries. Accordingly, the digitization has enhanced the employment conditions of the each business sector. The concept of online working has also introduced in the market after the invention of online technology. Now, people have opportunity to work from home on flexible hours (Heeks, 2013).

In the different industries, the use of advanced technology has become a priority to manage the employment system and policies. Now, employers and employees are capable to make better coordination with each other. It has observed that the use of digital technology has increased the moral of workers towards their work responsibility. Since, the proper mechanism of feedback has emerged in the industries. Due to this situation, the management is able to keep simultaneously control over the performance of each employee. Furthermore, the mobile

applications have provided a chance for workers to acquire new information and knowledge according to their convenience. The learning process of the employees has become constant and flexible. Consequently, the human productivity in the industries has achieved 40% boost which is effective for the final outcomes of the companies (Coreynen, Matthyssens and Van Bockhave, 2017).

According to the previous survey, the 50% job opportunities are related to the information technology. In the OECD countries, 5% to 6% employment opportunities are based on the advance communication and technological processes (Borowiecki and Navarrete, 2017). Another study has presented that all industrial sectors i.e. primary, secondary and tertiary have become depended on technological systems. The organizations in these sectors have faced the major change in the attitude of employees. Especially, in tertiary and primary the employees have gained improvement in their daily activities. Due to this fact, the employees in these industries are willing to task risk or challenges. The more jobs have created in the industries, which has supported to improve the economic conditions of the world (Coreynen, Matthyssens and Van Bockhave, 2017).

The past literature has provided information about the increase in employment in the financial, hospitality, retail, marketing and service sectors. However, there is not information related to the employment ratio of manufacturing companies after the integration of digital systems and technologies. This is the major gap in the study of digitization process of different business sectors related to employment.

### **1.5 Research Questions**

On the basis of literature review, the primary and secondary research questions have formulated for the appropriate lead of the research. These research questions will help in the cover the gap of past literature.

*Primary Question:*

- What is the impact of digitization process on the employment system of manufacturing companies?

*Secondary Questions:*

- What is the contribution of digital technology in the enhancement of organization performance of manufacturing firms?
- What is the effect of digitization on the efficiency of the employees in manufacturing firms?

## **1.6 Research Design and Methodology**

### **Qualitative Research**

The Human Resource Managers of the manufacturing companies will be targeted to gather data about enhancement in employment after the emergence of digitization processes. The Survey Monkey sample size calculator has used to calculate the sample size of the qualitative study. The author has used average population size 100; confidence level 95% and margin of error 5% (see the appendix number 1). Accordingly, total 80 sample size has acquired after calculations. However, only 10 managers will be approached due to time and cost limitation. This data will be collected through the implementation of face to face interview. The place and time of the interview sessions will be set according to the convenience of the HR managers. Each session will be recorded on the mobile phone recorder in order to maintain validity in the end results and findings. The permission from the managers will be taken for the recording of discussions during interviews. The open-ended questions will be used to collect detailed information.

### **Quantitative Research**

The quantitative research will be performed through the market survey of employees of manufacturing companies. There are more than thousand employees in the market; however, only 370 will be approached to gather primary data. This sample size has calculated through Survey Monkey sample size calculator by putting population size 10000, confidence level 95% and 5% error margin (see the appendix number 2). The closed-ended questions will be presented in the questionnaire for the acquisition of valid and clear responses. Total 20 questions will be asked to attain a good amount of data about the impact of digitization on employment. However, these questionnaires will be developed after the literature review in the need to find research

variable. These questionnaires will be presented through a direct approach. It means the manufacturing companies will be visited to gather employees' responses. The reason behind the selection of direct approach is to maintain the authenticity and validity of the data.

### 1.7 Research Limitations

The development of current research was quite difficult for the researcher due to the emergence of some common limitations.

- The biggest problem for the author was the availability of limited duration for the completion of an entire study. The eight months period was not enough for the acquisition of detailed analysis. Due to this restriction, the author has failed to reach a large number of audiences for the collection of data.
- The second hurdle was related to the budget of the research. It is because the entire cost of the study was not enough to access online sources with charges or fees. The author was unable to expand its research in other markets due to budget limitation.

### 1.8 Time Schedule

Task	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18
Review of past articles for literature review	■							
Finalization of research objectives and questions	■	■						
Formation of quantitative and qualitative methods			■					
Face to face to interview of HR managers				■				
Market survey of employees through questionnaire				■	■			
Analysis of data					■			
Finalization of report						■	■	
Official publication								■

**Figure 1: Time Table for Research Completion**

(Source: Author's Own).

## 1.9 Conclusion

For the successful execution of current research, the author has developed research questions and objectives to assess the impact of digitization on the employment conditions of manufacturing companies. This the primary question of the research; however, the secondary research questions has designed to identify the influence of digitization on the efficiency of employees and performance of manufacturing firms. In order to accomplish these objectives and questions, the mixed methodology has selected. Accordingly, the interview sessions of HR managers and a questionnaire survey of employees of manufacturing companies has decided to perform. Total eight months period from July 2017 to Jan 2018 has set to complete the entire research. The two biggest limitations in the research process are time and budget limitation. That is why only 10 managers and 370 employees sample size have decided for data collection. The scope of the research is based on the evaluation of the effectiveness of digitization over the organization performance of manufacturing companies.

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## 1.11 Appendices

### Appendix 1

#### Sample Size Calculator

How many people do you need to take your survey? Even if you're a statistician, determining survey sample size can be tough.

Want to know how to calculate it? Our sample size calculator makes it easy. Here's everything you need to know about getting the right number of responses for your survey.

Calculate Your Sample Size:

Population Size:	<input type="text" value="100"/>	<div style="background-color: #2c4e64; color: white; padding: 5px; text-align: center; font-weight: bold;">Sample Size</div> <div style="border: 1px solid #ccc; padding: 20px; text-align: center; font-size: 2em; margin-top: 10px;">80</div>
Confidence Level (%):	<input type="text" value="95"/>	
Margin of Error (%):	<input type="text" value="5"/>	

(Source: Survey Monkey, 2017).

### Appendix 2

#### Sample Size Calculator

How many people do you need to take your survey? Even if you're a statistician, determining survey sample size can be tough.

Want to know how to calculate it? Our sample size calculator makes it easy. Here's everything you need to know about getting the right number of responses for your survey.

Calculate Your Sample Size:

Population Size:	<input type="text" value="10000"/>	<div style="background-color: #2c4e64; color: white; padding: 5px; text-align: center; font-weight: bold;">Sample Size</div> <div style="border: 1px solid #ccc; padding: 20px; text-align: center; font-size: 2em; margin-top: 10px;">370</div>
Confidence Level (%):	<input type="text" value="95"/>	
Margin of Error (%):	<input type="text" value="5"/>	

(Source: Survey Monkey, 2017).